

DOCUMENTATION
ELECTRONIC MIXING MACHINE
CYCLOMIX
MULTI / MULTI PH

Manual : 582.080.110-UK - 2201

Date : 04/01/22

Supersede : 23/05/16

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.

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<p align="center">FR</p> <p>Pour une utilisation sûre, Il est de votre responsabilité de :</p> <ul style="list-style-type: none"> • Lire attentivement tous les documents contenus dans le CD joint avant la mise en service de l'équipement, • 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, • Vous assurez que les utilisateurs de cet équipement ont été formés, ont parfaitement compris les règles de sécurité et qu'ils les appliquent. 	<p align="center">UK</p> <p>To ensure safe use of the machinery, it is your responsibility to:</p> <ul style="list-style-type: none"> • Carefully read all documents contained on the enclosed CD before putting the machinery into service, • Install, use, maintain and repair the machinery in accordance with SAMES KREMLIN's recommendations and national and/or local regulations, • Make sure that the users of the machinery have received proper training and that they have perfectly understood the safety rules and apply them. 	<p align="center">DE</p> <p>Eine sichere Nutzung setzt voraus, dass Sie: :</p> <ul style="list-style-type: none"> • alle in der CD enthaltenen Dokumente vor der Inbetriebnahme der Anlage aufmerksam lesen, • die Anlage im Einklang mit den Empfehlungen von SAMES KREMLIN sowie mit den nationalen und/oder lokalen Bestimmungen installieren, verwenden, warten und reparieren, • sich vergewissern, dass die Nutzer dieser Anlage angemessen geschult wurden, die Sicherheitsbestimmungen verstanden haben und sie anwenden.
<p align="center">ES</p> <p>Para una utilización segura, será de su responsabilidad:</p> <ul style="list-style-type: none"> • leer atentamente todos los documentos que se incluyen en el CD adjunto antes de la puesta en servicio del equipo, • 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, • cerciorarse de que los usuarios de este equipo han recibido la formación necesaria, han entendido perfectamente las normas de seguridad y las aplican. 	<p align="center">IT</p> <p>Per un uso sicuro, vi invitiamo a:</p> <ul style="list-style-type: none"> • leggere attentamente tutta la documentazione contenuta nel CD allegato prima della messa in funzione dell'apparecchio, • installare, utilizzare, mantenere e riparare l'apparecchio rispettando le raccomandazioni di SAMES KREMLIN, nonché le normative nazionali e/o locali, • accertarvi che gli utilizzatori dell'apparecchio abbiano ricevuto adeguata formazione, abbiano perfettamente compreso le regole di sicurezza e le applichino. 	<p align="center">PT</p> <p>Para uma utilização segura, é da sua responsabilidade:</p> <ul style="list-style-type: none"> • Ler atentamente todos os documentos incluídos no CD em anexo antes de pôr o equipamento em funcionamento, • 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, • Assegurar-se que os utilizadores do equipamento foram devidamente capacitados, compreenderam perfeitamente e aplicam as devidas regras de segurança.
<p align="center">NL</p> <p>Voor een veilig gebruik dient u:</p> <ul style="list-style-type: none"> • alle document op de bijgevoegde cd aandachtig te lezen alvorens het apparaat in werking te stellen, • het apparaat te installeren, gebruiken, onderhouden en repareren volgens de door SAMES KREMLIN gegeven aanbevelingen en overeenkomstig de nationale en/of plaatselijke reglementeringen, • zeker te stellen dat de gebruikers van dit apparaat zijn opgeleid, de veiligheidsregels perfect hebben begrepen en dat zij die ook toepassen. 	<p align="center">SE</p> <p>För en säker användning av utrustningen ansvarar ni för följande:</p> <ul style="list-style-type: none"> • Läs noga samtliga dokument som finns på den medföljande cd-skivan innan utrustningen tas i drift. • Installera, använd, underhåll och reparera utrustningen enligt anvisningarna från SAMES KREMLIN och enligt nationella och/eller lokala bestämmelser. • Försäkra er om att användare av denna utrustning erhållit utbildning, till fullo förstått säkerhetsföreskrifterna och tillämpar dem. 	<p align="center">FI</p> <p>Käytön turvallisuuden varmistamiseksi velvollisuutesi on:</p> <ul style="list-style-type: none"> • Lukea huolella kaikki CD:llä olevat asiakirjat ennen laitteiston käyttöönottoa, • Noudataa laitteiston asennuksessa, käytössä, kunnossapidossa ja huollossa SAMES KREMLIN in suosituksia sekä kansallisia ja/tai paikallisia määräyksiä, • Varmistaa, että laitteiston käyttäjät ovat koulutettuja ja ymmärtävät täysin turvallisuusmääräykset ja miten niitä sovelletaan.
<p align="center">PL</p> <p>Dla zapewnienia bezpiecznego użytkowania na użytkownika spoczywa obowiązek:</p> <ul style="list-style-type: none"> • Uważnego zapoznania się ze wszystkimi dokumentami znajdującymi się na załączonej płycie CD przed pierwszym uruchomieniem urządzenia, • Instalowania, użytkowania, konserwacji i naprawy urządzenia zgodnie z zaleceniami firmy SAMES KREMLIN oraz z przepisami miejscowymi, • Upewnienia, że wszyscy przeszkoleni użytkownicy urządzenia zrozumieli zasady bezpieczeństwa i stosują się do nich. 	<p align="center">CS</p> <p>Pro bezpečné používání jste povinni:</p> <ul style="list-style-type: none"> • Před uvedením zařízení do provozu si pozorně přečtět veškeré dokumenty obsažené na přiloženém CD, • Nainstalovat, používat, udržovat a opravovat zařízení v souladu s pokyny firmy SAMES KREMLIN a s národními a/nebo místními legislativními předpisy, • Ujistit se, že uživatelé tohoto zařízení byli vyškoleni, že dokonale pochopili bezpečnostní pravidla a že je dodržují. 	<p align="center">SL</p> <p>Za varno uporabo ste dolžni:</p> <ul style="list-style-type: none"> • natančno prebrati vse dokumente na CD pred zagonom stroja, • instalirati, uporabljati, vzdrževati in popravljati opremo po določilih SAMES KREMLIN in v skladu z veljavnimi nacionalnimi in/ali lokalnimi predpisi, • poskrbeti, da so uporabniki te opreme ustrezno usposobljeni, poznajo varnostne predpise in da jih upoštevajo.
<p align="center">SK</p> <p>V záujme bezpečného je vašou povinnosťou:</p> <ul style="list-style-type: none"> • pozorne si prečítať všetky dokumenty obsiahnuté na priloženom CD predtým, ako zariadenie uvediete do prevádzky, • nainštalovať, používať, udržiavať a opravovať zariadenie v súlade s odporúčaniami spoločnosti SAMES KREMLIN a národnými a/alebo miestnymi predpismi, • uistiť sa, že používatelia tohto zariadenia boli zaškolení, riadne porozumeli pravidlám bezpečnosti a používajú ich. 	<p align="center">HU</p> <p>A biztonságos használat érdekében az Ön felelőssége, hogy:</p> <ul style="list-style-type: none"> • a berendezés üzembe helyezésé előtt figyelmesen elolvassa a mellékelt CD által tartalmazott összes dokumentumot, • a berendezést a SAMES KREMLIN ajánlásainak valamint a nemzeti és/vagy helyi szabályozásoknak megfelelően helyezze üzembe, használja, tartsa karban és javítsa, • megbizonyosodjon róla, hogy a berendezés felhasználói képzettek, tökéletesen megértették és alkalmazzák a biztonsági előírásokat. 	<p align="center">RO</p> <p>Pentru o utilizare sigură, este responsabilitatea dvs. să:</p> <ul style="list-style-type: none"> • Citiți cu atenție toate documentele de pe CD-ul anexat, înainte de punerea în funcțiune a echipamentului, • Instalați, utilizați, întrețineți și reparați echipamentul conform instrucțiunilor SAMES KREMLIN precum și reglementărilor naționale și/sau locale, • Vă asigurați că utilizatorii acestui echipament au fost instruiți, au înțeles perfect regulile de securitate și le aplică integral.

Déclaration(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 / Deklaracja(e) o skladnosti na hrtni strani tega dokumenta / Vyhlášení/-a o zhode sa nachádzajú na zadnej strane dokumentu / A dokumentum hátlapján szereplő megfeleléségi nyilatkoz(ok) / Declarații de conformitate pe versoul acestui document



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DECLARAÇÃO UE DE CONFORMIDADE
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EU-VAATIMUKSEN MUKAISUUSVAKUUTUS
DEKLARACJA ZGODNOŚCI UE
EU PROHLÁŠENÍ O SHODĚ
IZJAVA EU O SKLADNOSTI
VYHLÁSENIE O ZHODE
EU-MEGFELELŐSÉGI NYILATKOZAT
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:	SAMES KREMLIN SAS 13, chemin de Malacher 38 240 - MEYLAN - FRANCE Tél. : 33 (0)4 76 41 60 60
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Déclare que le matériel désigné ci-après / Herewith declares that the equipment / erklart 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 / Oświadczam, że wymienione poniżej urządzenia / Prohlašuje, že níže uvedené vybavení / Izjavljam, da je opisana oprema spodaj / Vyhlasuje, že zariadenie uvedené nižšie / Kijelenti, hogy a megjelölt anyag a továbbiakban / Declară că echipamentul precizat mai jos:

MACHINE DE DOSAGE ELECTRONIQUE / MIXING MACHINE
ELEKTRONISCHE 2-K- ANLAGE / MÁQUINA DE DOSIFICACIÓN ELECTRÓNICA

CYCLOMIX™ MULTI
CYCLOMIX™ MULTI PH

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 következő alkalmazandó uniós harmonizációs szabályozásnak / Este conform cu legislația aplicabilă de armonizare de mai jos

Directive Basse Tension / Low Voltage Directive / Niederspannung-Richtlinie / Directiva Baja Tensión / Direttiva Bassa Tensione / Directiva de Baixa Tensão / Richtlijn Laagspanning / Lågspänningsdirektiv / Pienjännitedirektiivi / Dyrektywa Niskonapięciowa / Směrnice Pro Nízké Napětí / Direktiva O Nizki Napetosti / Smernica O Nízkom Napätí / Feszültséghatárra Vonatkozó Irányelv / Directiva Privind Tensiunile Joase	2014/35/UE
Directive Compatibilité Electromagnétique / Electromagnetic Compatibility Directive / Richtlinie Für Elektromagnetische Verträglichkeit / Directiva de Compatibilitate Electromagnética / Direttiva Compatibilità Elettromagnetica / Directiva relativa à Compatibilidade Eletromagnética / Richtlijn Elektromagnetische Compatibiliteit / Direktivet om Elektromagnetisk Kompatibilitet / EMC-direktivi / Dyrektywa Kompatybilności Elektromagnetycznej / Směrnice Pro Elektromagnetickou Kompatibilitu / Direktiva O Elektromagnetni Združljivost / Smernica O Elektromagnetickej Kompatibilite / Az Elektromágneses Összeférhetőségre vonatkozó Irányelv / Directiva Privind Compatibilitatea Electromagnetică	2014/30/UE
Directive ATEX / ATEX Directive / ATEX Richtlinie / Directiva ATEX / Direttiva ATEX / Diretiva ATEX / ATEX-Richtlijn / ATEX-direktiv / ATEX-direktivi / Dyrektywa ATEX / Směrnice ATEX / Direktiva ATEX / Smernica ATEX / ATEX-irányelv	2014/34/UE

Tous les composants électriques utilisés en zone 1 sont, individuellement conformes à la directive 2014/34/UE. Leur présence combinée au sein de l'assemblage ne met pas en évidence de risques supplémentaires entraînant une évaluation globale de type de la machine. / Each individual electrical component used in zone 1 is in conformity with the 2014/34/UE directive. Their combined presence in the assembly has not highlighted any additional risks that would necessitate a comprehensive assesment of this type of machinery.

Matériel / Equipment	N° d'agrément / Approval N°
Barrière Zener / Zener barrier	BAS 01 ATEX 7005
Electrovanne / Electrovalve ATEX	LCIE 12 ATEX 3005 X
Capteur / Sensor element ATEX	BVS 08 ATEX E 101

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 shodě 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.



Philippe PROVENAZ

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 / Riaditel' 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 01/02/2017 - 02/01/2017



INSTRUCTION MANUAL

CYCLOMIX™ MULTI CYCLOMIX™ MULTI PH MIXING MACHINE

Manual : 1302 573.185.112

Date : 01/02/13 - Supersede : 10/02/12

Modif : Label markings + Screens updated + Page 34

TRANSLATION OF THE ORIGINAL MANUAL

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

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ADDITIONAL DOCUMENTS :

<u>Declaration</u>	EC declaration of conformity	Doc. 578.033.130-UK
<u>Annexes</u>	Pneumatic and electric diagrams Mixing ratio chart	Doc. 573.185.120
<u>Spare parts</u>	Cyclomix or Cyclomix PH	Doc. 573.344.050 or Doc. 573.358.050
	Color changer	Doc. 573.186.112 + 573.187.050 + 573.188.050
	Flow switch	Doc. 573.320.050
	AIRMIX® filter	Doc. 573.253.050

Dear Customer,

You are the owner of our new mixing machine and we would like to take this opportunity to thank you.

To make sure your investment will provide full satisfaction, special care has been taken by **SAMES KREMLIN** during all designing and manufacturing processes.

To obtain the best result, safe and efficient operation of your equipment, we advice you to read and make yourself familiar with this instruction and service manual. Indeed, the non-compliance with instructions and precautions stated in this manual could reduce the equipment working-life, result in operating trouble and create unsafe conditions.

1. GENERAL SAFETY INSTRUCTIONS



The CYCLOMIX™ MULTI mixing machine control bay shall be installed outside the explosive area. It shall be installed in a safe area (non-explosive area according to the ATEX directive - refer to § 6).

WARNING : Any misuse of the equipment or accessories can damage them, result in serious body injury, fire or explosion hazard and reduce the equipment working life. Read, understand and comply with the safety instructions hereafter.

The personnel involved in operating and servicing this equipment must be aware of all safety requirements stated in this manual. The workshop supervisor must be certain that the personnel has perfectly understood the safety instructions and complies with them.

Read all instruction manuals as well as the tags of the equipments before operating the equipment.

Read local safety instructions and comply with them.

■ INSTALLATION REQUIREMENTS

☞ Ground the equipments.

Use the equipment only in a well-ventilated area to prevent from serious body injuries, fire and explosion hazards. Do not smoke in the spray area.

Never stock paints and solvents in the spray area. Always close the pots and the tins.

Keep the spray area clean and free from debris (solvent, rags,...). Read paint and solvent manufacturer's technical instructions. Spraying of some materials may result in hazardous working conditions. To protect the operator, respirator mask, hand cream and glasses are required (Refer to chapter "Safety equipment" of **SAMES KREMLIN** selection guide).

■ EQUIPMENT REQUIREMENTS

The operating pressure of these equipments is particularly high. Consequently, some precautions must be taken in order to prevent from accidents and from unsafe working conditions.

☞ Never exceed the components maximum working pressure of the equipment.

HOSES

Do not use hoses with a maximum burst-proof pressure less than four times the maximum service pressure of the pump (see data sheet).

Be certain hoses are not crimped, leaking and not unrolled.

Be certain hoses are in good conditions and showing no evidence of damage.

☞ Use only air hose with static conductor to connect the pump with the spray gun.

All fittings must be tight and in good condition.

PUMP

☞ Ground the equipment (use the connection on the pump).

Do not use any product or solvent incompatible with the pump components.

Use the appropriate solvent for the material being sprayed to increase the equipment working life.

GUN

Never wipe the end of the tip with the fingers.

Always depressurize air and fluid hoses before carrying out any servicing on the gun.

Never point the spray gun at anyone or at any part of the body.

CYCLOMIX™ MULTI

➡ Do not install the control bay in an explosive area. It shall be in a safe area (non-explosive area).

➡ Connect the control box to a mains supply fitted with a ground.

➡ A earth cable fits the material box. Connect the earth cable to a ground.

Do not use any product or solvent incompatible with the machine components.

Use the appropriate solvent for the material being sprayed to increase the equipment working life.

➡ Wear protective glasses to protect the operator from possible discharges during the handling of the CYCLOMIX™ MULTI machine test valves.

➡ Do not use electrostatic spraying for water-based paints or paints with a resistivity lower than 10 MΩ.

■ MAINTENANCE REQUIREMENTS

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.

➡ Never modify these equipments.

Check them daily, keep them in a good condition and replace the worn parts **only with SAMES KREMLIN parts.**

Before cleaning or removing components of the equipment, it is compulsory :

- 1 - to stop the air supply,
- 2 - to open the gun fluid circuit to depressurize the hoses,
- 3 - to shut off the machine electrical supply,
- 4 - to open the drain valves.

■ ENVIRONMENT



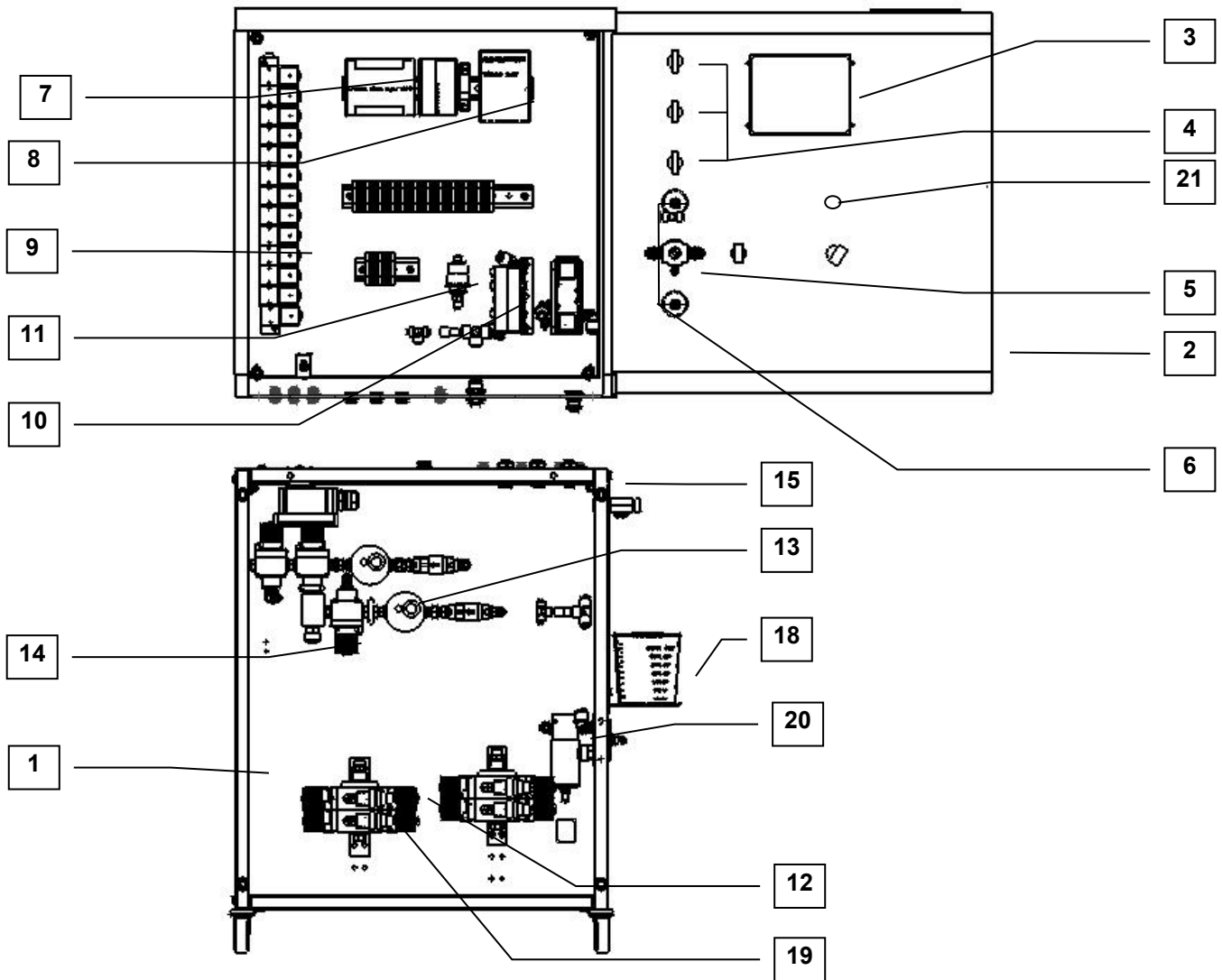
This equipment consists of a label plate with the name of the manufacturer, the equipment part number, the interesting informations to use correctly the equipment (pressure, voltage...) and the above pictogram.

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

The 2002/96/EC 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 according to local rules and **do not throw the old equipments with household wastes.** A correct disposal of the old equipment will help prevent negative consequences for the environment and health.

2. DESCRIPTION

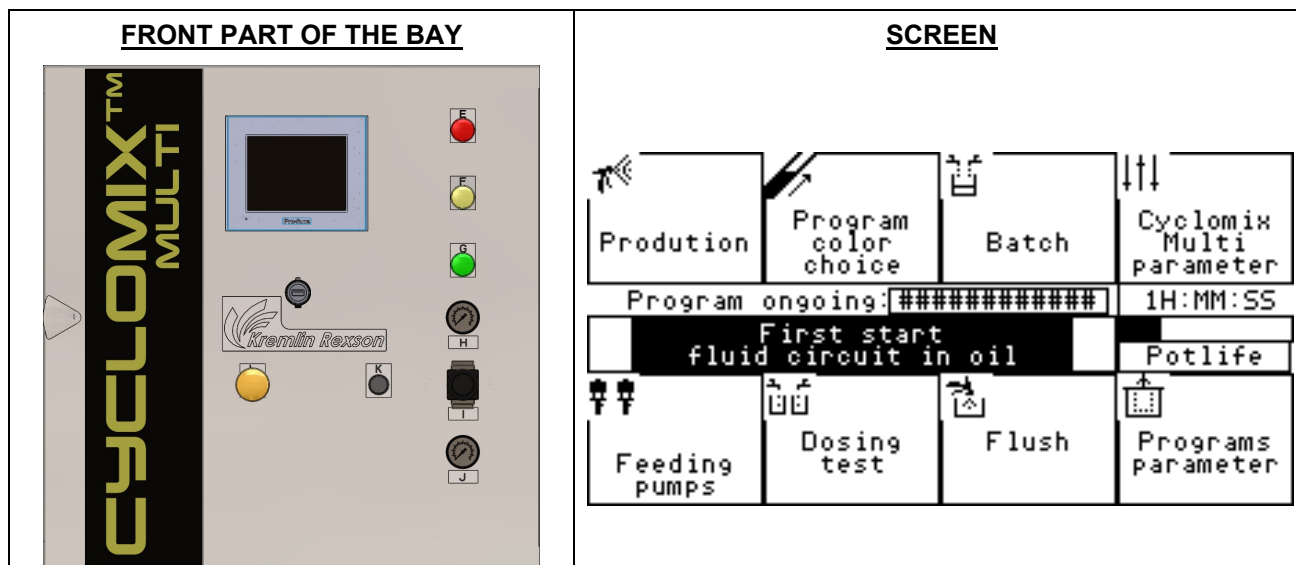


1	Frame
2	Control bay
3	Screen
4	LED
5	Air regulator
6	Gauge
7	Automaton
8	Supply
9	Electrovalve
10	Flowmeter
11	Pressure switch

12	Color changer
13	Meter
14	Automatic valve
15	Test valve (TA & TB)
16	Cord grip (robot interface unit)
17	Cord grip (STD9 box supply)
18	Beaker support (test valves)
19	Airmix® filter in line
20	Air filters
21	USB Port
	IN0 (cata) - IN1 (base) : automaton inlets

The CYCLOMIX™ MULTI mixing machine is designed for applying two-component paints and varnishes (water-based or solvanted). It is available for 3 technologies of application : pneumatic spraying, AIRMIX® spraying, AIRLESS® spraying (maximum pressure : 200 bar / 2,900 psi).

It comes in an independent and moving form. It is only supplied with compressed air (maximum 6 bar / 87 psi). It consists of : a control bay with automaton and electropneumatic control components, a frame with a module that receives the volumetric meters and the automatic valves for materials and solvents.



Ind.	Description	Function
E	Red LED	Fault
F	Orange LED	Operating (except production)
G	Green LED	Production
H	Gauge	Reading of the spraying air pressure (gun)
I	Air regulator	Adjustment of the spraying air pressure (gun)
J	Gauge	Reading of the CYCLOMIX™ MULTI air supply pressure
K	Black push-button	Emergency flushing if electricity shut off
L	Yellow push-button	Function stop

The machine is totally programmable via a man/machine interface. The screen indicates continuously, by a simple identification, the statuses of the machine and enables to have access to the essential functionalities : ON / OFF - FLUSHING - PRODUCTION.

The informations relating to the operating of the machine (real-time display of the ratio, of the consumption...) can be read on the LCD screen.

The CYCLOMIX™ MULTI saves continuously the instantaneous consumptions of base, catalyst and solvent as well as the total consumptions and the emissions of Volatile Organic Compounds (VOC) during the operating of the machine.

On the cover plate, there are two cord grips. They are useful for the interface unit with a robot in the situation of an automatic spraying and for supplying a STD9 box (115V / 230V) in the situation of using an electrostatic gun.



Do not use electrostatic spraying for water-based paints or paints with a resistivity lower than 10 MΩ.

3. OPERATING PRINCIPLE

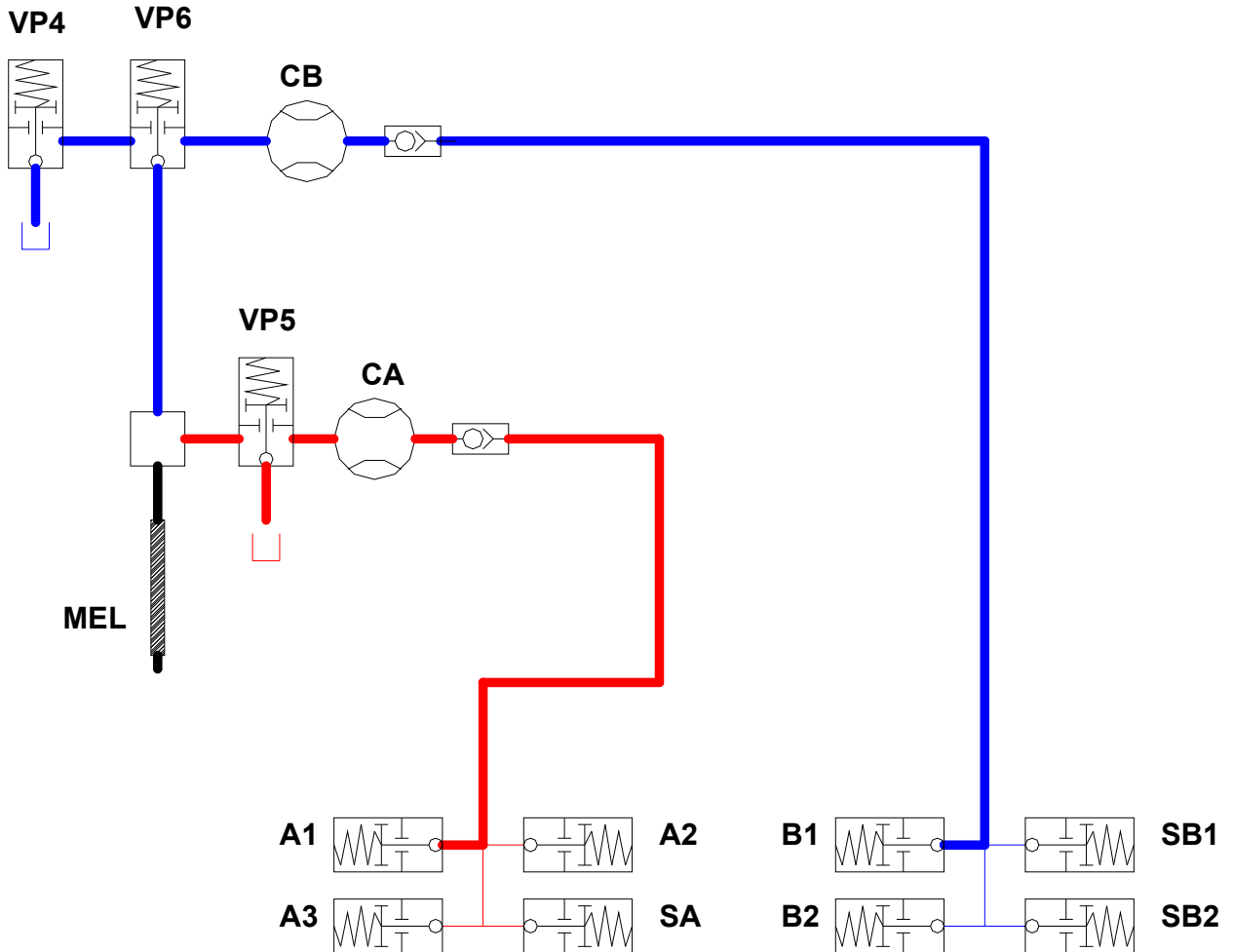
The BASE and CATALYST materials are sent to the mixing machine from pumps or pressure tanks.

Each material crosses a piloted valve and a meter. The cycle begins with the simultaneous opening of the CATALYST and BASE valves. The 2 meters send their informations to the computer that shuts off the catalyst valve when the computerized mixing ratio is reached.

The mixing process is based on a base constant flow. The catalyst flow is injected low in frequency. The injection is made directly into the base flux at the mixer level.

The automaton checks continuously the mixing ratio and if it notices a fault that it cannot correct, an alarm is activated. The machine goes on safety mode.

Example of machine : 2 catalysts and 3 colors



A1	Base 1 piloted valve
A2	Base 2 piloted valve
A3	Base 3 piloted valve
SA	Base solvent piloted valve
B1	Cata 1 piloted valve
SB1	Cata 1 solvent piloted valve
B2	Cata 2 piloted valve

SB2	Cata 2 solvent piloted valve
VP4	Cata test piloted valve
VP5	Base test piloted valve
VP6	Injection piloted valve
CA	Base meter
CB	Cata meter
MEL	Mixer

4. TECHNICAL FEATURES

<p>Number of colors : from 1 to 7 Number of catalyst : from 1 to 3 Solvent and water-based paints compatibility Possibility of automatic piloting via robot Control external PLC Batch Different access levels to the software Multilingual display Display on the screen, in text form of the machine operating, parameters, alarms and faults</p> <p>Mixing permanent check Adjustable threshold alarm Adjustable pot-life indicator Automatic mixing control cycle Automatic flushing cycle VOC display Total indicator for base, catalyst and solvent consumption</p>	<p>Voltage : 230V / 115V - 75W Minimum air pressure : 4 bar / 58 psi Fluid pressure : from 2 to 200 bar / from 29 to 2900 psi Weight : 65 kg / 143 lbs Control box dimension : ⇒ l = 600 mm / 23.6" , h = 600 mm / 23.6", depth = 210 mm / 8.27" Material box dimension : ⇒ l = 600 mm / 23.6" , h = 770 mm / 30.3", depth = 400mm / 15.75" Stainless steel fluid circuit (base and catalyst) for Cyclomix multi standard 316 L stainless steel catalyst circuit for Cyclomix multi PH Adjustable mixing ratio : from 0,6/1 to 20/1 and one component (BASE volume / CATALYST volume) (from 166% to 5% and 0%) Measure precision : 1 % Mixed fluid flow : from 50 to 2000 cm³/mn Fluid viscosity : from 30 to 5000 cps</p> <p>OPTION : Auto-wash Remote control box Fiber optic kit</p>
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5. INSTALLATION

■ DESCRIPTION OF THE LABEL MARKINGS

The CYCLOMIX™ MULTI machine is fitted with 2 label markings : a label marking on the control box and another one on the material box.

Kremlin Rexson
STAINS FRANCE

CE

Tension

P air

P prod

Serie/Serial

Ref

Phase

Fréquence

Ampérage

NE PAS DEBRANCHER SOUS TENSION
DO NOT DISCONNECT WHILE POWER IS ON

Label marking on the control box
(box located outside the spray booth)

Kremlin Rexson
STAINS FRANCE

CE Ex II2G

P air

P prod


Serie/Serial

Ref

NE PAS DEBRANCHER SOUS TENSION
DO NOT DISCONNECT WHILE POWER
IS ON

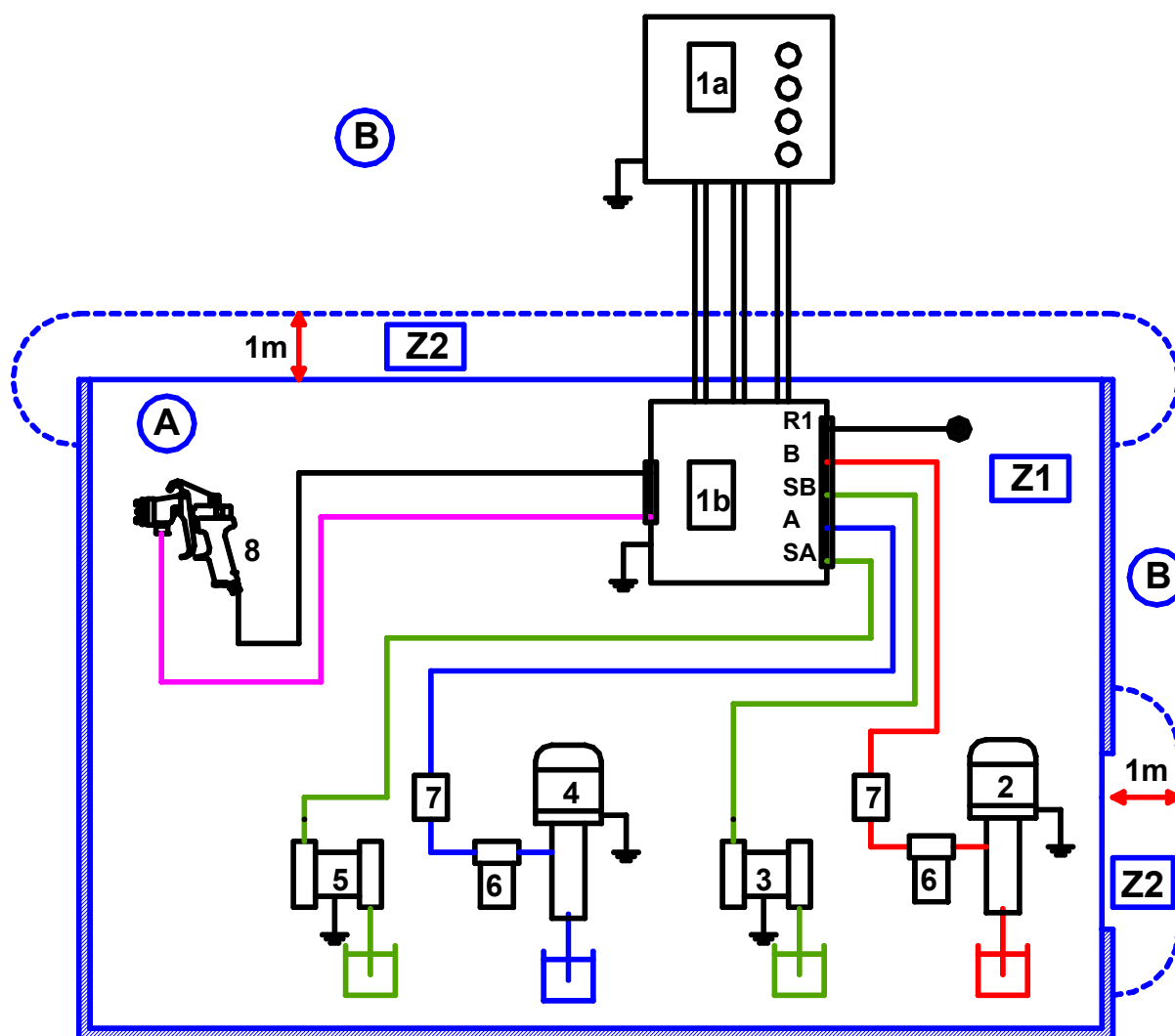
Label marking on the material box
(material box located inside the spray booth → marking in accordance with the ATEX directive)

Marking in accordance with the ATEX Directive

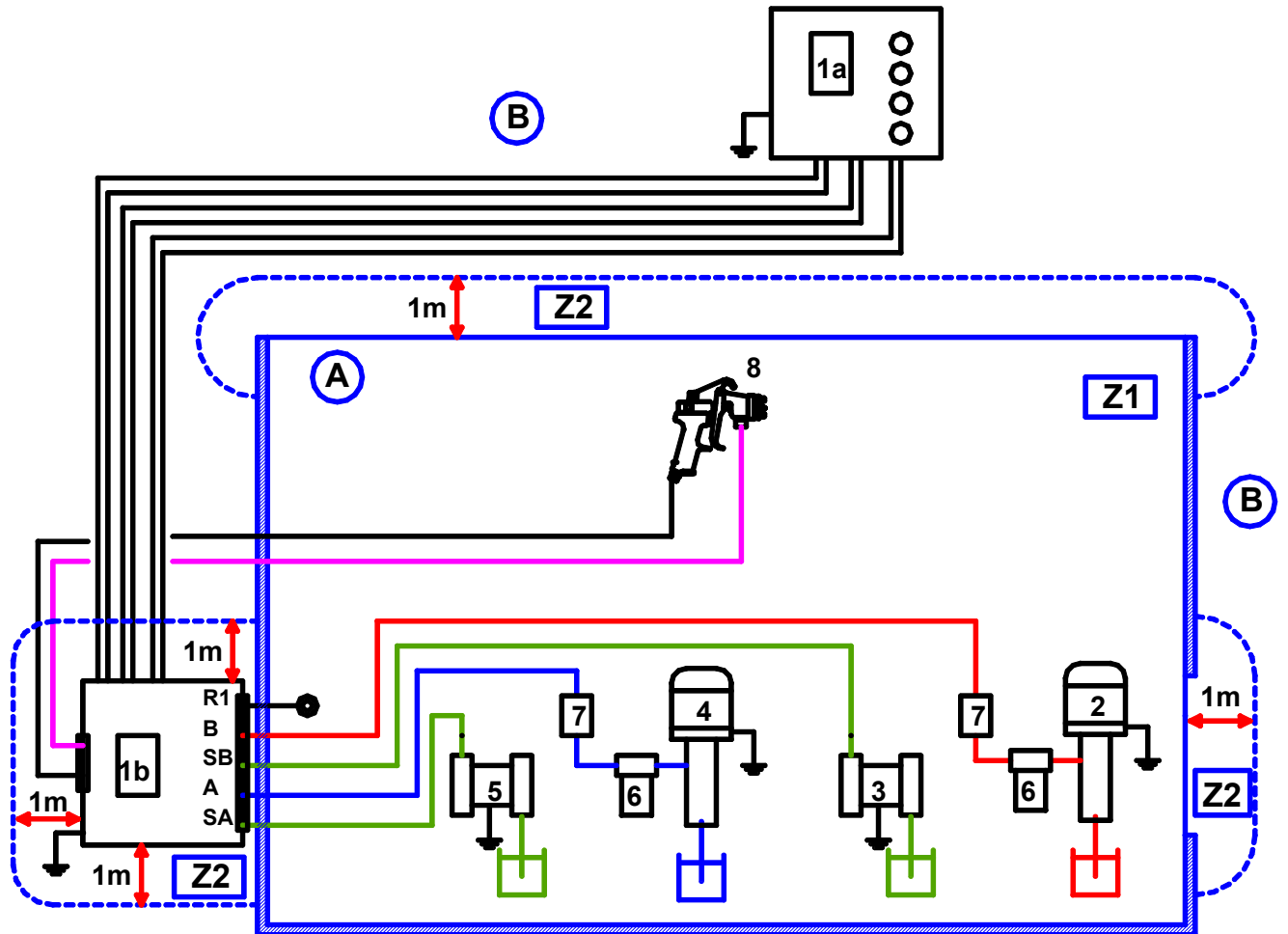
SAMES KREMLIN STAINS FRANCE	Name and address of the manufacturer
CE  II 2 G	II : group II 2 : class 2 Surface equipment meant to an area where explosive atmospheres due to gas, vapours, mists are liable to appear from time to time in usual operating. G : gas
Tension	CYCLOMIX™ MULTI machine voltage
P air	Maximum air pressure
P prod	Maximum fluid pressure
Serie / Serial	Number given by SAMES KREMLIN. The two first numbers indicate the manufacturing year.
Ref	CYCLOMIX™ MULTI machine part number
Phase	Single phase
Fréquence	50-60Hz / Mains frequency
Ampérage	Maximum current used

■ **INSTALLATION DIAGRAMS**

1 - INSTALLATION OF THE FLUID PART IN A SPRAYBOOTH



2 - INSTALLATION OF THE FLUID PART OUTSIDE THE SPRAYBOOTH



A	Explosive area : area 1 (Z1) or area 2 (Z2) (spray booth)	4	BASE pump
B	Non-explosive area (safe area)	5	SOLVENT pump (base)
1	CYCLOMIX™ MULTI mixing machine 1a : Control bay 1b : Fluid part	6	Filter
2	CATA pump	7	Fluid pressure regulator
3	SOLVENT pump (cata)	8	Gun



The 1 m / 39.37" distance indicated in these diagrams is given for information only and holds harmless SAMES KREMLIN. The user is liable for the exact delimitation of the areas which depends on the material used, the material environment and on the use conditions (refer to EN 60079-10 standard). The 1 m / 39.37" distance could be adapted if the analysis carried out by the user requires it.



Connect the control box to a mains supply fitted with a ground.
A earth cable fits the material box. Connect the earth cable to a ground.

■ CONNECTION OF THE CONTROL BAY AND OF THE MATERIAL PART



The control box of the CYCLOMIX™ MULTI mixing machine must be outside the spray booth.

Check the mains voltage and the voltage of the CYCLOMIX™ MULTI machine.

The CYCLOMIX™ MULTI must be connected to a clean and dry compressed air network (minimum 4 bar / 58 psi) and to a single-phase electric supply (230 V / 115V). An air filter installed on the air supply of the machine equips the CYCLOMIX™ MULTI.



The length of the connections between the control bay and the material part must not exceed 10 meters.

Assemble fluid hoses and air hoses between the pumps and the CYCLOMIX™ MULTI and between the CYCLOMIX™ MULTI and the gun. When choosing fluid hoses, respect the pressures delivered by the pumps. For the air hoses, assemble antistatic hoses.

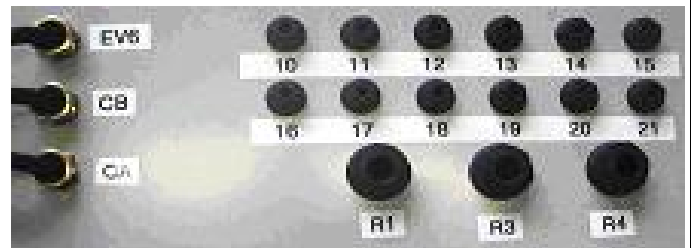
You will connect on top part of the material part frame :

R1 (Polyamide hose 7X10) : air supply hose

R3 (Polyamide hose 7X10) : box supply hose (to connect on R3 of the box cover plate)

R4 (Polyamide hose 7X10) : spraying air supply hose (to connect on R4 of the box cover plate)

From 10 to 21 (hose 2.7X4) : to connect on the box cover plate (same marking)



Connection of the meters and of the catalyst injection electrovalve :

CA (electric cable 3 points)

CB (electric cable 3 points)

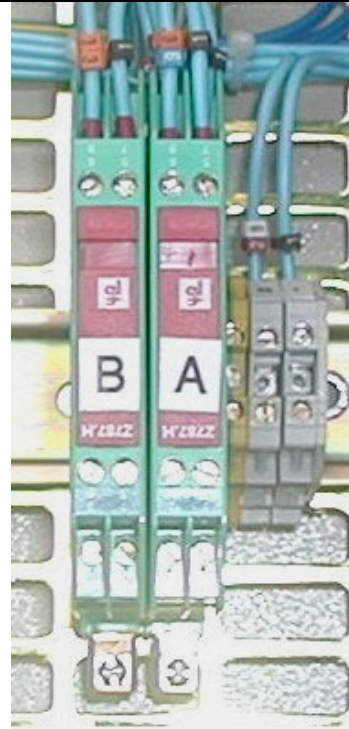
→ Electric cables 3 points supplied.

ZENER barriers → refer to electric diagram (see "Annexes" - Doc. 573.185.120)

EV6 (electric wire 2 points) :

→ Electric cable 2 points supplied.

wire index 1 on the terminal 1 and wire index 29 on terminal 29 of the box.



Gun connection :

Connect the gun on the 2 outlets located on the plate on the right (air and fluid supply).

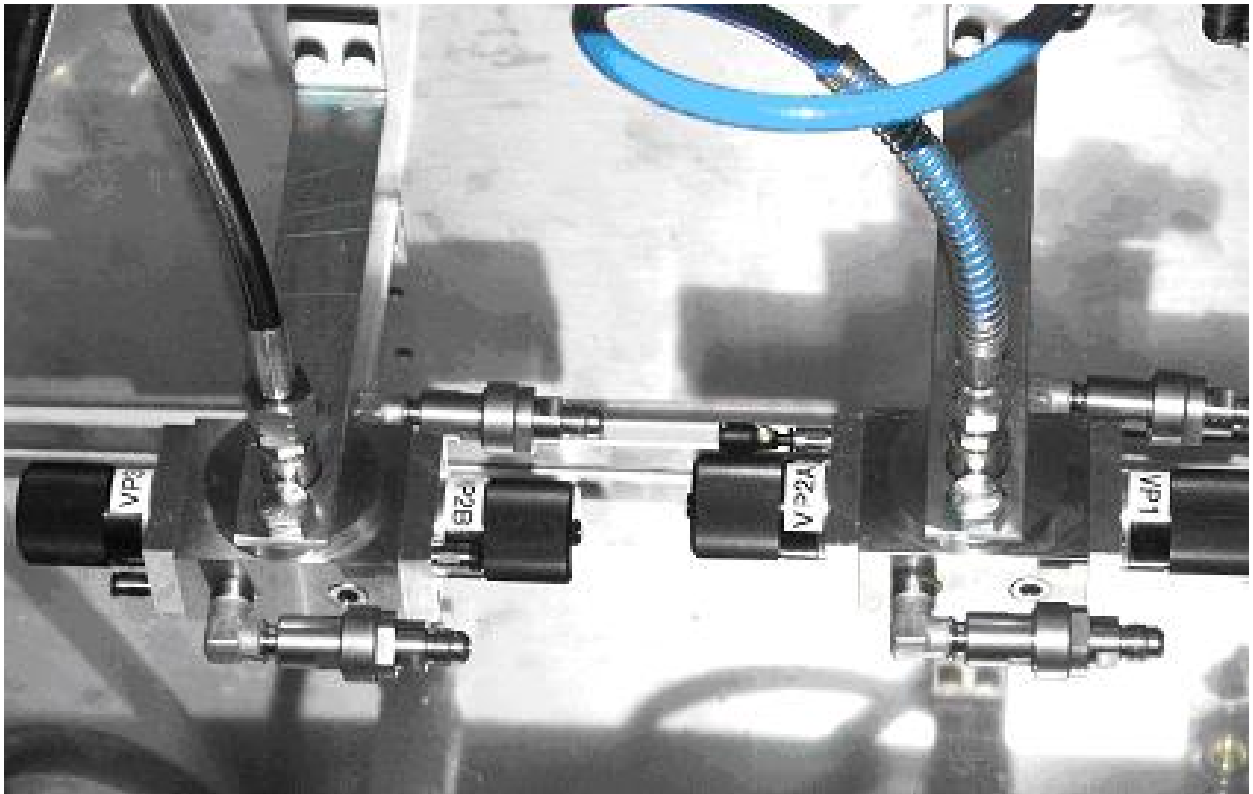
R2 (F 1/4 BSP) : air hose

D (F 1/4 BSP) : mixed fluid hose

AW : supply of the auto-wash pneumatic push-button (cord grip, polyamide hose 4X6)



Some Airmix® in line filters are mounted on the base and catalyst color changers.



In the standard version, # 6 screens come with filters. They must be adapted to the material to be mixed and changed if necessary (refer to Spare parts).

Hoses with fittings : fluid hoses on the Airmix® filters = male 1/2 JIC.



Assemble filters at the outlet of the BASE and CATA pumps.

Assemble pressure regulators at the outlet of the BASE and CATA pumps.

➔ Before connecting the CYCLOMIX™ MULTI, be certain the mains voltage is the same than the one of the machine (230 V).

If no, open the door of the bay and switch over the supply switch (ind.8) (230V → 115V).

Unscrew all regulators before supplying air to the installation.

Shut off the test valves (TA & TB).

6. OPERATING

■ DRIVING FROM THE MACHINE

SCREEN

The different menus and the informations relating to the machine are displayed on the screen.

➔ **Read carefully the messages and follow the instructions to operate the machine.**

To surf from a menu to another, depress the screen.

■ SWITCHING ON THE MACHINE



The placing of the system into operation requires that the BASE, CATALYST and SOLVENT drums are full enough to ensure the production.

Connect the gun before placing the system into operation.

Supply control bay via the safety isolating switch (single-phase electric supply = 230 V/115V).

Switch on the bay (switch located on the side of the bay).

Supply air to the material part (index « R1 » minimum 4 bars / 58 psi), then connect the index R3 of the material part to the index R3 of the CYCLOMIX™ MULTI control bay.

The supply pressure is read on the gauge located on the front part of the bay (index « J »).

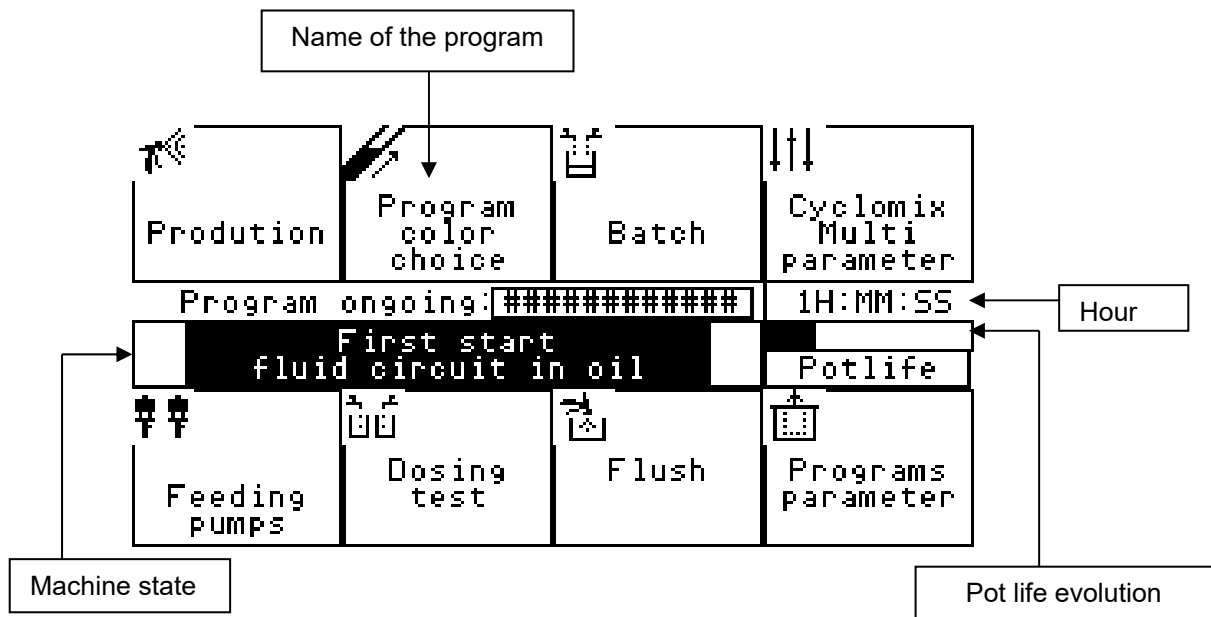
Supply air to the pumps' air regulators (BASE, CATALYST, SOLVENT).

When switching on the bay, a menu is displaced on the screen.

Nota : Parameters have been programmed in the factory before the delivery of the machine. You must adapt the parameters to the use. They must be modified by an authorized person (refer to list of parameters).

7. FIRST SWITCHING ON

STANDARD MENU



Production	Enables to make a priming then produce according to the parameters defined
Program choice	Enables to choose a program to produce
Batch	Enables to deliver a quantity of mixed material to define via TA & TB
Cyclomix parameters	Enables to enter into the CYCLOMIX™ MULTI parameters
Pump priming	Enables to prime the pumps during the first starting up
Carry out a test	Enables to carry out a mixing ratio test
Flush the cyclomix	Enables to flush the CYCLOMIX™ MULTI with solvent
Programs' parameters	Enables to view, modify or print the parameters of each program as well as the consumptions of materials

Read the messages displayed on the screen and follow the instructions to operate the machine.



Go to " Program choice" each time you start the machine to confirm the shade in progress.

8. FIRST PLACING INTO OPERATION

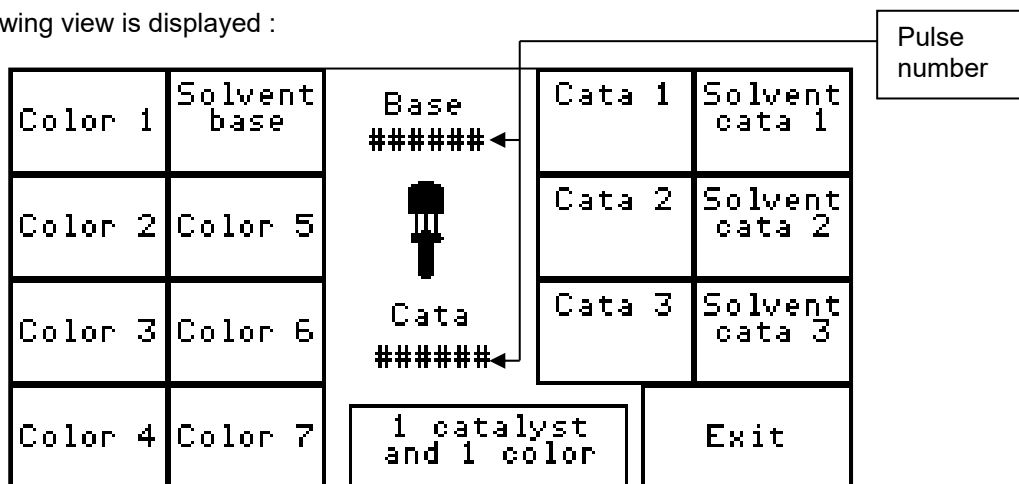


During that first placing into operation, it is compulsory to have all the pumps into solvent as well as the machine to ensure the good quality of the fluid get by the CYCLOMIX™ MULTI.

■ FLUSHING OF THE PUMPS AND OF THE MACHINE INTO SOLVENT

- Carry out the connection indicated at § 6 (INSTALLATION).
- Shut off the 2 test outlets TA and TB and place a receptacle under these ones.
- Start the pumps with solvent and increase the fluid pressure to 1 bar / 14.5 psi.
- On the page of the display main menu, input «Pumps' priming».

The following view is displayed :



Keep the name of the pump pressing and open the corresponding test outlet so that the fluid drains off.

Let flow during 1 minute and check that the activated meter pulse number counts properly.

Nota : The keys corresponding to the colors and to the catalysts which are not present in the installation are inactive.

■ START-UP OF THE MACHINE

- Start-up the pumps with materials.
- Shut off the test outlets TA and TB.
- Put the fluids at the pressure of production. Do not forget that the pressure of the catalyst must be **higher** than the one of the base (about **5% to 10%**).
- Keep the name of the pump pressing and open the corresponding test outlet gently so that the fluid drains off. Let flow until clean material drains off.
- We advice you to open the solvent pump between each priming to flush the test outlet.
- **Important : before exiting that page, you must end with the solvent pumps to flush properly the test outlets.**

➔ **The CATALYST pressure must always be higher from 5 to 10% than the BASE pressure.**

9. APPLICATION PROGRAMMING

To modify the parameters of the CYCLOMIX™ MULTI, depress «Cyclomix parameter» in the page of the main menu.

The following view is displayed :

PARAMETER

Modification of the language	▲
Color and data number	
Fluid hose volume	▼
Ratio precision	
Name of the programs	Exit

1/3

To shift from a parameter to another, use the arrows ▲ or ▼ .

Select the parameter to alter.

To quit the menu PARAMETER, enter «END».

The parameters are pre-programmed in the factory. They must be modified (by an authorized person) to adapt themselves to the fluids. A "LOGIN" window will be displayed if you depress the parameter if necessary.

The LOGIN key enables to introduce yourself and give access rights via a password to make the modifications possible.

Password by default : Maintenance : A

Person in charge : C

User : Ø

(Letter in capital)

When there are parameters with various datas, select the data to alter (depress it).

To alter a digital value, select the keyboard.

Example :

Ratio precision

ratio fault %: 3.00

Enter the ratio Fault in % (with machine stop)


Fault #: 3

Enter the number of successive ratio faults before stopping

Exit

Min: 0

Max:65535



Depress here to change the value.
A keyboard is displayed.

Depress the keyboard icon to alter the selected value using **ENT**.

■ LIST OF THE PARAMETERS

Parameters	Description	Factory adjustment	Your adjustments	Your adjustments	Access
------------	-------------	--------------------	------------------	------------------	--------

Language	French, English, German, Italian, Spanish	French			C / A
Number of colors and catalysts	1 catalyst / 1 color / 3 colors / 5 colors / 7 colors 2 catalysts / 3 colors / 5 colors 3 catalysts / 3 colors	1 catalyst / 1 color			C / A
Material hose volume	Material hose volume : xxxxx c.c.	150 c.c			C / A
Ratio fault	Ratio % : I xx % ◀ Nb of faults : I xxx ▶	5 % 3			C / A
Name of the programs	This parameter enables to give a name to the programs.	1 2 ↓ 15			All
Solvent flow fault	Base max time I xxxx s Cata max time I xxxx s	300 s 300 s			C / A
Flushing of the test outlets	Value xxxx s	60 s			
Atomizing air	With air / Without air	With air			C / A
Auto-wash	Use of the AUTO-WASH AUTO-WASH OFF	AUTO-WASH OFF			C / A
Automatic	AUTOMATIC use AUTOMATIC OFF	AUTOMATIC OFF			C / A
Flow limiting	Max flow limiting : I xxxxx ◀ Mini flow limiting : I xxxxx ▶	32 767 0			C / A
Panel view configuration	CPU V : ## Set up	Program version Display system			All
Servicing	Flowmeters Outlets				A
Flowmeter Servicing	CATA Flowmeter : I xxxxx ◀ BASE Flowmeter : I xxxxx ▶	0 0			A
Servicing-Outlets	Enables to set up all the automaton outlets	All outlets OFF			A
New password	4 access levels : SAMES KREMLIN , person in charge, maintenance, user	User C / A			All
SAMES KREMLIN	Gun blowing time before dosing Meter time blocked in manual Meter time blocked in auto	300 (= 3 s) 50 (= 0,5 s)			KREM



Access : Ø ⇒ User
Maintenance

C ⇒ Departmental head - Person in charge

A ⇒

■ EXPLANATION OF THE PARAMETERS

<p>*<u>Language</u> :</p>	<p style="text-align: center;">LANGUAGE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">Français</td></tr> <tr style="background-color: #cccccc;"><td style="text-align: center;">English</td></tr> <tr><td style="text-align: center;">Deutsch</td></tr> <tr><td style="text-align: center;">Italiano</td></tr> <tr><td style="text-align: center;">Espanol</td></tr> <tr><td style="text-align: center;">中的</td></tr> <tr><td style="text-align: center;">Polonais</td></tr> <tr><td style="text-align: center;">Finlandais</td></tr> </table> <p style="text-align: right; margin-top: 10px;"><input type="button" value="Exit"/></p>	Français	English	Deutsch	Italiano	Espanol	中的	Polonais	Finlandais	<p>Selection of the CYCLOMIX™ MULTI language</p>
Français										
English										
Deutsch										
Italiano										
Espanol										
中的										
Polonais										
Finlandais										
<p>*<u>Number of color and catalyst</u> :</p>	<p style="text-align: center;">Machine parameter</p> <p style="text-align: center;">2 catalysts and 3 colors</p> <p style="text-align: center; font-size: small;">Choose the type of machine.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="text-align: center;">1 catalyst / 1 color</td></tr> <tr><td style="text-align: center;">1 catalyst / 3 colors</td></tr> <tr><td style="text-align: center;">1 catalyst / 5 colors</td></tr> <tr><td style="text-align: center;">1 catalyst / 7 colors</td></tr> <tr style="background-color: #cccccc;"><td style="text-align: center;">2 catalysts / 3 colors</td></tr> <tr><td style="text-align: center;">2 catalysts / 5 colors</td></tr> <tr><td style="text-align: center;">3 catalyst / 3 colors</td></tr> </table> <p style="text-align: right; margin-top: 10px;"><input type="button" value="Exit"/></p>	1 catalyst / 1 color	1 catalyst / 3 colors	1 catalyst / 5 colors	1 catalyst / 7 colors	2 catalysts / 3 colors	2 catalysts / 5 colors	3 catalyst / 3 colors	<p>That parameter sets up the machine with the right number of color changer for base and catalyst.</p>	
1 catalyst / 1 color										
1 catalyst / 3 colors										
1 catalyst / 5 colors										
1 catalyst / 7 colors										
2 catalysts / 3 colors										
2 catalysts / 5 colors										
3 catalyst / 3 colors										
<p>*<u>Material hose volume</u> :</p>	<p style="text-align: center;">Fluid hose volume</p> <p>Hose volume: 120 cc</p> <p>Input the hose volume above between the machine and the gun for the regeneration</p> <p style="text-align: right; margin-top: 10px;"><input type="button" value="Exit"/></p>	<p>It is the volume of hose mounted between the machine outlet and the gun. That volume value will be stored and called if there is a regeneration of material (the machine will integrate its internal volume).</p> <p><i>Trick : During the first calibration, program the value 30 in order not to consume too much material.</i></p>								
<p>*<u>Ratio fault</u> :</p>	<p style="text-align: center;">Ratio precision</p> <p>ratio fault %: 3.00</p> <p style="font-size: small;">Enter the ratio Fault in % (with machine stop)</p> <p>Fault #: 3</p> <p style="font-size: small;">Enter the number of successive ratio Faults before stopping</p> <p style="text-align: right; margin-top: 10px;"><input type="button" value="Exit"/></p>	<p><u>Ratio fault (%)</u> : enter the ratio fault in % (1-100%)</p> <p><u>Fault nb</u> : enter the number of successive ratio faults before stopping the CYCLOMIX™ MULTI.</p>								

<p><u>*Autowash :</u></p>	<p style="text-align: center;">Auto-wash</p> <hr/> <p style="text-align: center;">Auto-wash off</p> <p>Touch screen to modify the parameter</p> <p>Inactive time, only with auto-wash (s):</p> <p style="text-align: center;">30</p> <p style="text-align: right;">Exit</p>	<p>Use of the auto-wash.</p> <p>Time of inactivity : it is the maximum authorized time during which the painter does not spray in PRODUCTION mode.</p> <p> That parameter is essential for the spraying without air with AUTO WASH.</p>
<p><u>*Automatic :</u></p>	<p style="text-align: center;">Automatic use</p> <hr/> <p style="text-align: center;">Automatic OFF</p> <p>Press the screen to modify the parameter</p> <p style="text-align: right;">Exit</p>	<p>Use of a robot or of another automaton to pilot the CYCLOMIX™ MULTI.</p>
<p><u>*Flow limit :</u></p>	<p style="text-align: center;">Flow limit</p> <p>Maximum flow 32000 cc</p> <p>Enter the maximum Flow in cc per automatic gun trigger.</p> <p>Minimum flow 0 cc</p> <p>Enter the minimum Flow in cc per automatic gun trigger.</p> <p style="text-align: right;">Exit</p>	<p> That parameter is only used in automatic mode.</p> <p><u>Maximum limit</u> : maximum value of the quantity of sprayed materials by gun opening.</p> <p><u>Minimum limit</u> : minimum value of the quantity of sprayed materials by gun opening.</p>

<p>*Panel view :</p>		<p>Version : That page enables to check the program version of the CYCLOMIX™ MULTI.</p> <p>« SET UP » : when pressing the 2 keys simultaneously, that page enables to enter in the display system menu (modification of the hour, the date...).</p> <p>To come back, depress « EXECUTION MODE »</p>																																																		
<p>*Servicing :</p>	<div style="border: 1px solid black; padding: 5px;"> <p>Catalyst flowmeter OFF </p> <p>Base flowmeter OFF </p> <p style="text-align: center;">Press A or B to view the pulses of the flowmeters.</p> <p style="text-align: center;"> Clear Exit </p> </div>	<div style="border: 1px solid black; padding: 5px;"> <table style="width: 100%; text-align: center; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px;">00 OFF</td> <td style="border: 1px solid black; padding: 2px;">01 OFF</td> <td style="border: 1px solid black; padding: 2px;">02 OFF</td> <td style="border: 1px solid black; padding: 2px;">03 OFF</td> <td style="border: 1px solid black; padding: 2px;">04 OFF</td> <td style="border: 1px solid black; padding: 2px;">05 OFF</td> <td style="border: 1px solid black; padding: 2px;">06 OFF</td> <td style="border: 1px solid black; padding: 2px;">07 OFF</td> </tr> <tr> <td>SA</td> <td>B2</td> <td>SB2</td> <td>VP4</td> <td>E</td> <td>F</td> <td>G</td> <td>VP5</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">08 OFF</td> <td style="border: 1px solid black; padding: 2px;">09 OFF</td> <td style="border: 1px solid black; padding: 2px;">010 OFF</td> <td style="border: 1px solid black; padding: 2px;">011 OFF</td> <td style="border: 1px solid black; padding: 2px;">012 OFF</td> <td style="border: 1px solid black; padding: 2px;">013 OFF</td> <td style="border: 1px solid black; padding: 2px;">014 OFF</td> <td style="border: 1px solid black; padding: 2px;">015 OFF</td> </tr> <tr> <td>VP6</td> <td>AIR</td> <td>A1</td> <td>A2</td> <td>A3</td> <td></td> <td></td> <td>B1</td> </tr> <tr> <td style="border: 1px solid black; padding: 2px;">016 OFF</td> <td style="border: 1px solid black; padding: 2px;">017 OFF</td> <td colspan="5"></td> <td colspan="2"></td> </tr> <tr> <td>SB1</td> <td></td> <td colspan="5"></td> <td colspan="2"></td> </tr> </table> <p style="text-align: right; margin-top: 10px;"> Exit </p> </div>	00 OFF	01 OFF	02 OFF	03 OFF	04 OFF	05 OFF	06 OFF	07 OFF	SA	B2	SB2	VP4	E	F	G	VP5	08 OFF	09 OFF	010 OFF	011 OFF	012 OFF	013 OFF	014 OFF	015 OFF	VP6	AIR	A1	A2	A3			B1	016 OFF	017 OFF								SB1								
00 OFF	01 OFF	02 OFF	03 OFF	04 OFF	05 OFF	06 OFF	07 OFF																																													
SA	B2	SB2	VP4	E	F	G	VP5																																													
08 OFF	09 OFF	010 OFF	011 OFF	012 OFF	013 OFF	014 OFF	015 OFF																																													
VP6	AIR	A1	A2	A3			B1																																													
016 OFF	017 OFF																																																			
SB1																																																				

⚠ The test outlets must be open.

Flowmeters : that page enables to check flowmeter signals when solvent circuits are open.

Outlets (from S0 to S17) : that page enables to set up manually all the outputs.

⚠ When exiting these pages, all the outputs and flowmeters must be off.

<p>*SAMES KREMLIN :</p>	<div style="border: 1px solid black; padding: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 5px;"> Atz time in automatic: 1/100s 50 ms </td> <td style="border: 1px solid black; padding: 5px;"> Solvent cc 250 P </td> </tr> <tr> <td style="border: 1px solid black; padding: 5px;"> Atz time in manual:1/100s 10000 ms </td> <td style="border: 1px solid black; padding: 5px;"> Cata cc 200 P </td> </tr> <tr> <td colspan="2" style="border: 1px solid black; padding: 5px;"> Base cc 200 P </td> </tr> <tr> <td colspan="2" style="border: 1px solid black; padding: 5px;"> time delay for blocked flowmeter priming volume between flowmeters and CTM </td> </tr> <tr> <td colspan="2" style="text-align: right; border: 1px solid black; padding: 5px;"> Exit </td> </tr> </table> </div>	Atz time in automatic: 1/100s 50 ms	Solvent cc 250 P	Atz time in manual:1/100s 10000 ms	Cata cc 200 P	Base cc 200 P		time delay for blocked flowmeter priming volume between flowmeters and CTM		Exit		<p>Air blowing time to the gun before material spraying (no check of the meters during that time) (in millisecond).</p> <p>Please get in touch with SAMES KREMLIN technician for the modification of the other values.</p>
Atz time in automatic: 1/100s 50 ms	Solvent cc 250 P											
Atz time in manual:1/100s 10000 ms	Cata cc 200 P											
Base cc 200 P												
time delay for blocked flowmeter priming volume between flowmeters and CTM												
Exit												

■ **PARAMETERS OF THE PROGRAMS**

Depress "Parameters of the programs" in the main menu, the following view is displayed :

Programs parameter		
JAUNE 007124	A1/B1	<div style="display: flex; flex-direction: column; align-items: center;"> ▲ ▼ </div>
JJKD	A2/B1	
EL998DEEKLA	A3/B1	
IJCB678	A4/B1	
KABCIPQ7	A5/B1	
123451234568	A6/B1	
1/3		Exit

Choose the program to alter. That menu enables to modify the parameters of each program. You can also calibrate the flowmeters according to the fluids and view or print the consumptions of the fluids.

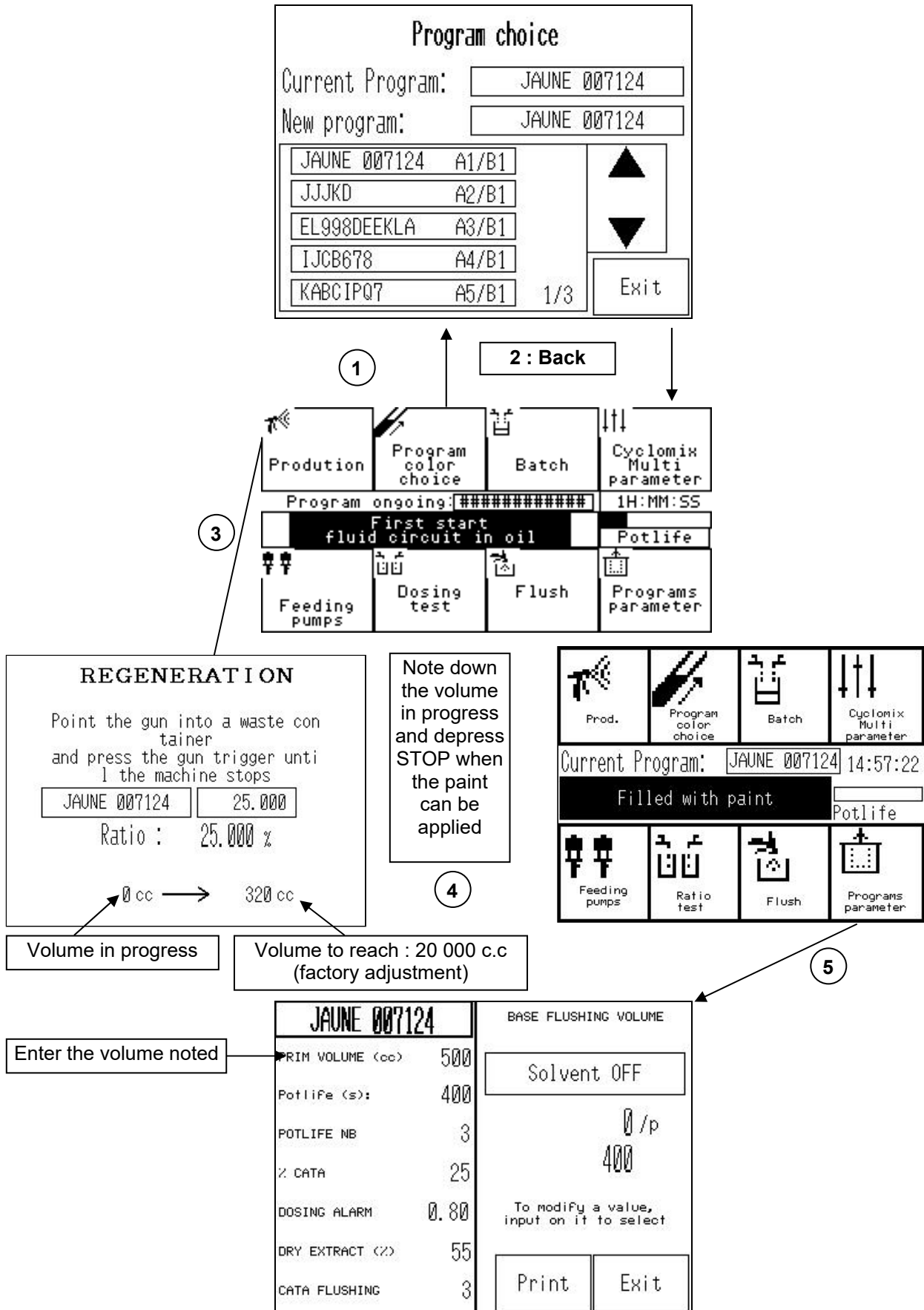
Each page of parameter will be as follows :

Name of
the
program

JAUNE 007124	BASE FLUSHING VOLUME
PRIM VOLUME (cc) 500	Solvent OFF
Potlife (s): 400	0 /p
POTLIFE NB 3	400 ← Value stored (pulse number)
% DATA 25	To modify a value, input on it to select
DOSING ALARM 0.80	Print Exit
DRY EXTRACT (Z) 55	
CATA FLUSHING 3	

■ SET UP THE PRIMING

Once the parameters (machine and program) set up, you have to set up properly the volume of priming for each program. It is important to carry out as follows :



■ BASE FLUSHING PARAMETER

JAUNE 007124		BASE FLUSHING VOLUME	
PRIM VOLUME (cc)	500	Solvent OFF	
PotLife (s):	400	0 /p	
POTLIFE NB	3	400	← Value to enter
% DATA	25	To modify a value, input on it to select	
DOSING ALARM	0.80	Print	Exit
DRY EXTRACT (%)	55		
CATA FLUSHING	3		

When the page of the program parameter is displayed and that you have carried out a flushing, it is important to set up the base flushing volume.

Depress «Solvent OFF» and open the gun. The machine opens the solvent circuit. When the solvent drains off clean, depress "Solvent ON" : the machine closes the solvent circuit.

Note down the "xxxxx/p" value in the frame below.

You can also enter that value via the selection of the frame.

After that stage, you can pass into "PRODUCTION" mode.

Before passing into production mode, it is important to calibrate the BASE FLUSHING parameters.

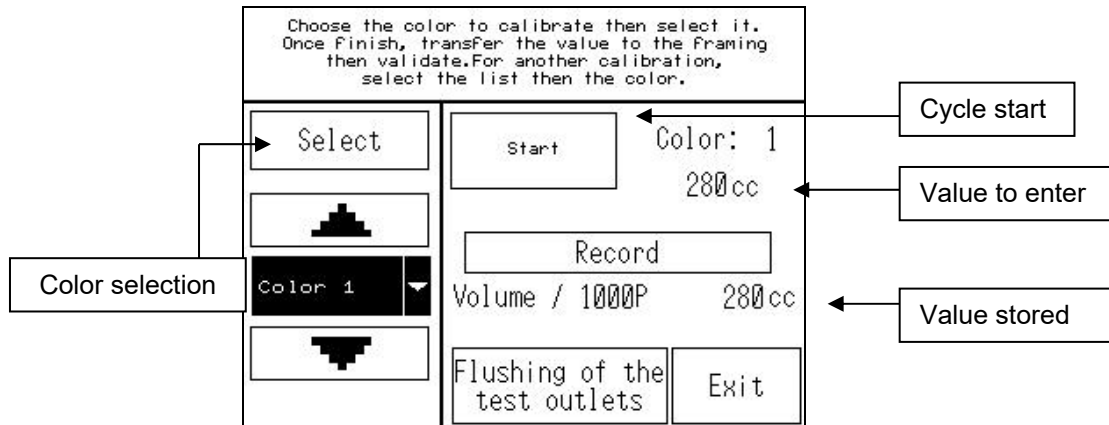


Never quit that page until reading
« BASE FLUSHING VOLUME »: OFF.

■ BASE AND CATALYST CALIBRATION PARAMETER

In the menu "Programs' parameter", the fluids' calibration parameters are available.

- CALIBRATION OF THE COLORS :



To select the color, please use the arrows (Up / Down).

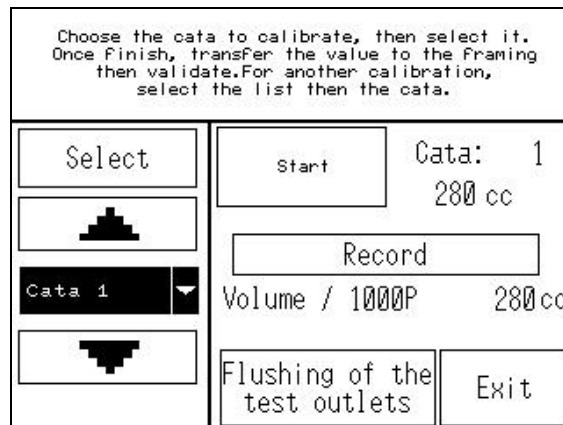
The calibration cycle enables the machine to calculate the exact volumes of fluids' consumptions as well as the volumes during the mixing, batch tests or during the production.

When the cycle begins, the machine counts 1000 pulses of the base flowmeter with the color selected. The fluid flows via the test outlet TA.

Once the machine stopped, transfer the volume noted down in the frame "Value to enter" then depress "Store".

To calibrate other color, it is necessary to flush the test outlet : depress "test outlet flushing". The machine opens the base solvent circuit and flushes the test outlet. When the fluid is clean, depress for the second time to make the machine close the solvent circuit.

- CALIBRATION OF THE CATALYSTS :



Same principle than for colors except that the fluids flow from the test outlet TB.

■ CONSUMPTION OF THE FLUIDS

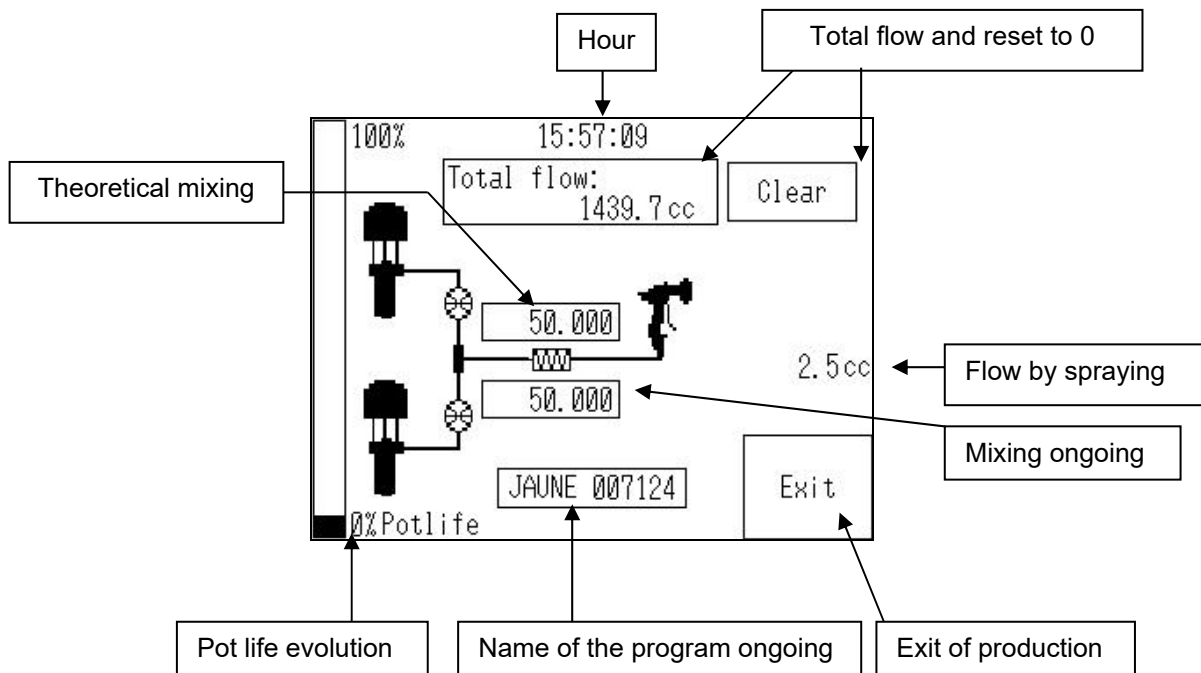
Fluid consumptions in c.c 24/01/2013				V.O.C consumptions in c.c			
A1 :	2045	B1 :	918	A1:	1125	A5:	0
A2 :	0	SB1 :	960	A2:	0	A6:	0
A3 :	0	B2 :	0	A3:	0	A7:	0
A4 :	0	SB2 :	0	A4:	0		
A5 :	0	B3 :	0				
A6 :	0	SB3 :	0				
A7 :	0	SA :	84				
Clear	Print	Page of the V.O.C	Exit	Print	Exit		

These pages enable to follow through the consumptions of each material. You can save a report of the consumptions and of the VOC connecting an USB key to the port at the front part of the display unit.

You can reset to 0 the consumptions depressing "CLEAR", the VOC will be reset to 0.

10. MANUAL PRODUCTION

Once carried out a priming, depress the "Go to production" key, the following view is displayed :



11. CHANGE OF PROGRAM

Once carried out a production with a program, to change a program :

- exit from production, if you are in production mode,
- select "Choice of the program" in the main menu.

Program choice	
Current Program:	JAUNE 007124
New program:	JAUNE 007124
JAUNE 007124 A1/B1	▲ ▼
JJKD A2/B1	
EL998DEEKLA A3/B1	
IJCB678 A4/B1	
KABCIPQ7 A5/B1	
1/3	Exit

Use the arrows to go to the next pages. Select your program then depress "Back" to exit.

If the new program has the same catalyst than the program in progress , the machine will carry out a production flushing to flush only the base side.

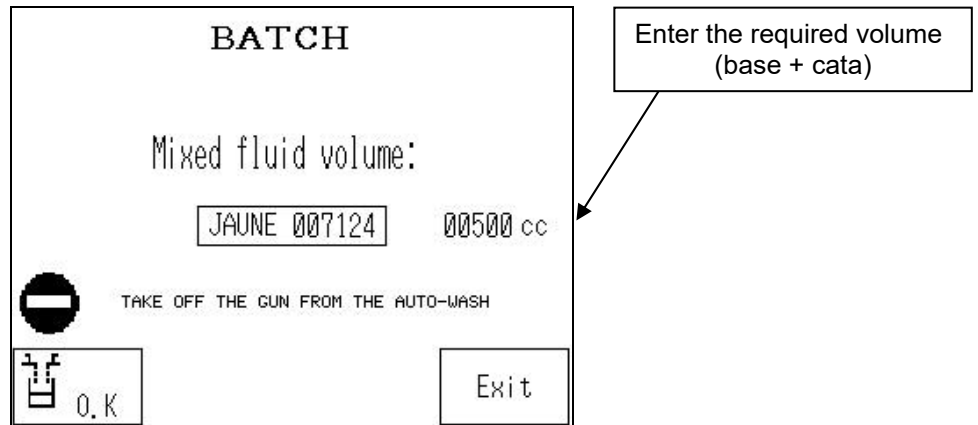
On the other hand, if the new program has a catalyst different from the one of the program in progress, the machine will carry out a week end flushing to prevent fluids that are not compatible between them from crossing.

Once carried out the flushing, the machine comes back in the main menu.
If you ask for "go to production", a priming starts up.



Each time you start the machine, you must choose the program.

12. BATCH



That function is used in case of rectification to carry out.

In that mode, the CYCLOMIX™ MULTI will deliver, via the test outlets TA & TB, the required fluid volume at the ratio that has been programmed for the program in progress.

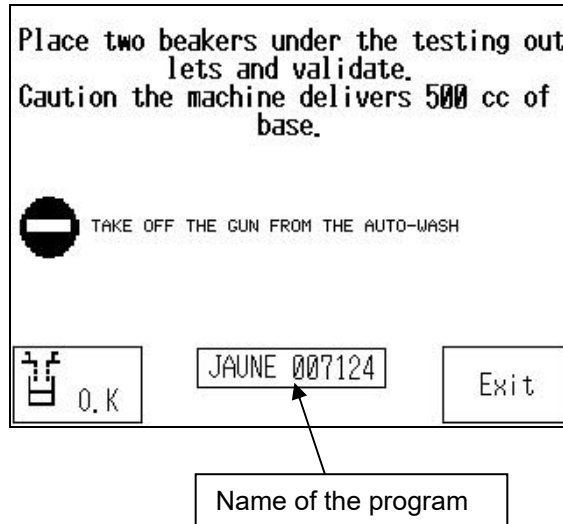
- ➔ Wear protective glasses to protect the operator from possible discharges during the handling of the CYCLOMIX™ MULTI machine test outlets.
- ➔ During that stage, the gun must be shut off.



Caution : if the installation is in "AUTOWASH" configuration, you must remove the gun from the AUTOWASH support.

That stage is followed by a flushing of the test outlets. To start up again in production, you must carry out a gun priming.

13. MIXING TEST



That function is used to check the ratio of the CYCLOMIX™ MULTI.

In that mode, the CYCLOMIX™ MULTI will deliver, via the test outlets TA & TB, the mixing ratio over the base volume of 500cc for the program in progress.

- **Wear protective glasses to protect the operator from possible discharges during the handling of the CYCLOMIX™ MULTI machine test outlets.**
- **During that stage, the gun must be shut off.**



Caution : if the installation is in "AUTOWASH" configuration, you must remove the gun from the AUTOWASH support.

That stage is followed by a flushing of the test outlets. To start up again in production, you must carry out a gun priming.

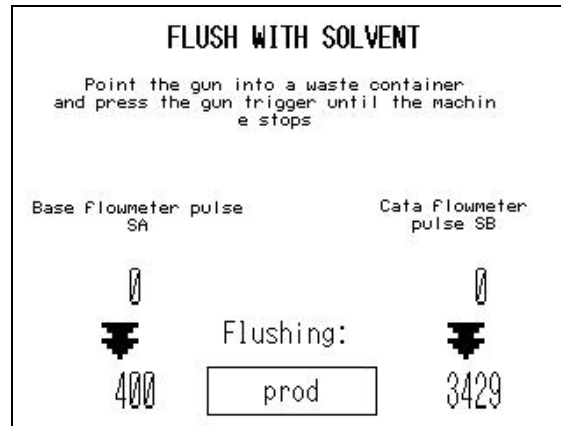
14. WEEKEND FLUSHING OR PRODUCTION FLUSHING

During the stopping of the machine, you must carry out a flushing.

Input "Flush the cyclomix" of the main menu. Select the kind of flushing (production flushing / weekend flushing), then point the gun into a receptacle and press the gun trigger until the machine stops.

Nota : During the flushing, you can take off the gun aircap to increase the solvent output (max.7 l/min). Make sure you check the pressure and decrease it if it is high.

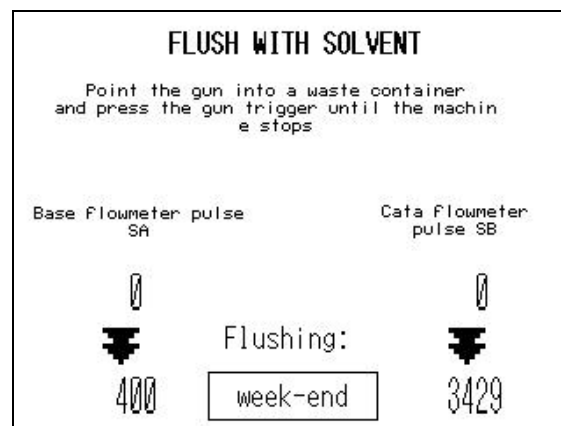
**For a
PRODUCTIO
N
flushing :**



The CYCLOMIX™ MULTI will flush all the BASE circuit from the color changer to the gun (meter, automatic valves, mixer, connecting hose) with the volume of solvent base programmed in the BASE flushing parameter.

The CATALYST circuit is not flushed. After that flushing, the CYCLOMIX™ MULTI starts up again in the main menu. Then, you can start in production with another program which has the same catalyst. If you select a program with a different catalyst, the machine will carry out a "week- end" flushing then will come back in the main menu.

**For a
weekend
flushing :**



The machine carries out a PRODUCTION flushing, then flushes the CATALYST circuit : meter, automatic valves, mixer, hose and gun with catalyst solvent. You can then switch off the machine or start in production with any program.

Leave the machine full of solvent. Shut off the electric supply (switch on the right side) and the air supply.

In automatic mode, the robot bay controls the kind of flushing and the stopping of the CYCLOMIX™ MULTI.

If a power outage occurs, you can carry out a flushing of the machine by pressing the black-press button "EMERGENCY FLUSHING" located on the part (pneumatic control, index "K"). Only the base side of the machine will be flushed with its solvent.

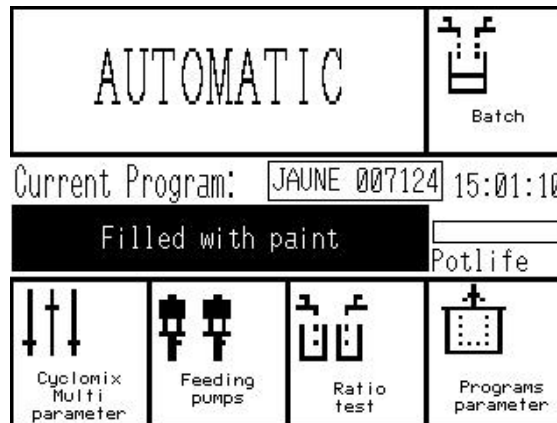
15. OTHER MENUS

They are selected from the machine parameters' programming.

If the user has chosen an other menu than the standard menu, as AUTOMATIC or AUTO-WASH menu, a different menu will be displayed on the screen during the switching on of the machine.

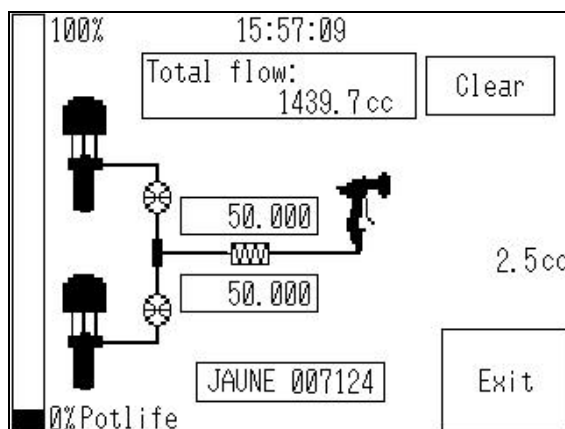
■ AUTOMATIC MENU

For the piloting of the machine via a robot :



The START UP, PROGRAM CHOICE and FLUSHING functions are controlled by the bay of the robot. The interface unit is carried out via the terminals inside the box (see electric diagram - folio 4).

When the robot gives the order to go to production, the following page is displayed :



ROBOT INTERFACE UNIT

Automaton inlets and outlets - CYCLOMIX™ MULTI	
IN 3	Color choice validation
IN 6	Go to production
IN 7	Bit 4 for program choice
IN 8	Start-up weekend flushing
IN 9	Start-up production flushing
IN 11	Bit 3 for program
IN 12	Bit 2 for program choice
IN 13	Bit 1 for program choice
Outlets' coding of the CYCLOMIX™ MULTI state	
OUT 4 = 1	Fault (Red led)
OUT 5 = 1	Operating (Orange led)
OUT 6 = 1	Production (Green led)
OUT 5 + OUT 6 = 1	Waiting
OUT 4 + OUT 5 + OUT 6 = 1	Production and flow alarm
OUT 4 + OUT 5 + OUT 6 = 0	Programming
OUT 4 + OUT 5 = 1	Mixing alarm

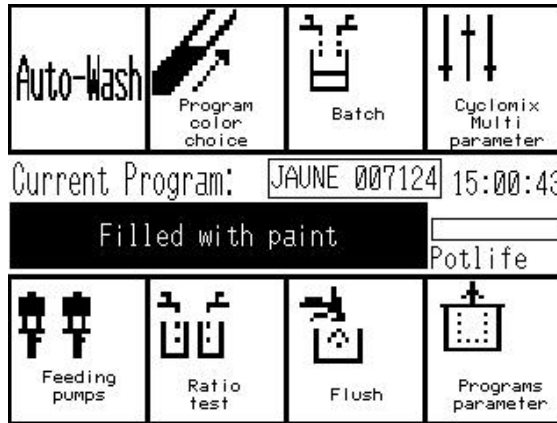
Inlets' coding for the program choice				
bit 4 IN7 of the automaton	bit 3 IN11 of the automaton	bit 2 IN12 of the automaton	bit 1 IN13 of the automaton	
0	0	0	0	
0	0	0	1	program 1
0	0	1	0	program 2
0	0	1	1	program 3
0	1	0	0	program 4
0	1	0	1	program 5
0	1	1	0	program 6
0	1	1	1	program 7
1	0	0	0	program 8
1	0	0	1	program 9
1	0	1	0	program 10
1	0	1	1	program 11
1	1	0	0	program 12
1	1	0	1	program 13
1	1	1	0	program 14
1	1	1	1	program 15

TIMEMETER CHART

I/O automaton of the Cyclomix multi	waitin g	program choice 5	flushing	waitin g	priming	prodspraying	prod & waitin g	program choice 2	flushing	waitin g	priming	prodspraying	prod & waitin g	for a Week- end flushing	for a prod flushing fault
IN 13	x	1	x	x	x	x	x	0	x	x	x	x	x	x	x
IN 12	x	0	x	x	x	x	x	1	x	x	x	x	x	x	x
IN 11	x	1	x	x	x	x	x	0	x	x	x	x	x	x	x
IN 7	x	0	x	x	x	x	x	0	x	x	x	x	x	x	x
IN 3	x	1	0	0	0	0	0	1	0	0	0	0	0	0	0
IN 6	0	0	0	0	1	1	0	0	0	0	1	1	0	0	0
IN 8	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
IN 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IN 10	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
out 6	1	1	0	1	1	1	1	1	0	1	1	1	1	0	0
out 5	1	1	1	1	1	0	1	1	1	1	1	0	0	1	0
out 4	0	0	0	0	0	0	1/0	0	0	0	0	1/0	0	0	1
out 7	0	0	1	0	1	0	0	0	1	0	1	0	0	1	0

x état sans conséquence
 1/0 état obligatoire pour les entrées et résultant pour les sorties

■ AUTO-WASH MENU



The auto wash located on the booth has a "PRODUCTION : O - I" selector and a system to hang up the gun.

During a stoppage :

Turn the PRODUCTION selector on "O".

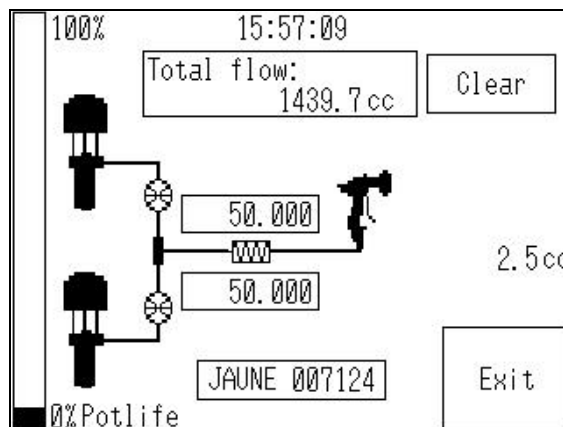
Depressurize the hose by triggering the gun.

Hand up the gun on the support (trigger open).

When the time corresponding to the pot-life passes or during a flush or a priming, the fluid will flow.

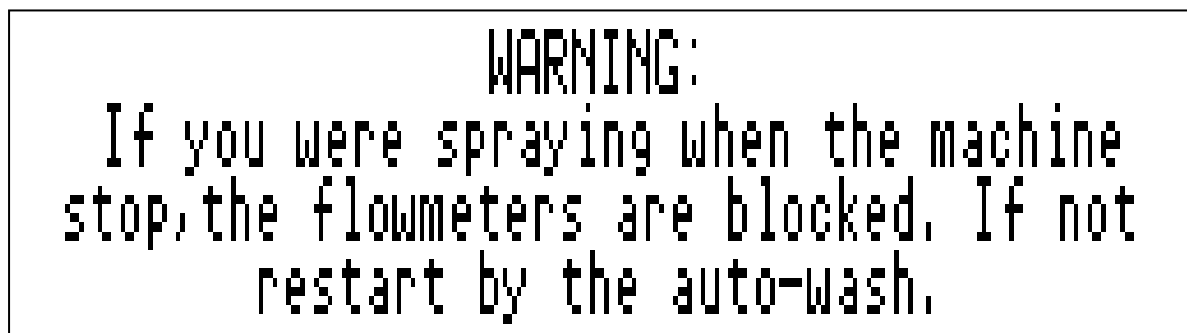
To start, the user gets back his gun and turns the PRODUCTION selector on "I".

PRODUCTION WITH AUTO-WASH



SAFETY DEVICE FOR THE SPRAYING WITHOUT AIR WITH AUTO WASH

If the time of inactivity of the machine is reached, the following page is displayed :



The temporization is reset to 0 at each flowmeter pulse.

If the temporization has gone by while the painter is spraying, the BASE flowmeter is blocked.

Otherwise, to start again in production, turn the peummatic knob of the AUTO WASH on 0, then on I.

16. MAINTENANCE

**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.**

**Never leave the mixed material in the machine.
Properly adjust the Pot life parameter to avoid hardening. Carry out a flushing when the work is over.**

Change regularly the mixer assembly to avoid a loss of pressure into the circuit of the mixed fluid.
Clean the screens of the filters and change them if necessary.

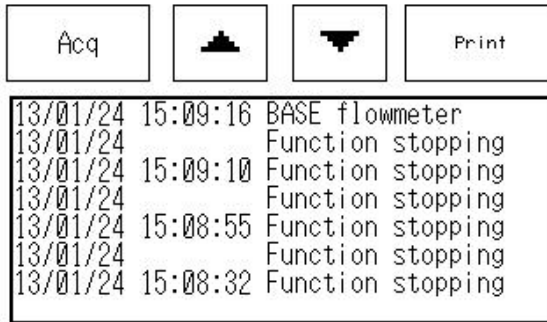
For any intervention on the machine :

- Flush the circuits,
- Shut off the compressed air,
- Depressurize the hoses by triggering the gun,
- Shut off the electric supply.

17. TROUBLESHOOTING

If a problem occurs during the operating of the machine, some alarm or fault messages will be displayed on the screen of the machine.

ALARM



The list of the alarms is displayed on the screen with the day and the hour.

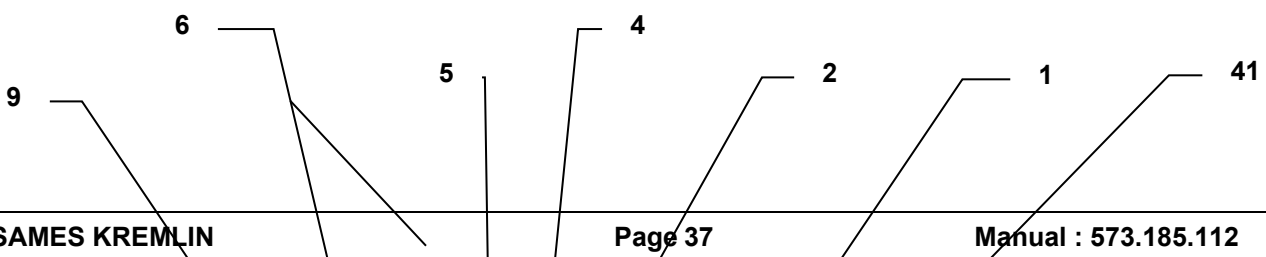
Input "Acquit" to acquit each alarm.

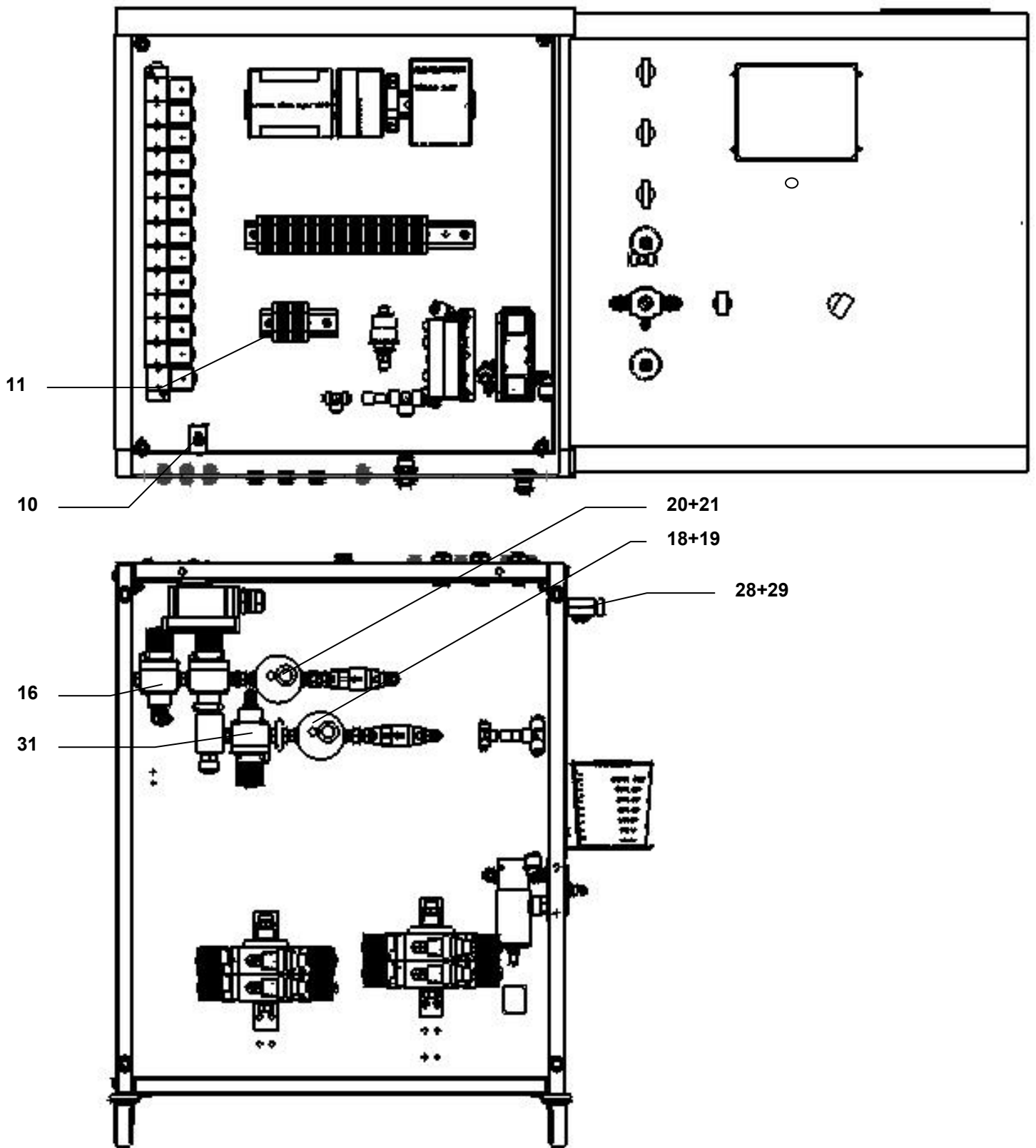
You can save the alarms.

PROBLEMS	CAUSES	SOLUTIONS
CATA flowmeter Or BASE flowmeter	Flowmeter blocked or pressures incorrectly balanced	Check the fluid circuit (pump, valve) Clean or change flowmeters
	Time between air opening and fluid opening upper than 3s	Trigger the gun quickler
Mixing ratio	Flow improperly adjusted or pressures incorrectly balanced	
Function stopping	Yellow push-button engaged	Unlock
Injection piloted valve	VP6 valve leaking	Remove VP6 and check the correct operating. Change the valve if necessary.

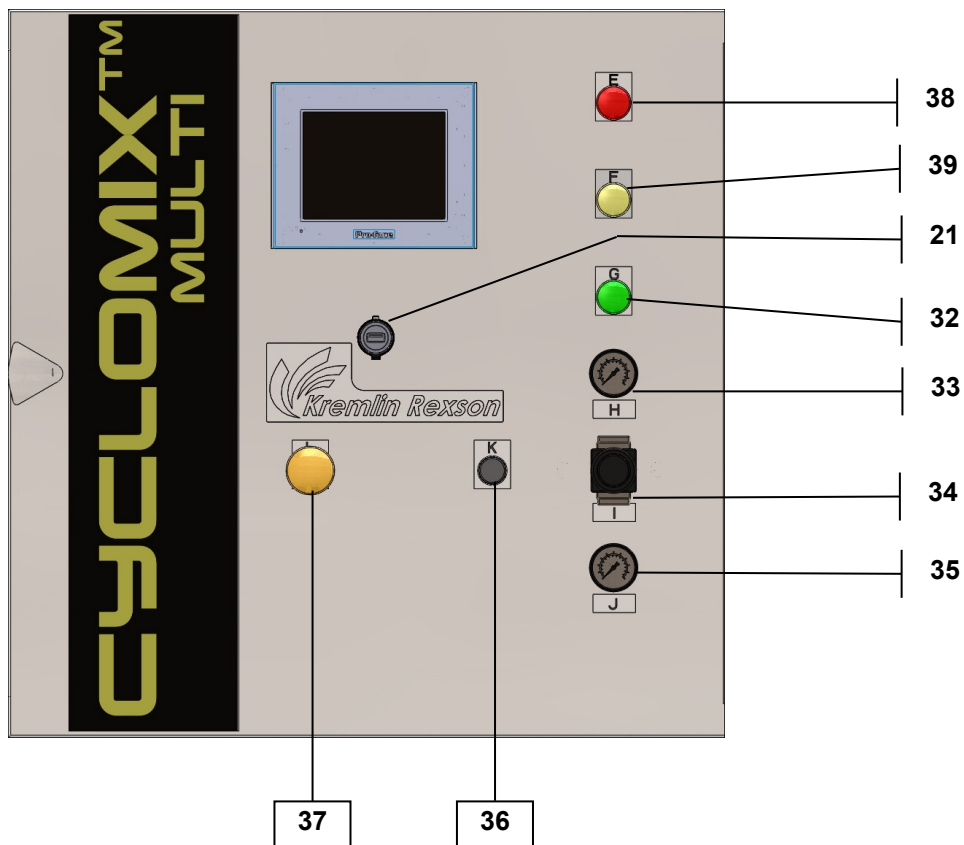
To check the operating of the machine when using it, you can call up the SERVICING parameter and watch the flow of the flowmeters and the state of the automaton outlets (access authorized only to the MAINTENANCE)

S0	EV 1	Base SOLVENT piloted valve	The 3 outlets S4, S5 S6 enable a coding of the faults (refer to § 11 - Indications given by the LED)
S1	EV 2	CATA 2 or BASE 6 piloted valve	
S2	EV 3	CATA 2 or BASE 7 SOLVENT piloted valve	
S3	EV 4	TEST CATA TEST piloted valve	
S4	Red LED	LED + robot info	
S5	Orange LED	LED + robot info	
S6	Green LED	LED + robot info	
S7	EV 5	BASE TEST piloted valve	
S8	EV 6	INJECTION piloted valve	
S9	EV 7	SPRAYING AIR piloted valve	
S10	EV8	BASE 1	
S11	EV9	BASE 2	
S12	EV10	BASE 3	
S13	EV11	BASE 4 or SOLVENT CATA 3	
S14	EV12	BASE 5 or CATA 3	
S15	EV13	CATA 1	
S16	EV14	SOLVENT CATA 1	
S17	Terminal 22	Gun opening control	





Door open at 180° C / 356° F



ELECTRIC

FAULTS	CHECKS
The machine does not switch on	Check the mains supply wiring at the isolating switch level (42). Check if a green diode is switched on the 24V supply (4) No : change the supply (4)
When switching on, no LED is operating (32, 38, 39)	Check the operating via the SERVICING parameter. If they do not switch on : change the concerned LED.
The display unit (40) does not switch on	Check the electric wiring (bad contact or other) No : change the display unit
When you push on the push-button "stopping of function" (37), nothing occurs	Check the proper operating of the push-button. Check that the IN3 diode of the automaton is switched on.

FLUID

FAULTS	CHECKS
During the priming, no fluid flows out from the gun.	Check if the machine is supplied with air (reading of the pressure - 35) (minimum 4 bar / 58 psi) Check that the pumps are pressurized.
During the priming, the measure displayed does not reach the instruction.	Check the pressure of the catalyst and of the base.
When we are in the page of the main menu, if fluid flows when the gun is open, there is a valve leak.	Detection of the valve : Open the box, watch automaton (6), open the gun and watch if IN0 or IN1 flashes on.
If IN1 flashes on : valve leak - BASE side	Flush the machine with solvent (weekend flushing) Remove the valves.
If IN0 flashes on : valve leak - CATA side	Flush the machine with solvent (weekend flushing) Remove the valves.
During the production, there is a leak at the test outlets level.	If the fluid flows from the test outlet TA (28) : change the valve (31). If the fluid flows from the test outlet TB (29) : change the valve (16).
One of the meters does not count	Open the box, operate the gun and watch if IN0 or IN1 (automaton inlets) flashes on (6).
If IN1 does not flash on : the BASE flowmeter is in fault (18 & 19)	Test if it is the sensor or the mechanical part : - Unscrew the sensor. Bring the tip of a mechanical part closer and move it away. If the sensor works properly, the IN1 diode must flash on : yes, change the mechanical part; no, change the sensor. - Check the ZENER barrier wiring.
If IN0 does not flash on : the CATA flowmeter is in fault (20 & 21)	Test if it is the sensor or the mechanical part. - Unscrew the sensor. Bring the tip of a mechanical part closer then away. If the sensor works properly, the IN0 must flash on: yes, change the mechanical part; no, change the sensor. - Check the ZENER barrier wiring.
There is a problem of flow at the gun outlet.	Change the mixer.
The fluid valves are not working.	Check the electrovalves and actuate the manual opening push button to check if there are supplied with air. Check if when the automaton pilots an outlet, the associated electrovalve is switched over (9).
In production, the machine indicates : cata flowmeter OUT OF ORDER	Remove it and check it.
In production, the machine indicates : base flowmeter OUT OF ORDER	Remove it and check it.
In production, the machine indicates : base flowmeter OUT OF ORDER, but the base meter is not blocked	Check the flow switch (IN 5)
The pot life is over but the machine does not flush.	Check the flow switch (IN 5)

AUTOMATIC

FAULTS	CHECKS
You cannot switch to production or to priming or to flushing.	Check the automatic parameter. Check the electric wiring.

AUTO-WASH

FAULTS	CHECKS
You cannot switch to production with the auto-wash	Check the auto-wash parameter. Check if air is coming on IN at the outlet plate level. Check that the INX diode of the automaton lights on when you push the button. If no, check the air pressure or change the pressure switch (2)

AUTOMATON

FAULTS	CHECKS
The automaton is in fault mode (fault diode on) or is not in mode run (run diode off)	Call KREMLIN.

PNEUMATIC

FAULTS	CHECKS
The gauge (35) is blocked to 0 bar / psi.	Check the general pressure. Change it if necessary.
The gauge (33) is blocked to 0 bar / psi.	Check the general pressure and screw the regulator (34). Check that you are in production Check the spraying air parameter Check the distributor (41) Check the piloting electrovalve via its manual control (9)
In production, the total is no longer working.	Check the flowmeter (1). When it's engaging, the IN5 diode of the automaton (6) must be switched on.
During a TEST or BATCH program, nothing flows from the test outlets TA or TB (29 & 28)	Check if the test valves are open. Check that the hoses are not blocked up. Check the valves (16 & 31)

ELECTRO MODE

FAULTS	CHECKS
The electronic supply box (STD 9 power supply unit) does not switch on in production or if it does not switch off when you are waiting	Change the relay (5)

18. DISASSEMBLY - REASSEMBLY

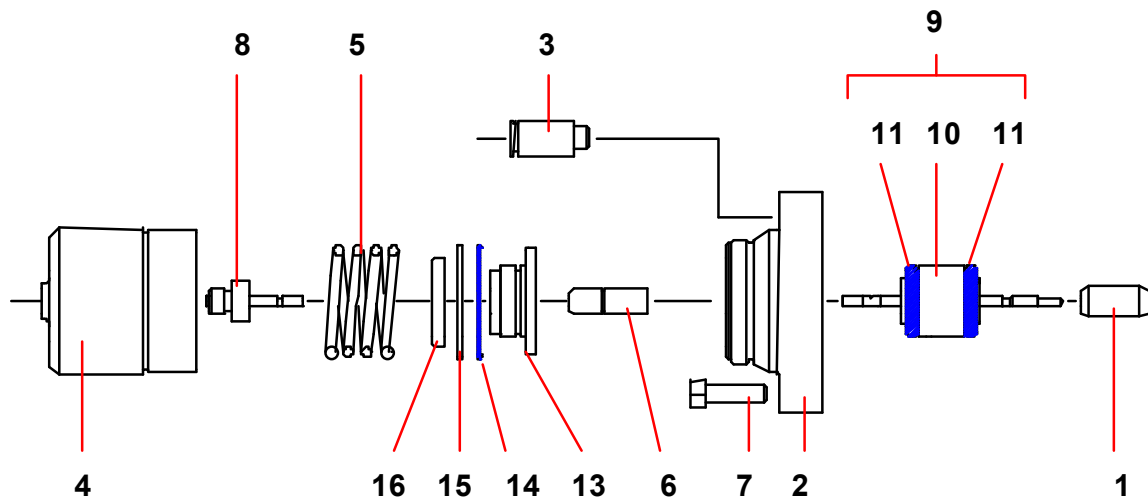
Stop the machine after the flushing. Depressurize the circuits.

The machine 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.

■ MIXER

Unscrew the mixer assembly and replace it with a new one.

■ PILOTED VALVES - 200 BAR / 2900.6 PSI (FLUID VALVES AND TEST VALVES)



CARTRIDGE OF A FLUID VALVE (IND. 9)

Unscrew the 3 screws (7).

Remove the valve from the module body.

Unscrew the needle (1) and the cylinder (4).

Hold the rod strainer (6), unscrew the needle rod and remove the cartridge assembly with rod (9).

Assemble the new cartridge (9) into the cylinder support (2) pushing it until the shoulder of the cartridge rests on the shoulder of that support, then reassemble all parts of the valve in reverse order of the disassembly.

Present the valve in front of the module body.

Center the cartridge (9) on the module body then reassemble the screws (7).

PISTON PACKING (IND. 14)

Unscrew cylinder (4).

Remove spring (5).

Unscrew the opening signal light (8).

Unscrew nut (16).

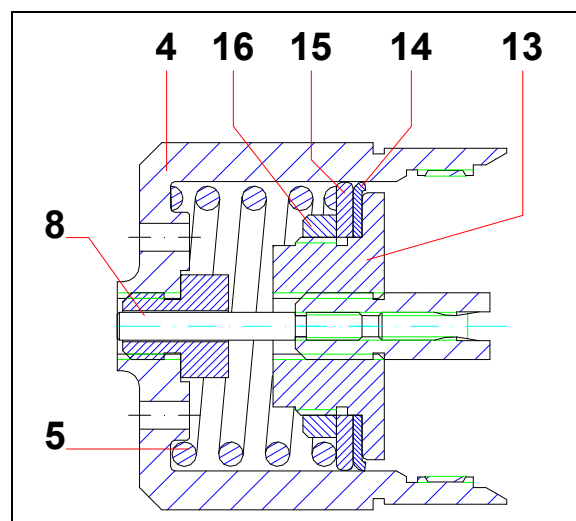
Remove the support washer (15) and the packing (14).

Clean the parts and change them if necessary.

When reassembling :

Before assembling on the piston (13), take care of shaping the cartridge lip (14) by hand as shown in the above drawing (cartridge turned up on the piston).

The nut (16) must be glued on the piston (13) with loctite adhesive (eg : Loctite 222).



19. PREVENTIVE MAINTENANCE PLAN

SUBSET	ELEMENT	OPERATION TO CARRY OUT	TIME EXPECTED	PERIODICITY	MACHINE STATE	TOOLS	SPARE PARTS P.N°
Mixer	Mixer	Remove and install a new mixer	2 mn	1 year	stop		Mixer 155.660.080
Meter	Flowmeter	Remove and clean	5 mn	2 months	stop	Appropriate cleaning solvent	
		Remove and install a new flowmeter	5 mn	1 year	stop		Flowmeter 055.660.001
Pilot valve	Pilot valve	Remove and change the cartridge	10 mn	1 year	stop		Cartridge 155.535.140
		Change the piston packing	10 mn	1 year	stop		Piston packing 029.711.302
Color changer	Pilot valve	Remove and change the cartridge	10 mn	1 year	stop		Cartridge 155.535.140
		Change the piston packing	10 mn	1 year	stop		Piston packing 029.711.302
AIRMIX® filter	Filter	Remove and clean the filter screen	5 mn	1 month	stop	Appropriate cleaning solvent	Screen # 6 129.609.908 (pack of 5) Seal 129.529.918
		Remove and install a new filter	2 mn	6 months	stop		Complete AIRMIX® filter 155.010.100



**MACHINE DE DOSAGE
CYCLOMIX™ MULTI**

**CYCLOMIX™ MULTI
ELEKTRONISCHE DOSIERUNG**

ANNEXES

**CYCLOMIX™ MULTI
DOSING MACHINE**

**MÁQUINA DE DOSIFICACIÓN
CYCLOMIX™ MULTI**

Manuel / Manual / Bedienungsanleitung / Libro : 1201 573.185.120

Date / Datum / Fecha : 02/01/12 - Annule / Supersede / Ersetzt / Anula : 29/08/07

Modif./Änderung : Mise à jour / Update / Aktualisierung / Actualización

NOTICE ORIGINALE / TRANSLATION OF THE ORIGINAL MANUAL / ÜBERSETZUNG DER ORIGINALE BEDIENUNGSANLEITUNG / TRADUCCIÓN DEL LIBRO ORIGINAL

Rapport de dosage	Mix ratio	Mischungsverhältnis	Relación de mezcla
Schéma pneumatique	Pneumatic diagram	Pneumatikschema	Esquema neumático
Schéma électrique	Electrical diagram	Elektroschema	Esquema eléctrico

SAMES KREMLIN SAS
13, chemin de Malacher
38 240 - MEYLAN - France
☎ : 33 (0)4 76 41 60 60

www.sames-kremlin.com

RAPPORT DE DOSAGE - MIX RATIO - MISCHUNGSVERHÄLTNIS - RELACIÓN DE MEZCLA

A : Base / Basis

$$B / A \times 100 = X\%$$

B : Catalyseur / Catalyst / Härter / Cata

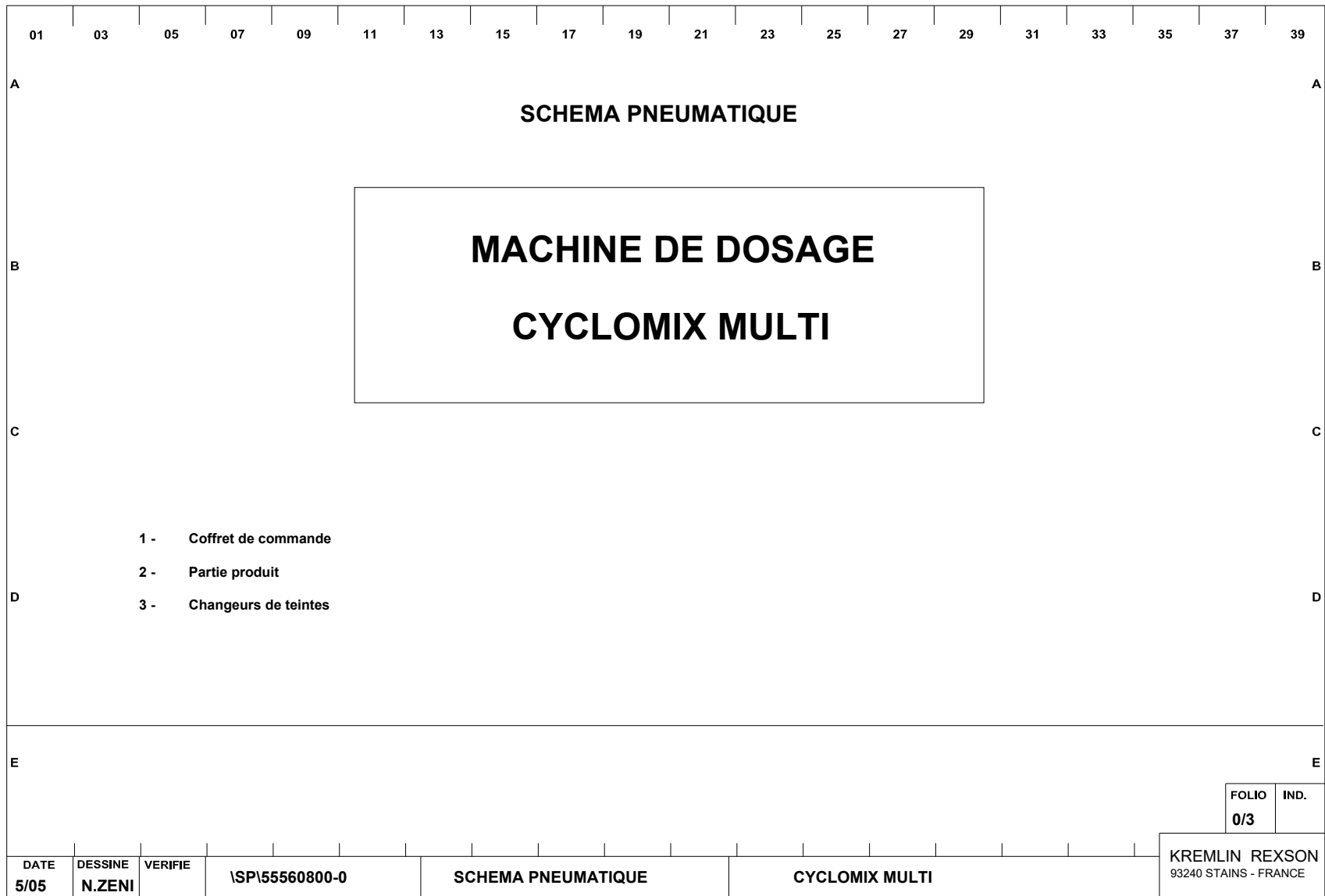
Ex : A = 2.5 B = 1 \Rightarrow 1 / 2.5 x 100 = 40%

A	B	%
0.6	1	167
1	1	100
1.5	1	66.7
2	1	50
2.5	1	40
3	1	33.3
3.5	1	28.6
4	1	25
4.5	1	22.2
5	1	20
5.5	1	18.2
6	1	16.7
6.5	1	15.4
7	1	14.3
7.5	1	13.3
8	1	12.5
8.5	1	11.8
9	1	11.1
9.5	1	10.5
10	1	10

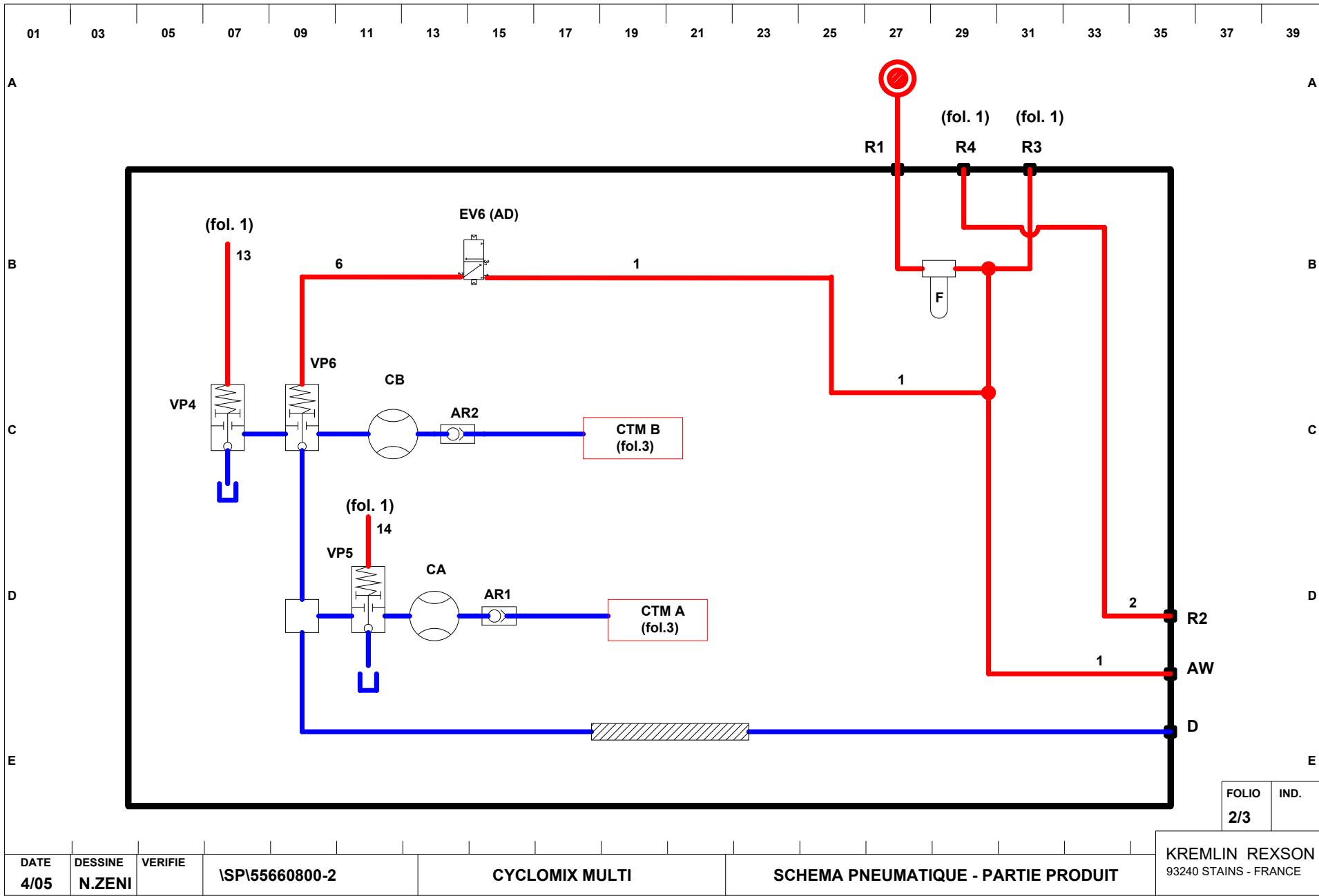
A	B	%
10.5	1	9.524
11	1	9.091
11.5	1	8.696
12	1	8.333
12.5	1	8
13	1	7.692
13.5	1	7.407
14	1	7.143
14.5	1	6.897
15	1	6.667
15.5	1	6.452
16	1	6.25
16.5	1	6.061
17	1	5.882
17.5	1	5.714
18	1	5.556
18.5	1	5.405
19	1	5.263
19.5	1	5.128
20	1	5

CYCLOMIX™ MULTI

SCHEMA PNEUMATIQUE - PNEUMATIC DIAGRAM - PNEUMATIKSCHEMA - ESQUEMA NEUMÁTICO



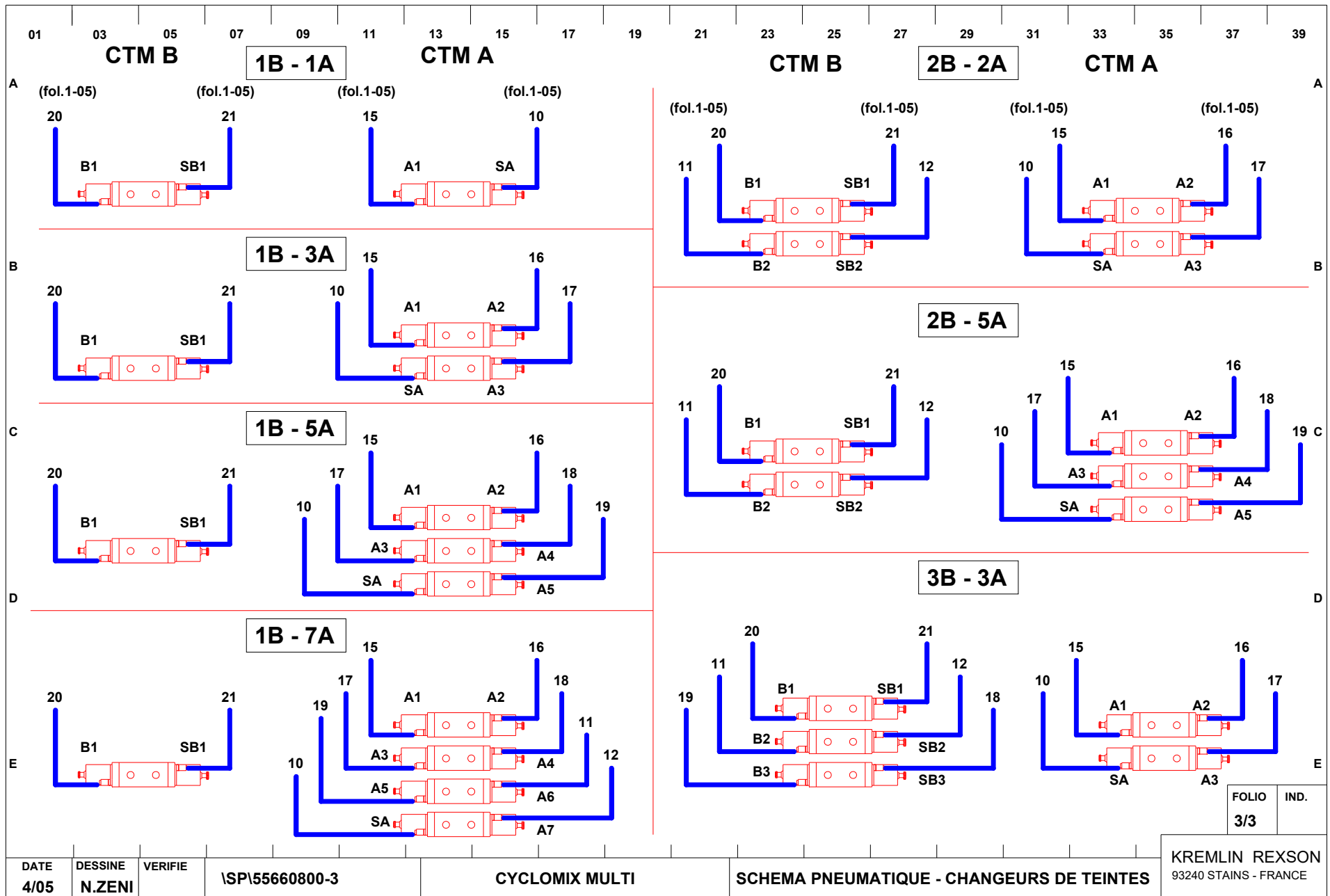
Fol.	Sommaire	Summary	Inhalt	Sumario
1	Coffret de commande	Control cabinet	Gehäuse	Armario de mando
2	Partie produit	Mixing unit	Materialteil	Parte productio
3	Changeurs de teintes	Color changer	Farbwechselblock	Cambiador de tintes



FOLIO	IND.
2/3	

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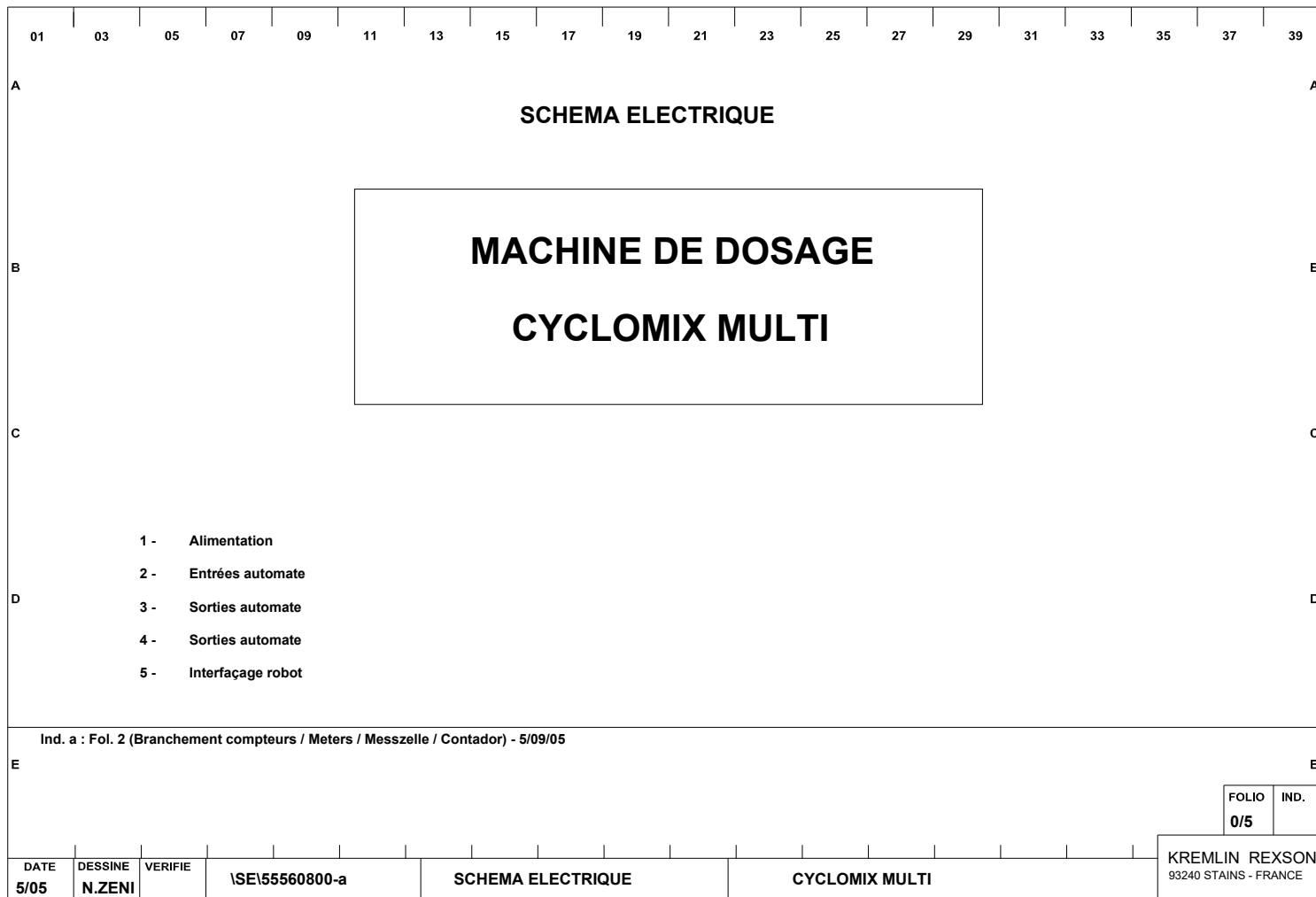
DATE	DESSINE	VERIFIE	ISP\55660800-2	CYCLOMIX MULTI	SCHEMA PNEUMATIQUE - PARTIE PRODUIT
4/05	N.ZENI				



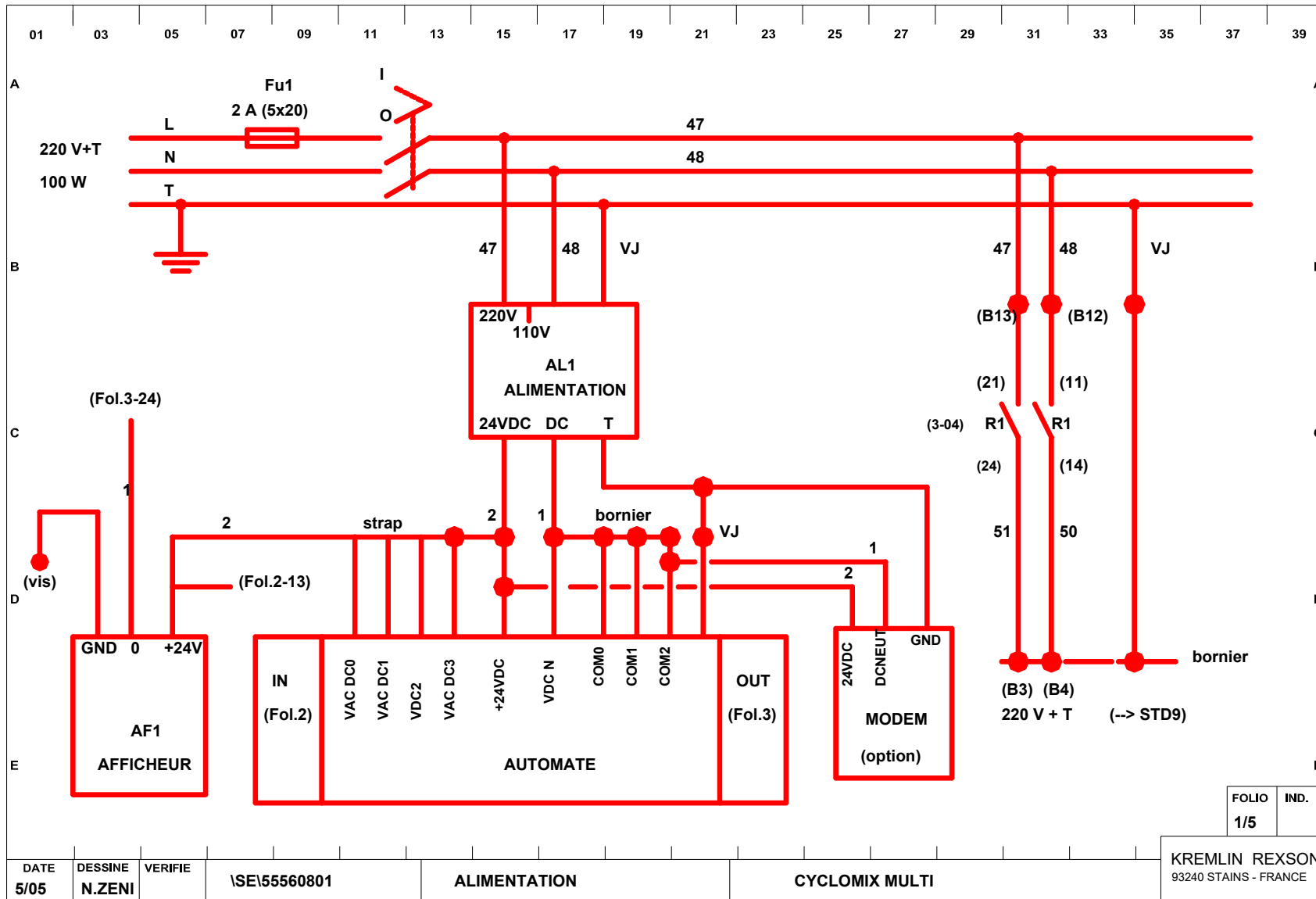
Ind.	Désignation	Description	Bezeichnung	Descripción
R1-R3	Alimentation en air	Air supply	Lufteingang	Alimentación en aire
R2-R4	Air de pulvérisation (→ pistolet)	Spraying air (→ gun)	Zerstäuberluft zur Pistole	Aire de pulverización (→ pistola)
F	Filtre à air	Air filter	Luftfilter	Filtro de aire
H	Manomètre (air de pulvérisation)	Gauge (Spraying air)	Manometer (Zerstäuberluft)	Manómetro (aire de pulverización)
I	Détendeur d'air	Air regulator	Luftdruckminderer	Manorreductor de aire
J	Manomètre (air général)	Gauge (air supply)	Manometer (Lufteingang)	Manómetro (aire general)
K	Poussoir (rinçage d'urgence)	Push button (emergency flushing)	Drucktaster (Notspülung)	Pulsador (limpieza de emergencia)
D1	Distributeur 5/2 – T2	Distributor 5/2 – T2	5/2 Wege Ventil – T2	Distribuidor 5/2 - T2
DB1	Débistat	Flow switch	Fließschalter	Debistat
EV xx	Electrovannes	Electrovalves	Elektroventil	Electroválvulas
PR1	Pressostat	Pressure switch	Druckschalter	Pressostato
C1	Cellule "OU"	Cell "OR"	Pneumatik-Zelle	Cedula "O"
AR x	Clapet anti-retour	Non-return valve	Rückschlagventil	Válvula anti-retorno
CA	Compteur base	Base meter	Basis-Messzelle	Contador base
CB	Compteur cata	Catalyst meter	Härter-Messzelle	Contador cata
CTM A	Changeur de teintes base	Base color changer	Basis -Farbwechselblock	Cambio de color, base
CTM B	Changeur de teintes cata	Catalyst color changer	Härter-Farbwechselblock	Cambio de color, cata
Ax	Vanne produit Base	Base valve	Basis-Ventil	Válvula producto Base
SA	Vanne solvant Base	Solvent Base valve	Spülmittel-Ventil Basis	Válvula disolvente Base
Bx	Vanne produit Cata	Catalyst valve	Härter-Ventil	Válvula producto Cata
SBx	Vanne solvant Cata	Solvent Cata valve	Spülmittel-Ventil Härter	Válvula disolvente Cata
VP 4	Vanne test cata	Cata test valve	Härter-Auslitterrohr	Válvula test cata
VP 5	Vanne test base	Base test valve	Basis-Auslitterrohr	Válvula test base
VP 6	Vanne injection	Injection valve	Injektions-Ventil	Válvula inyección

CYCLOMIX MULTI™

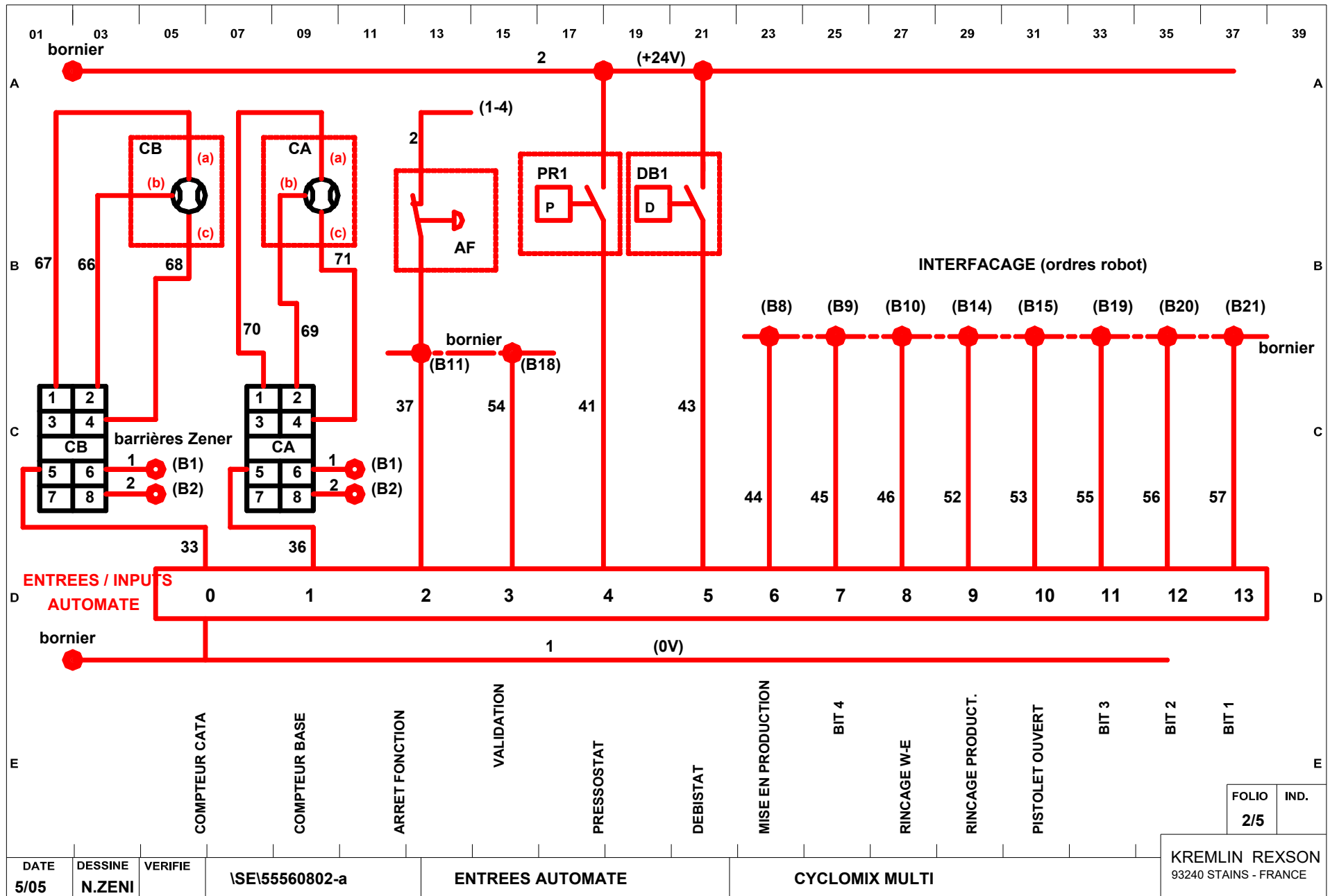
SCHEMA ELECTRIQUE - ELECTRIC DIAGRAM - ELEKTROSCHEMA - ESQUEMA ELÉCTRICO



Fol.	Sommaire	Summary	Inhalt	Sumario
1	Alimentation	Power supply	Versorgung	Alimentación
2	Entrées automate	Automat inputs	Eingänge zum Rechner	Entradas automática
3	Sorties automate	Automat outputs	Ausgänge vom Rechner	Salidas automática
4	Sorties automate	Automat outputs	Ausgänge vom Rechner	Salidas automática
5	Interfaçage robot	Robot interface unit	Schnittstellen mit Roboter	Interface robot



Ind.	Désignation	Description	Bezeichnung	Descripción
AF1	Afficheur	Readout	Display mit Tastatur	Visualizador
AL1	Alimentation (220V/110V – 24V)	Power supply	Versorgung (220V/110V – 24V)	Alimentación (220V/110V -24V)
	Bornier	Terminal block	Klemmleiste	Bornero



Fol. 2

	Ind.	Désignation	Description	Bezeichnung	Descripción
		ENTREES AUTOMATE	AUTOMAT INPUTS	EINGÄNGE ZUM RECHNER	ENTRADAS AUTÓMATA
IN 0	CB	Compteur cata	Catalyst meter	Härter-Messzelle	Contador cata
IN 1	CA	Compteur base	Base meter	Basis-Messzelle	Contador base
IN 2	AF	Arrêt fonction	Function stopping	Funktion Stopp	Parada función
IN 3		Validation	Validation	Bestätigung	Validación
IN 4	PR1	Pressostat	Pressure switch	Druckschalter	Pressostato
IN 5	DB1	Débistat	Flow switch	Fließschalter	Debistat
		Interfaçage (ordres robot)	Robot interface unit	Schnittstelle zum Roboter	Interface (órdenes robot)
IN 6		Mise en production	Production	Produktion	Puesta en producción
IN 7		Bit 4	Bit 4	Bit 4	Bit 4
IN 8		Rinçage Week end	Week end flushing	Spülvorgang Wasserlack	Limpieza fin de semana
IN 9		Rinçage production	Production flushing	Spülvorgang Standard	Limpieza producción
IN 10		Pistolet ouvert	Gun opened	Geöffnete Pistole	Pistola abierta
IN 11		Bit 3	Bit 3	Bit 3	Bit 3
IN 12		Bit 2	Bit 2	Bit 2	Bit 2
IN 13		Bit 1	Bit 1	Bit 1	Bit 1

Fol. 3

	Ind.	Désignation	Description	Bezeichnung	Descripción
		SORTIES AUTOMATE	AUTOMAT OUTPUTS	AUSGÄNGE VOM RECHNER	SALIDAS AUTÓMATA
	R1	Relais Mise sous tension boîtier STD9	Relay Switching on STD9 box	Relais Versorgungsspannung zum STD9 Steuergerät	Relé Puesta en tensión armario de control STD9
OUT 0	EV1	Ouverture vanne solvant SA	Opening of SA solvent valve	Öffnen des Spülventils SA	Apertura válvula disolvente SA
OUT 1	EV2	Ouverture vannes A6 / B2	Opening of valves, A6 / B2	Öffnen des Ventils A6 / B2	Apertura válvulas A6 / B2
OUT 2	EV3	Ouverture vannes A7 / SB2	Opening of valves, A7 / SB2	Öffnen des Ventils A7 / SB2	Apertura válvulas A7 / SB2
OUT 3	EV4	Ouverture vanne test cata	Opening of cata test valve	Öffnen des Härter - Testventils	Apertura válvula test cata
OUT 4	VR	Voyant rouge (Défaut)	Red led (Fault)	Rote Kontrolllampe	Indicador luminoso rojo (Defecto)
OUT 5	VO	Voyant orange (En travail)	Orange led (Working)	Gelbe Kontrolllampe (Fehler)	Indicador luminoso naranja (Trabajando)
OUT 6	VV	Voyant vert (En production)	Green led (In production)	Grüne Kontrolllampe (In Produktion)	Indicador luminoso verde (En producción)
OUT 7	EV5	Ouverture vanne test base	Opening of base test valve	Öffnen des Basis - Testventils	Apertura válvula test base
OUT 8	EV6	Ouverture vanne injecteur	Opening of injection valve	Öffnen des Härter - Injektionsventils	Apertura válvula inyector
OUT 9	EV7	Air de pulvérisation	Spraying air	Zerstäuberluft	Aire de pulverización

Fol. 4

	Ind.	Désignation	Description	Bezeichnung	Descripción
		Module 1	Modul, 1		
Mod.1 - OUT 0	EV8	Ouverture vanne A1	Opening of valve, A1	Öffnen des Ventils A1	Apertura válvula A1
Mod.1 - OUT 1	EV9	Ouverture vanne A2	Opening of valve, A2	Öffnen des Ventils A2	Apertura válvula A2
Mod.1 - OUT 2	EV10	Ouverture vanne A3	Opening of valve, A3	Öffnen des Ventils A3	Apertura válvula A3
Mod.1 - OUT 3	EV11	Ouverture vannes A4 / SB3	Opening of valves, A4 / SB3	Öffnen des Ventils A4 / SB3	Apertura válvulas A4 / SB3
Mod.1 - OUT 4	EV12	Ouverture vannes A5 / B3	Opening of valves, A5 / B3	Öffnen des Ventils A5 / B3	Apertura válvulas A5 / B3
Mod.1 - OUT 5	EV13	Ouverture vanne B1	Opening of valve, B1	Öffnen des Ventils B1	Apertura válvula B1
Mod.1 - OUT 6	EV14	Ouverture vanne SB1	Opening of valve, SB1	Öffnen des Ventils SB1	Apertura válvula SB1
Mod.1 - OUT 7		Commande ouverture pistolet	Gun opening control	Bestelle Öffnung Pistole	Mando apertura pistola

Ind.	Désignation	Description	Bezeichnung	Descripción
	INTERFACAGE ROBOT	ROBOT INTERFACE UNIT	SCHNITTSTELLEN	INTERFACE ROBOT
	Bornier CYCLOMIX™	CYCLOMIX™ terminal block	CYCLOMIX™ Klemmleiste	Bornero CYCLOMIX™
IN 6 →	Mise en production	Production	Produktion	Puesta en producción
IN 7 →	Bit 4	Bit 4	Bit 4	Bit 4
IN 8 →	Rinçage week end	Week end flushing	Spülvorgang Wasserlack	Limpieza fin de semana
IN 9 →	Rinçage production	Production flushing	Spülvorgang Standard	Limpieza producción
IN 3 →	Validation	Validation	Bestätigung	Validación
IN 10 →	Pistolet ouvert	Gun opened	Geöffnete Pistole	Pistola abierta
IN 11 →	Bit 3	Bit 3	Bit 3	Bit 3
IN 12 →	Bit 2	Bit 2	Bit 2	Bit 2
IN 13 →	Bit 1	Bit 1	Bit 1	Bit 1
OUT 7	Commande ouverture pistolet	Gun opening control	Bestelle Öffnung Pistole	Mando apertura pistola

Codage / Coding / Codierung / Codificación	Désignation	Description	Bezeichnung	Descripción
OUT 4 = 1	Défaut	Fault	Fehler	Defecto
OUT 5 = 1	En travail	Working	Arbeitsbereit	Trabajando
OUT 6 = 1	En production	In production	In Produktion	En producción
OUT 5 + OUT 6 = 1	En attente	Waiting	Warten	Esperando
OUT 4 + OUT 5 + OUT 6 = 1	En production et alarme débit	In production and flow alarm	In Produktion und Verbrauchsalarm	En producción y alarma caudal
OUT 4 + OUT 5 + OUT 6 = 0	En paramétrage	Programming	Programmierung	Programando
OUT 4 + OUT 5 = 1	Alarme dosage	Mixing alarm	Dosierungsalarm	Alarma dosificación

Doc. 573.344.050 Date/Datum/Fecha : 18/08/14 Annule/Cancel/ Ersetzt/Anula : 17/12/13	Modif. / Änderung : + Ind. / Pos. 41, + # 155 660 086	Pièces de rechange Spare parts list Ersatzteilliste Piezas de repuesto
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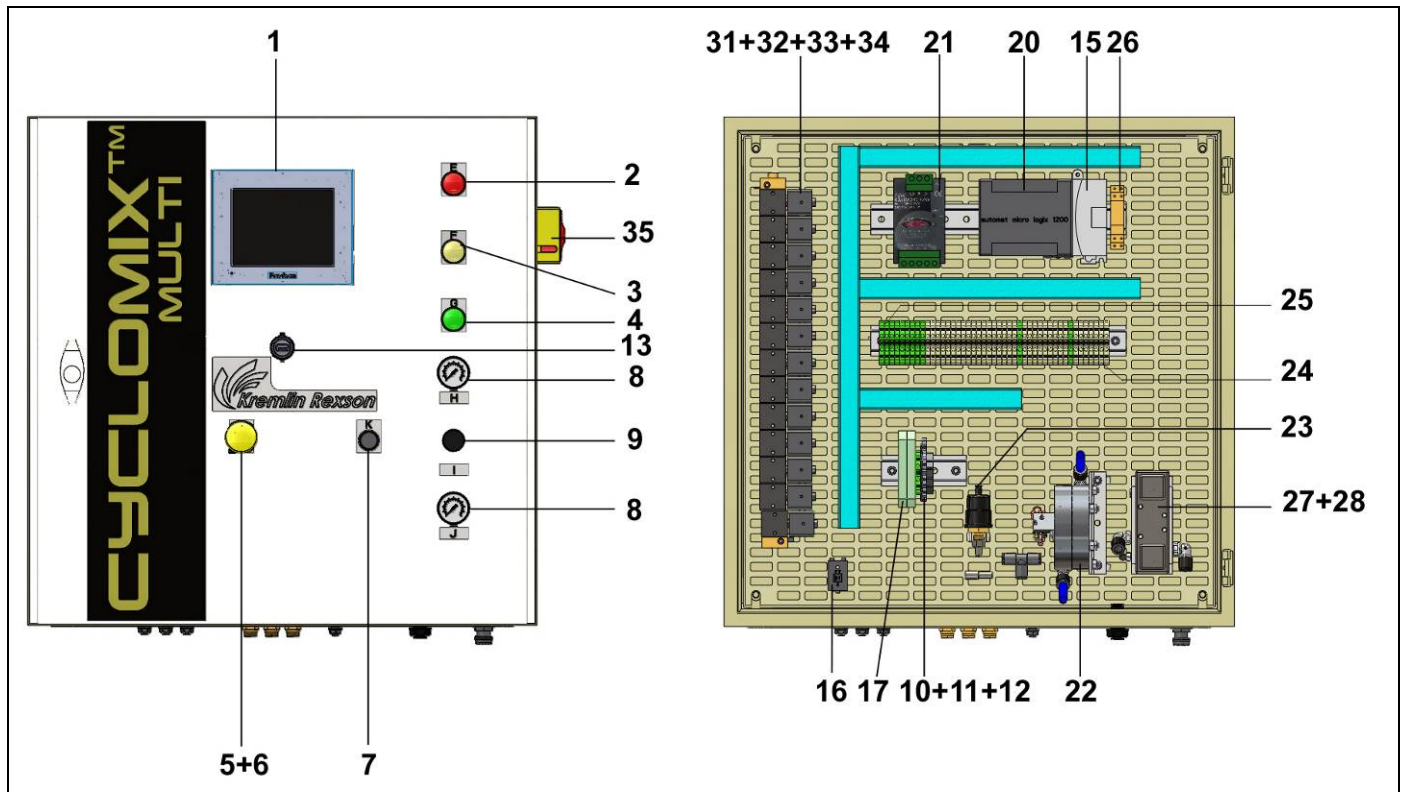
MACHINE DE DOSAGE ELECTRONIQUE - DOSING MACHINE
ELEKTRONISCHE DOSIERUNG - MÁQUINA DE DOSIFICACIÓN

CYCLOMIX™ MULTI



Nb Base / Basis	Nb Cata / Härter	#
3	1	155.660.813
5	1	155.660.815
7	1	155.660.817
3	2	155.660.823
5	2	155.660.825
3	3	155.660.833

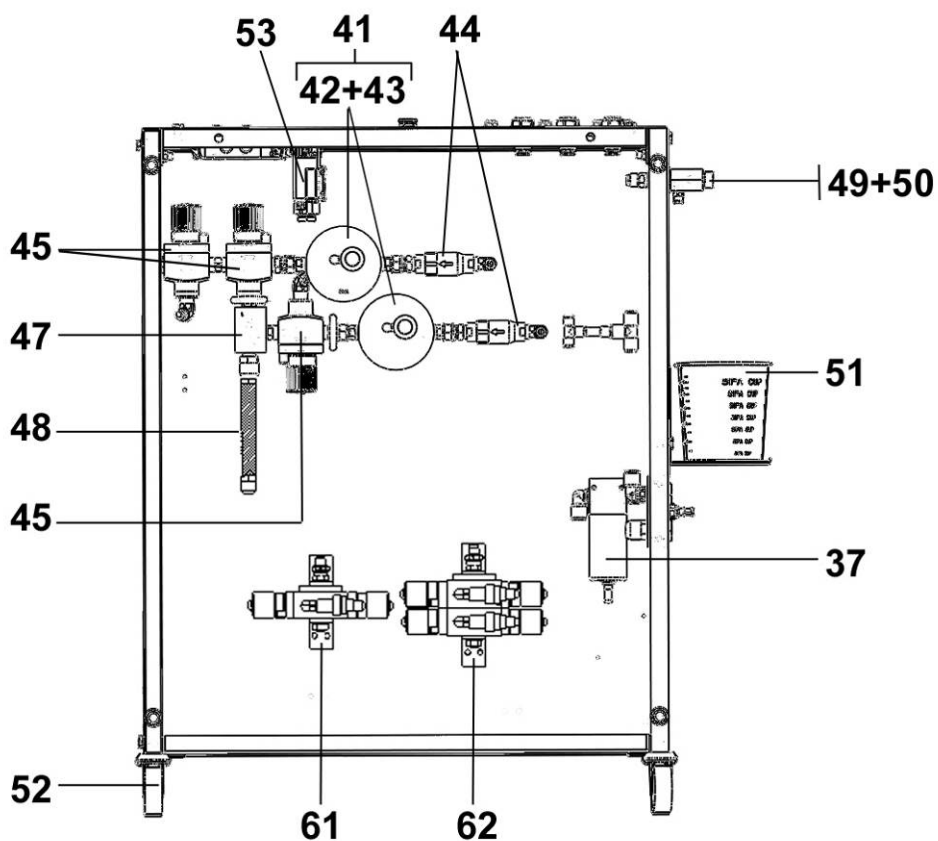
COFFRET DE COMMANDE / CONTROL CABINET / SCHALTSCHRANK / ARMARIO DE MANDO



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1	055 660 715	Afficheur avec programme	Display unit with program	Display mit Programm	Visualizador con programa	1
-	155 660 709	Film de protection pour afficheur (les 10)	Protective film for display unit (pack of 10)	Schutzfolie für Display (10 St.)	Película de protección para visualizador (x 10)	1
*2	901 280 185	Voyant rouge	Red light	Rote Kontrollampe	Indicador luminoso rojo	1
*3	901 280 186	Voyant jaune	Yellow light	Gelbe Kontrollampe	Indicador luminoso amarillo	1
*4	901 280 187	Voyant vert	Green light	Grüne Kontrollampe	Indicador luminoso verde	1
5	901 280 188	Tête coup de poing jaune	Push button, yellow	Gelber Druckschalter	Botón pulsador amarillo	1
6	901 280 189	Corps de poussoir	Push body	Druckschalterkörper	Cuerpo de pulsador	1
7	NC / NS	Micro valve avec bouton poussoir noir	Micro valve with black push button	Mikroventil mit schwarzem Druckschalter	Micro válvula con botón pulsador negro	1
*8	910 011 205	Manomètre	Gauge	Manometer	Manómetro	2
*9	903 130 601	Détendeur d'air 0,5 - 8,5 bar	Air regulator, 0,5 - 8,5 bar / 7.25 - 123 psi	Luftdruckminderer 0,5 - 8,5 bar	Manorreductor de aire 0,5 - 8,5 bar	1
10	901 060 425	Borne à diode	Component terminal block	Bauelement-Reihenklamme	Terminal de diodo	1
11	901 060 426	Cloison terminale	Terminal block	Abschluss- und Zwischenplatte für Reihenklamme	Tabique	1
12	901 060 427	Butée de blocage	End bracket	Endklammer/-halter	Tope de bloqueo	1
13	901 480 122	Port USB	USB port	USB Anschluss	Puerto USB	1
15	901 480 114	Module 8 sorties TOR	Module "8 outlets"	Modul mit "8 Ausgängen"	Modulo "8 salidas"	1
16	903 050 415	Cellule OU	Cell	ODER-Ventil	Cedula	1
17	903 050 523	Barrière Zener	Zener barrier	Zener Barriere	Barrera Zener	2
20	155 660 710	Automate	Automaton	Automat	Autómata	1

*21	901 480 110	Alimentation 75W - 24V	Supply 75W - 24 V	Versorgung 75W - 24 V	Alimentación 75W - 24 V	1
22	148 180 100	Débistat (voir Doc. 573.320.050)	Flow switch (refer to Doc. 573.320.050)	Fließschalter (Siehe Dok. 573.320.050)	Debistat (consultar Doc. 573.320.050)	1
23	901 011 710	Pressostat	Pressure switch	Druckschalter	Presostato	1
24	901 060 406	Bornier	Connexion plate	Klemmleiste	Bornero	34
25	901 060 417	Borne de terre	Earth terminal	Erdungsschiene	Toma de tierra	12
*26	901 205 607	Relais 24V - 2 CT	Relay 24 V - 2CT	Relais 24V - 2 CT	Relé 24 V - 2 CT	1
27	903 050 420	Distributeur 5/2 - T2	Distributor 5/2 - T2	5/2 Wege Ventil - T2	Distribuidor 5/2 - T2	1
28	903 050 419	Embase ISO T2	Base ISO T2	ISO-Anschlussplatte	Base ISO T2	1
*31	903 050 516	Electrovannes 24V DC	Electrovalves, 24V DC	Elektroventil 24V DC	Electroválvulas 24V DC	13
32	903 050 519	Connecteur avec câble	Connector with cable	Spule mit Kabel	Conectador con cable	13
33	903 050 517	Embase	Base	Anschlussplatte	Base	11
34	903 050 518	Embase juxtaposable	Base	Anschlussplatte	Base	1
35	901 280 191	Interrupteur	Switch	Schalter	Interruptor	1

PARTIE PRODUIT / MIXING UNIT / MATERIALTEIL / PARTE PRODUCTO



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
37	903 220 116	Filtre à air	Air filter	Luftfilter	Filtro de aire	1
*41	155 660 078	Ensemble compteur (voir détail)	Meter assembly (see detail)	Volumenmessgerät kpl. (siehe Detail)	Conjunto contador (ver detalle)	2
*44	903 160 510	Clapet anti retour inox	Non-return valve, stainless steel	Rückschlagventil, Edelstahl	Válvula anti-retorno inox	2
*45	155 528 000	Clapet 200 bar (voir détail)	Valve, 200 bar / 2900 psi (see detail)	Ventil 200 bar (siehe Detail)	Válvula 200 bar (ver detalle)	3
47	055 660 070	Bloc d'injection	Injection unit	Injektions-Block	Bloque de inyección	1
*-	155 660 071	▪ Buse Ø 2	▪ Nozzle, model Ø 2	▪ Düse Ø 2	▪ Boquilla, tipo Ø 2	1
*48	155 660 080	Ensemble mélangeur souple (1m - 375 bar)	Flexible mixer assembly (1 m - 375 bar / 5440 psi)	Mischer-Schlauch mit Anschlüssen (1m - 375 bar)	Conjunto mezclador flexible (1m - 375 bar)	1
49	055 660 055	Robinet pointeau inox	Needle valve, st. steel	Nadelventil, Edelstahl	Grifo aguja inox	2
*50	129 272 030	▪ Joint (les 10)	▪ Seal (pack of 10)	▪ Dichtung (Satz à 10 St.)	▪ Junta (bolsa de 10)	1
51	910 090 102	Gobelet gradué (650 ml)	Graduated cup (650 ml)	Messbecher (650 ml)	Copa graduada (650 ml)	2
52	906 050 613	Roulette	Wheel	Lenkrolle	Rueda	4
53	903 050 541	Electrovanne	Electrovalve	Elektroventil	Electroválvula	1
61↓ 63	155 660 75x	Changeur de teintes (Cata) (voir détail)	Color changer assembly (Catalyst) (see detail)	Farbwechselblock (Härter) (Siehe Detail)	Conjunto cambiador de tintes (Cata) (ver detalle)	1
62↓ 64	155 660 75x	Changeur de teintes (Base) (voir détail)	Color changer assembly (Base) (see detail)	Farbwechselblock (Basis) (Siehe Detail)	Conjunto cambiador de tintes (base) (ver detalle)	1
-	000 972 025	Raccord produit droit (M 1/4 NPT - M 1/2 JIC)	Straight fluid fitting (M 1/4 NPT - M 1/2 JIC)	Gewindenippel (AG 1/4 NPT - AG 1/2 JIC)	Racor recto producto (M 1/4 NPT - M 1/2 JIC)	x
-	905 160 218	Raccord produit tournant (M 1/4 NPT - F 1/2 JIC)	Swivel fluid fitting (M 1/4 NPT - F 1/2 JIC)	Drehgelenk (AG 1/4 NPT - IG 1/2 JIC)	Racor producto giratorio (M 1/4 NPT - H 1/2 JIC)	2
*-	050 450 651	Tuyau produit (Ø 4,8 mm, long. 0,6 m, raccords inox, 240 bar)	Fluid hose (3/16" dia, 0.6 m long, stainless steel hoses, 240 bar / 3481 psi)	Materialschlauch (Ø 4,8 mm, Länge: 0,6 m, Anschlüsse Edelstahl, 240 bar)	Tubería producto (Ø 4.8 mm, 0.6 m de largo, racoeres de inox, 240 bar)	3
*-	050 452 010	Tuyau CATA (PTFE, Ø 4,8 mm, long. 0,6 m, raccords inox, 240 bar)	CATA hose (PTFE, 3/16" dia, 0.6 m long, stainless steel hoses, 240 bar / 2481 psi)	Härtereschlauch (PTFE, Ø 4,8 mm, Länge : 0,6 m, Anschlüsse Edelstahl, 240 bar)	Tubería CATA (PTFE, Ø 4.8 mm, 0.6 m de largo, racores de inox, 240 bar)	1

**DEBITMETRES ET CAPTEURS / FLOWMETERS AND SENSORS
MESSZELLEN UND SENSOREN / CAUDALÍMETROS Y CAPTADORES**

**Nouveaux débitmètres et capteurs / New flowmeters and sensors
/ Neue Messzelle und Sensor / Nuevos caudalímetros y captadores**



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*41	155 660 078	Ensemble compteur	Meter assembly	Volumenmessgerät kpl.	Conjunto contador	2
*42	155 660 041	▪ Débitmètre	▪ Flowmeter	▪ Messzelle	▪ Caudalímetro	1
-	155 660 082	▪ ▪ Joint (les 3)	▪ ▪ Seal (pack of 3)	▪ ▪ Dichtung (Satz à 3 St.)	▪ ▪ Junta (bolsa de 3)	1
*-	155 660 086	▪ Ensemble capteur	▪ Sensor assembly	▪ Sensor Einheit	▪ Conjunto captador	1
*43	910 060 106	▪ ▪ Capteur	▪ ▪ Sensor	▪ ▪ Sensor	▪ ▪ Captador	1
-	NC / NS	▪ ▪ Connecteur	▪ ▪ Connector	▪ ▪ Anschluss	▪ ▪ Conector	1

Nota : A partir d'août 2014 de nouveaux débitmètres et capteurs seront installés sur nos machines.
Si vous possédez une machine dont le numéro de série est antérieur à 14Y1124 et que vous désirez remplacer l'un de vos débitmètres ou de vos capteurs merci de vous référer au document 573.705.070.

Nota : From August 2014 new flowmeters and sensors will be installed on our machines.
If you have a machine which reference number is prior to 14Y1124 and if you want to replace one of your flowmeters or sensors, please refer to the document 573.705.070.

Anmerkung : Seit August 2014 werden in unsere Anlagen neue Messzellen und Sensoren eingebaut.
In einer Übergangsphase kann es sein, dass an der Maschine alte und neue Volumenmessgeräte nebeneinander eingebaut sind. Dies hat keinerlei Einfluss auf die Mischqualität und Zuverlässigkeit der Anlage. Wenn Sie eine Maschine mit der Seriennummer kleiner als 14Y1124 haben, und Sie wollen eine Messzelle oder Sensor ersetzen, dann schauen Sie im Dokument 573.705.070 nach.

Nota : A partir de Agosto de 2014, se instalarán nuevos caudalímetros y captadores en nuestras máquinas.
Si tiene una máquina cuyo número de serie es anterior a 14Y1124 y si desea cambiar uno de sus caudalímetros o captadores, por favor consulte el documento 573.705.070.

<p>(ind. 45)</p> <p>CLAPET PILOTÉ PILOTED VALVE VENTIL VÁLVULA PILOTADA</p> <p>200 bar / 2900 psi</p> <p># 155.528.000</p>	
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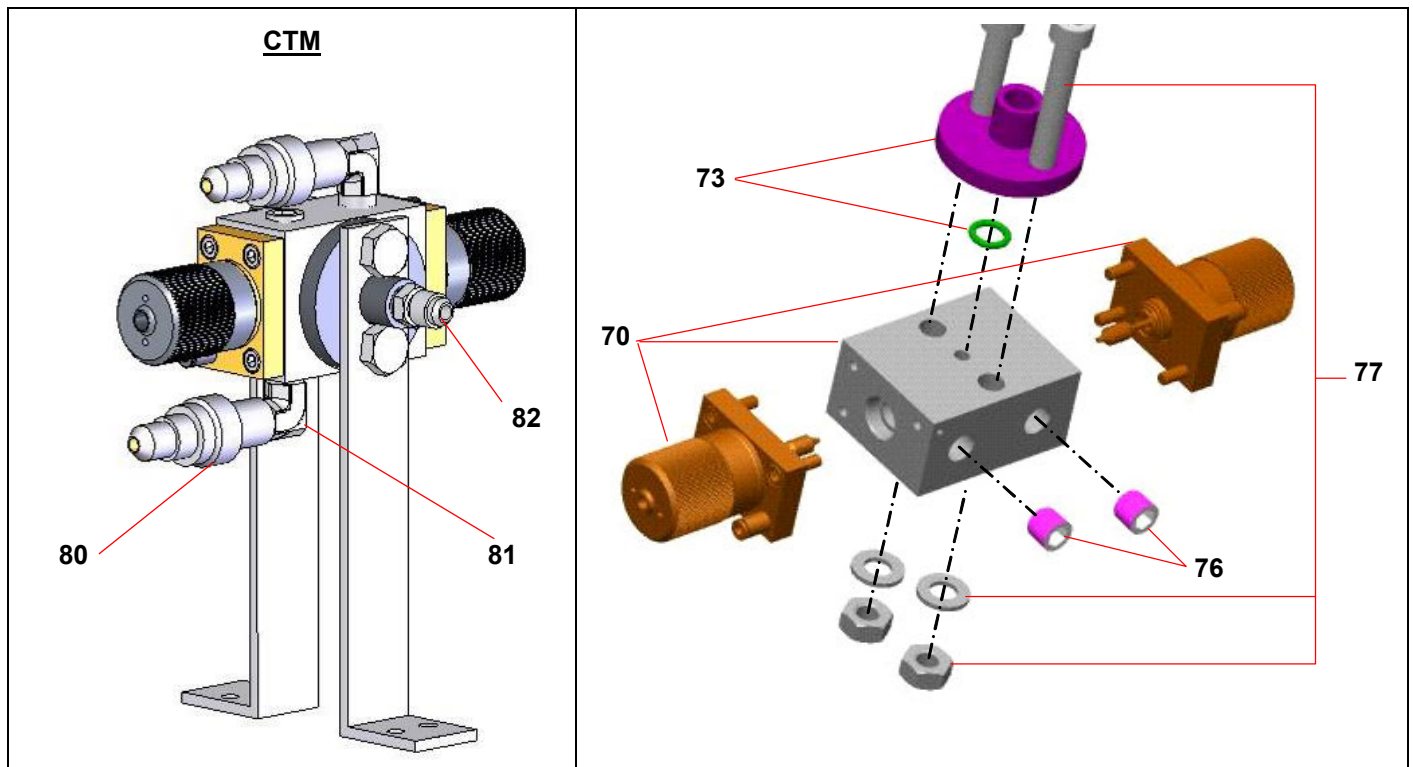
Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
68	055 528 001	Corps	Body	Körper	Cuerpo	1
*69	155 535 315	Vanne AIRMIX 200 bar (voir Doc. 573.188.050)	AIRMIX valve, 200 bar / 2900 psi (refer to Doc. 573.188.050)	AIRMIX-Ventil 200 bar (siehe Dok. 573.188.050)	Válvula AIRMIX 200 bar (consultar Doc. 573.188.050)	1
-	055 528 002	Bouchon pour clapet	Plug, valve	Blindstopfen für Ventil	Tapón para válvula	1

**CTM : ENSEMBLE CHANGEUR DE TEINTES / COLOR CHANGER ASSEMBLY
/ FARBWECHSELBLOCK / CONJUNTO CAMBIADOR DE TINTES
(AIRMIX ® 200 bar / 2900 psi)**

# CYCLOMIX MULTI	Nb Base / Basis	Nb Cata / Härter	CTM : Base / Basis Ind.	CTM : Cata / Härter Ind.
155.660.813	3	1	62 (3 base + 1 S)	61 (1 cata + 1 S)
155.660.815	5	1	63 (5 base + 1 S)	61 (1 cata + 1 S)
155.660.817	7	1	64 (7 base + 1 S)	61 (1 cata + 1 S)
155.660.823	3	2	62 (3 base + 1 S)	62 (2 cata + 2 S)
155.660.825	5	2	63 (5 base + 1 S)	62 (2 cata + 2 S)
155.660.833	3	3	62 (3 base + 1 S)	63 (3 cata + 3 S)

S : solvant / solvent / Verdünnung / disolvente

Ind.	# CTM	Module / Modul / Modulo (# 155.535.350)	Module / Modul / Modulo (# 155.535.450)	Bride / Flange / Flansch / Brida (# 155.535.500)	Filtre / Filter / Filtro (# 155.010.100)
61	155.660.751	1	-	1	2
62	155.660.752	1	1	1	4
63	155.660.753	1	2	1	6
64	155.660.754	1	3	1	8



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*70	155 535 350	Module d'extrémité AIRMIX 200 bar (voir Doc. 573.187.050)	End module 200 bar / 2900 psi (refer to Doc. 573.187.050)	Unteres Modul 200 bar (siehe Dok. 573.187.050)	Modulo AIRMIX de extremidad 200 bar (consultar Doc. 573.187.050)	1
-	155 535 450	Module intermédiaire (voir Doc. 573.187.050)	Intermediate module (refer to Doc. 573.187.050)	Zwischen Modul (siehe Dok. 573.187.050)	Modulo intermedio (consultar Doc. 573.187.050)	x
*73	155 535 500	Bride de sortie équipée	Flange assembly, outlet material	Ausgangsflansch, kpl	Brida de salida equipada	1
76	906 314 211	Bouchon 1/4 "	Plug, 1/4"	Blindstopfen 1/4"	Tapón 1/4"	2
77	-	Ensemble 2 tirants (voir Doc. 573.187.050)	Set of 2 tie-rods (refer to Doc. 573.187.050)	Verbindungsbolzen (Satz mit 2 Stück) (siehe Dok. 573.187.050)	Conjunto de 2 tirantes (consultar Doc. 573.187.050)	2

*80	155 010 100	Filtre Airmix® en ligne (voir Doc. 573.253.050)	Airmix® filter in-line (refer to Doc. 573.253.050)	Airmix®-In Line Filter (siehe Dok. 573.253.050)	Filtro Airmix® en línea (consultar Doc. 573.253.050)	2
*-	129 609 908	▪ Tamis n°6 (les 5)	▪ Screen n°6 (pack of 5)	▪ Sieb Nr 6 (Satz à 5 St.)	▪ Tamiz n°6 (bolsa de 5)	1
81	905 210 602	Raccord coudé inox (M 1/4 NPT - M 1/2 JIC)	Elbow fitting, stainless steel (male 1/4 NPT - male # 5 JIC)	Winkelnippel, Edelstahl (AG 1/4 NPT - AG 1/2 JIC)	Racor acodado inox (M 1/4 NPT - M 1/2 JIC)	2
82	000 972 025	Raccord produit droit (M 1/4 NPT - M 1/2 JIC)	Straight fluid fitting (M 1/4 NPT - # 5 JIC)	Gewindenippel (AG 1/4 NPT - AG 1/2 JIC)	Racor recto producto (M 1/4 NPT - M 1/2 JIC)	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.

 <p>AUTO-WASH # 155.660.300</p>	 <p>BOITIER DE COMMANDE A DISTANCE REMOTE CONTROL BOX FERNSTEUERUNGSEINHEIT ARMARIO DE MANDO A DISTANCIA</p> <p># 155.660.840</p>
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Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	055 660 550	Kit fibre optique	Fiber optic kit	Lichtwellenleitersatz	Kit fibra óptica	1
-	055 660 714	Kit afficheur	Display unit kit	Display Einheit	Kit visualizador	1
-	055 660 074	Kit electrovanne	Electrovalve	Elektroventilsatz	Kit electroválvula	1

Nota : # 055 660 714 : Kit afficheur pour machines dont le numéro de série est < à 13Y1185.

Nota : # 055 660 714 : Display unit kit for machines wich serial number < to 13Y1185.

Anmerkung : # 055 660 714 : Display Einheit für Maschinen ab Serien Nummer < 13Y1185.

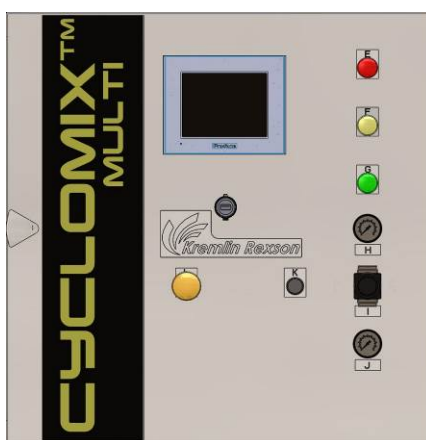
Nota : # 055 660 714 : Kit electroválvula para máquina cuyo número de série es < a 13Y1185.

Doc. 573.358.050 Date/Datum/Fecha : 18/08/14 Annule/Cancel/ Ersetzt/Anula : 17/12/13	Modif. / Änderung : + Ind. / Pos. 41a, 41b, 42c & 43c	Pièces de rechange Spare parts list Ersatzteilliste Piezas de repuesto
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MACHINE DE DOSAGE ELECTRONIQUE - DOSING MACHINE
ELEKTRONISCHE DOSIERUNG - MÁQUINA DE DOSIFICACIÓN

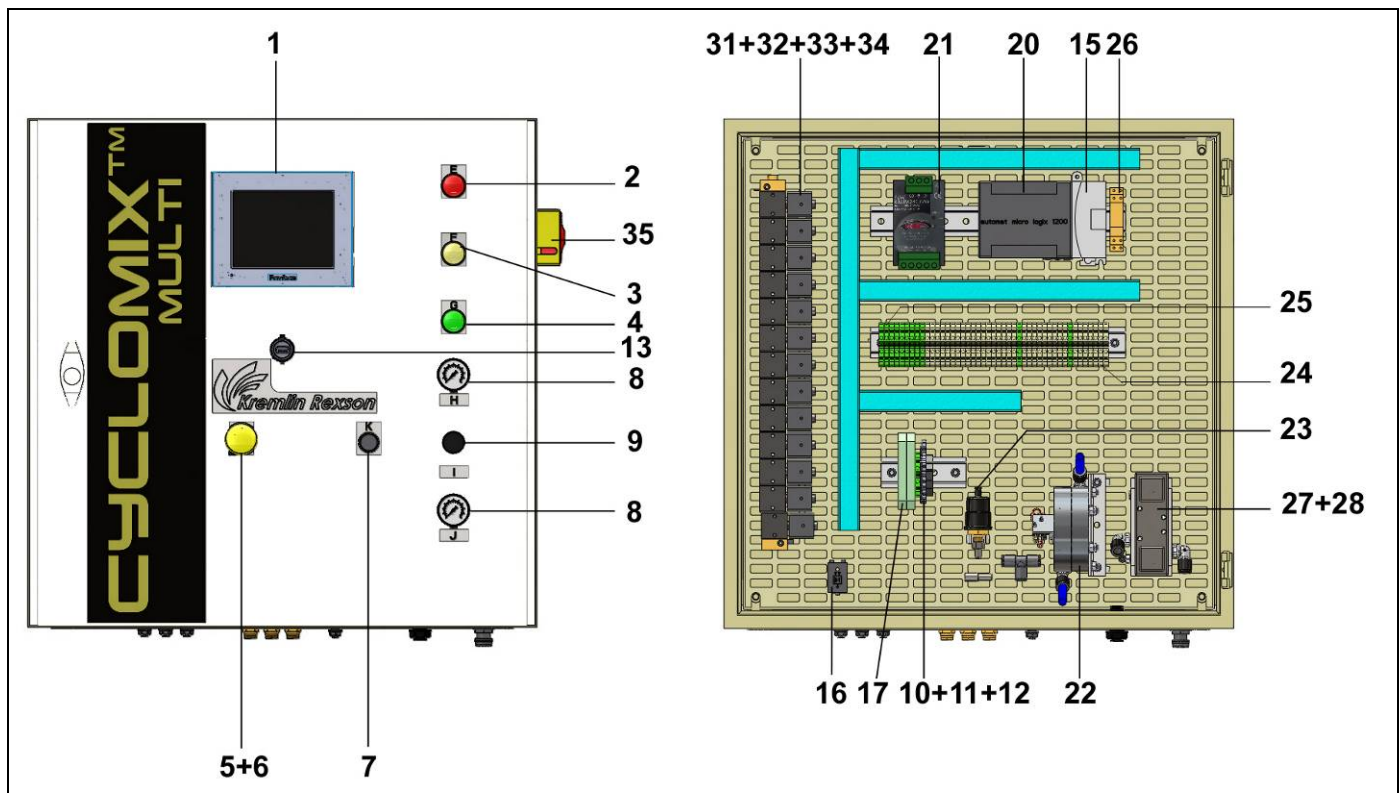
CYCLOMIX™ MULTI PH

Sans mélangeur, avec circuit catalyseur en inox 316 L
 Without mixer, with catalyst system, stainless steel 316 L
 Ohne Mischer, mit Härterssystem in Edelstahl 316 L
 Sin mezclador, con circuito catalizador de inox 316 L



Nb Base / Basis	Nb Cata / Härter	#
3	1 (316 L)	155.660.513
5	1 (316 L)	155.660.515
7	1 (316 L)	155.660.517

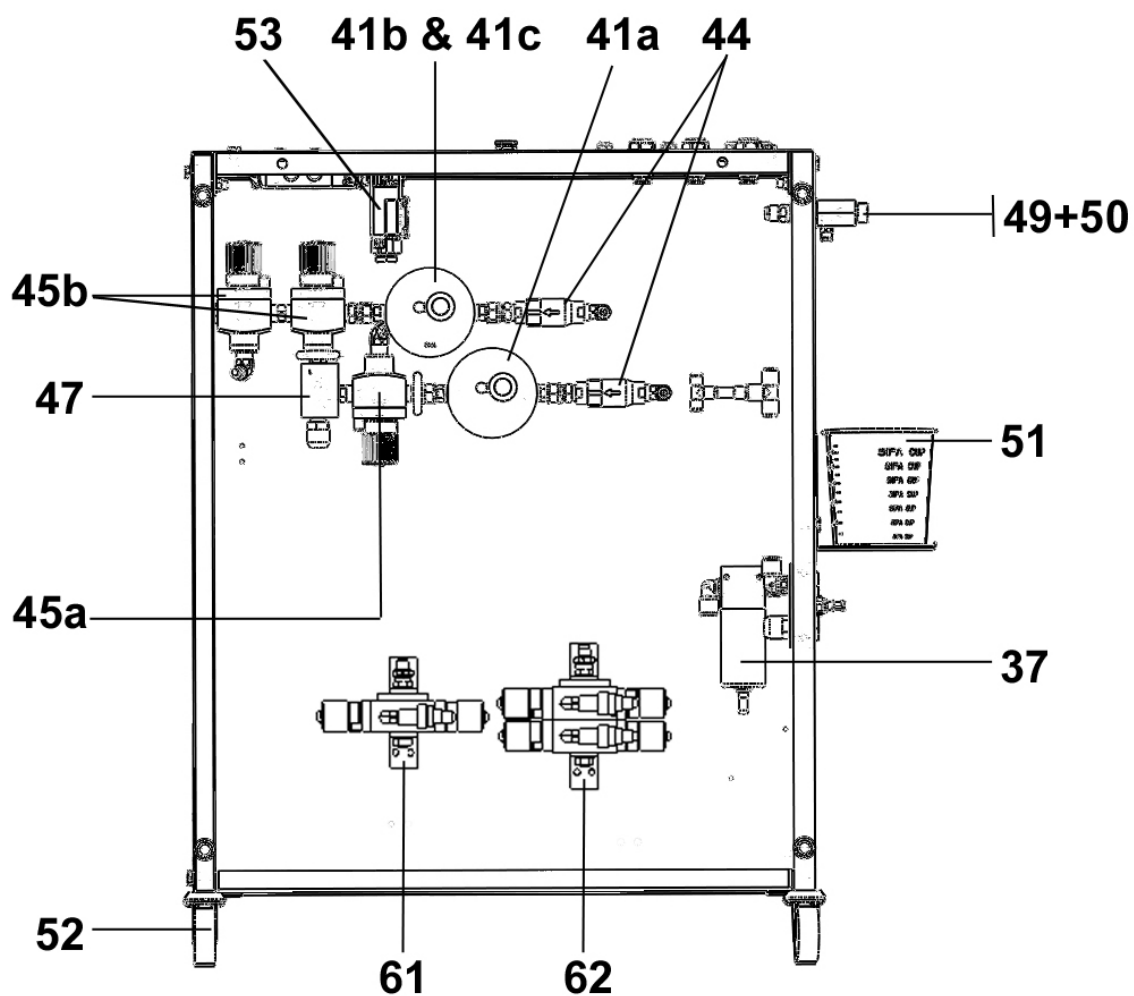
COFFRET DE COMMANDE / CONTROL CABINET / SCHALTSCHRANK / ARMARIO DE MANDO



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1	055 660 715	Afficheur avec programme	Display unit with program	Display mit Programm	Visualizador con programa	1
-	155 660 709	Film de protection pour afficheur (les 10)	Protective film for display unit (pack of 10)	Schutzfolie für Display (10 St.)	Película de protección para visualizador (x 10)	1
*2	901 280 185	Voyant rouge	Red light	Rote Kontrollampe	Indicador luminoso rojo	1
*3	901 280 186	Voyant jaune	Yellow light	Gelbe Kontrollampe	Indicador luminoso amarillo	1
*4	901 280 187	Voyant vert	Green light	Grüne Kontrollampe	Indicador luminoso verde	1
5	901 280 188	Tête coup de poing jaune	Push button, yellow	Gelber Druckschalter	Botón pulsador amarillo	1
6	901 280 189	Corps de poussoir	Push body	Druckschalterkörper	Cuerpo de pulsador	1
7	NC / NS	Micro valve avec bouton poussoir noir	Micro valve with black push button	Mikroventil mit schwarzem Druckschalter	Micro válvula con botón pulsador negro	1
*8	910 011 205	Manomètre	Gauge	Manometer	Manómetro	2
*9	903 130 601	Détendeur d'air 0,5 - 8,5 bar	Air regulator, 0,5 - 8.5 bar / 7.25 - 123 psi	Luftdruckminderer 0,5 - 8,5 bar	Manorreductor de aire 0,5 - 8,5 bar	1
10	901 060 425	Borne à diode	Component terminal block	Bauelement-Reihenklemme	Terminal de diodo	1
11	901 060 426	Cloison terminale	Terminal block	Abschluss- und Zwischenplatte für Reihenklemme	Tabique	1
12	901 060 427	Butée de blocage	End bracket	Endklammer/-halter	Tope de bloqueo	1
13	901 480 122	Port USB	USB port	USB Anschluss	Puerto USB	1
15	901 480 114	Module 8 sorties TOR	Module " 8 outlets"	Modul mit "8 Ausgängen"	Modulo " 8 salidas"	1
16	903 050 415	Cellule OU	Cell	ODER-Ventil	Cedula	1

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
17	903 050 523	Barrière Zener	Zener barrier	Zener Barriere	Barrera Zener	2
20	155 660 710	Automate	Automaton	Automat	Autómata	1
*21	901 480 110	Alimentation 75W - 24V	Supply 75W - 24 V	Versorgung 75W - 24 V	Alimentación 75W - 24 V	1
22	148 180 100	Débistat (voir Doc. 573.320.050)	Flow switch (refer to Doc. 573.320.050)	Fließschalter (siehe Dok. 573.320.050)	Debistat (consultar Doc. 573.320.050)	1
23	901 011 710	Pressostat	Pressure switch	Druckschalter	Presostato	1
24	901 060 406	Bornier	Connexion plate	Klemmleiste	Bornero	x
25	901 060 417	Borne de terre	Earth terminal	Erdungsschiene	Toma de tierra	x
*26	901 205 607	Relais 24V - 2 CT	Relay 24 V - 2CT	Relais 24V - 2 CT	Relé 24 V - 2 CT	1
27	903 050 420	Distributeur 5/2 - T2	Distributor 5/2 - T2	5/2 Wege Ventil - T2	Distribuidor 5/2 - T2	1
28	903 050 419	Embase ISO T2	Base ISO T2	ISO-Anschlussplatte	Base ISO T2	1
*31	903 050 516	Electrovannes 24V DC	Electrovalves, 24V DC	Elektroventil 24V DC	Electroválvulas 24V DC	x
32	903 050 519	Connecteur avec câble	Connector with cable	Spule mit Kabel	Conectador con cable	x
33	903 050 517	Embase	Base	Anschlussplatte	Base	x
34	903 050 518	Embase juxtaposable	Base	Anschlussplatte	Base	2
35	901 280 191	Interrupteur	Switch	Schalter	Interruptor	1

PARTIE PRODUIT / MIXING UNIT / MATERIALTEIL / PARTE PRODUCTO



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
37	903 220 116	Filtre à air	Air filter	Luftfilter	Filtro de aire	1
* 41a	155 660 078	Ensemble compteur (BASE) (voir détail)	Meter assembly (BASE) (see detail)	Volumenmessgerät kpl. (BASIS) (siehe Detail)	Conjunto contador (BASE) (ver detalle)	1
* 41b	155 660 079	Ensemble compteur (CATA) (voir détail)	Meter assembly (CATA) (see detail)	Volumenmessgerät kpl. (HÄRTER) (siehe Detail)	Conjunto contador (CATA) (ver detalle)	1
* 41c	NC / NS	Ensemble compteur (CATA) (voir détail)	Meter assembly (CATA) (see detail)	Volumenmessgerät kpl. (HÄRTER) (siehe Detail)	Conjunto contador (CATA) (ver detalle)	1
*44	903 160 510	Clapet anti retour inox	Non-return valve, stainless steel	Rückschlagventil, Edelstahl	Válvula anti-retorno inox	2
* 45a	155 528 000	Clapet 200 bar (BASE) (voir détail)	Valve, 200 bar / 2900 psi (BASE) (see detail)	Ventil 200 bar (BASIS) (siehe Detail)	Válvula 200 bar (BASE) (ver detalle)	1
* 45b	155 536 500	Clapet 200 bar (CATA) (inox 316 L - voir détail)	Valve, 200 bar / 2900 psi (CATA) (stainless steel 316 L - see detail)	Ventil 200 bar (HÄRTER) (Edelstahl 316 L - Siehe Detail)	Válvula 200 bar (CATA) (inox 316 L - ver detalle)	2
47	055 660 470	Bloc d'injection (inox 316 L)	Injection unit (stainless steel 316 L)	Injektions-Block (Edelstahl 316 L)	Bloque de inyección (inox 316 L)	1
49	055 660 055	Robinet pointeau inox	Needle valve, st. steel	Nadelventil, Edelstahl	Grifo aguja inox	2
*50	129 272 030	▪ Joint (les 10)	▪ Seal (pack of 10)	▪ Dichtung (Satz à 10 St.)	▪ Junta (bolsa de 10)	1
51	910 090 102	Gobelet gradué (650 ml)	Graduated cup (650 ml)	Messbecher (650 ml)	Copa graduada (650 ml)	2
52	906 050 613	Roulette	Wheel	Lenkrolle	Rueda	4
53	903 050 541	Electrovanne	Electrovalve	Elektroventil	Electroválvula	1
61	155 660 4xx / 155 660 5xx	Ensemble changement de teintes (cata) (inox 316 L)	Color changer assembly (cata) (stainless steel, 316 L)	Farbwechselblock (Härter) (Edelstahl 316 L)	Conjunto cambiador de tintes (cata) (inox 316 L)	1
62	155 660 75x	Ensemble changement de teintes (Base) (voir détail)	Color changer assembly (Base) (see detail)	Farbwechselblock (Basis) (Siehe Detail)	Conjunto cambiador de tintes (base) (ver detalle)	1
-	000 972 025	Raccord produit droit (M 1/4 NPT - M 1/2 JIC)	Straight fluid fitting (M 1/4 NPT - M 1/2 JIC)	Gewindenippel (AG 1/4 NPT - AG 1/2 JIC)	Racor recto producto (M 1/4 NPT - M 1/2 JIC)	x
-	905 210 502	Raccord produit droit (M 1/4 NPT - M 1/2 JIC) (inox 316 L)	Straight fluid fitting (M 1/4 NPT - M 1/2 JIC) (stainless steel 316 L)	Gewindenippel (AG 1/4 NPT - AG 1/2 JIC) (Edelstahl 316 L)	Racor recto producto (M 1/4 NPT - M 1/2 JIC) (inox 316 L)	x
-	905 160 218	Raccord produit tournant (M 1/4 NPT - F 1/2 JIC)	Swivel fluid fitting (M 1/4 NPT - F 1/2 JIC)	Drehgelenk (AG 1/4 NPT - IG 1/2 JIC)	Racor producto giratorio (M 1/4 NPT - H 1/2 JIC)	2
*-	050 450 651	Tuyau produit (Ø 4,8 mm, long. 0,6 m, raccords inox, 240 bar)	Fluid hose (3/16" dia, 0,6 m long, stainless steel hoses, 240 bar / 3481 psi)	Materialschlauch (Ø 4,8 mm, Länge: 0,6 m, Anschlüsse Edelstahl, 240 bar)	Tubería producto (Ø 4.8 mm, 0,6 m de largo, racores de inox, 240 bar)	3
*-	050 452 010	Tuyau CATA (PTFE, Ø 4,8 mm, long. 0,6 m, raccords inox, 240 bar)	CATA hose (PTFE, 3/16" dia, 0,6 m long, stainless steel hoses, 240 bar / 2481 psi)	Härtereschlauch (PTFE, Ø 4,8 mm, Länge: 0,6 m, Anschlüsse Edelstahl, 240 bar)	Tubería CATA (PTFE, Ø 4.8 mm, 0.6 m de largo, racores de inox, 240 bar)	1

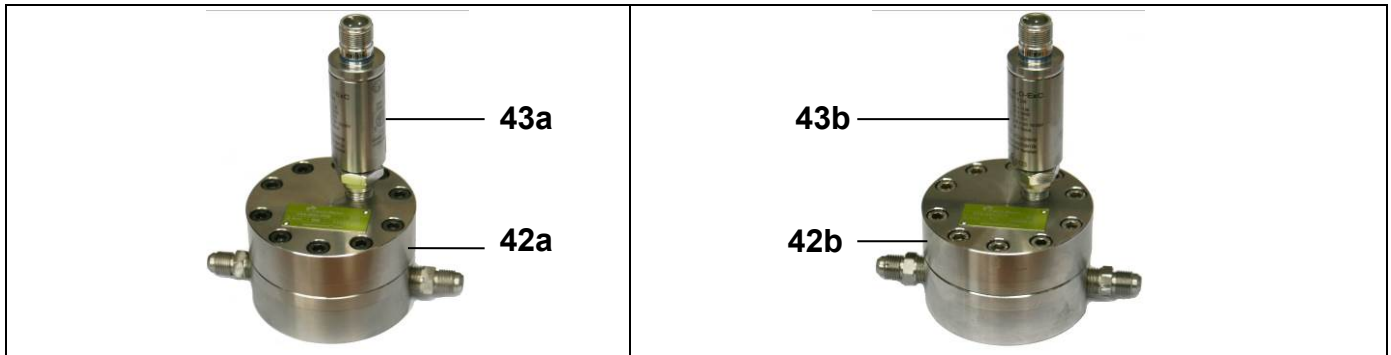
**DEBITMETRES ET CAPTEURS / FLOWMETERS AND SENSORS
MESSZELLEN UND SENSOREN / CAUDALÍMETROS Y CAPTADORES**

*Anciens débitmètres et capteurs / Former flowmeters and sensors
/ Alte Messzelle und Sensor / Caudalímetros y captadores anteriores*



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
* 41c	NC / NS	Ensemble compteur (CATA)	Meter assembly (CATA)	Volumenmessgerät kpl. (HÄRTER)	Conjunto contador (CATA)	1
42c	055 660 501	▪ Débitmètre (CATA) (inox 316 L)	▪ Flowmeter (CATA) (stainless steel, 316 L)	▪ Messzelle (HÄRTER) (Edelstahl 316L)	▪ Caudalímetro (CATA) (inox 316 L)	1
43c	910 060 102	▪ Capteur	▪ Sensor	▪ Sensor	▪ Captador	1

**Nouveaux débitmètres et capteurs / New flowmeters and sensors
/ Neue Messzellen und Sensoren / Nuevos caudalímetros y captadores**



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
* 41a	155 660 078	Ensemble compteur (BASE)	Meter assembly (BASE)	Volumenmessgerät kpl. (BASIS)	Conjunto contador (BASE)	1
* 42a	155 660 041	▪ Débitmètre (BASE)	▪ Flowmeter (BASE)	▪ Messzelle (BASIS)	▪ Caudalímetro (BASE)	1
-	155 660 082	▪ ▪ Joint (les 3)	▪ ▪ Seal (pack of 3)	▪ ▪ Dichtung (Satz à 3 St.)	▪ ▪ Junta (bolsa de 3)	1
*- 43a	155 660 086	▪ Ensemble capteur	▪ Sensor assembly	▪ Sensor Einheit	▪ Conjunto captador	1
* 43a	910 060 106	▪ ▪ Capteur	▪ ▪ Sensor	▪ ▪ Sensor	▪ ▪ Captador	1
-	NC / NS	▪ ▪ Connecteur	▪ ▪ Connector	▪ ▪ Anschluss	▪ ▪ Conectador	1
* 41b	155 660 079	Ensemble compteur (CATA)	Meter assembly (CATA)	Volumenmessgerät kpl. (HÄRTER)	Conjunto contador (CATA)	1
* 42b	155 660 042	▪ Débitmètre (CATA) (inox 316 L)	▪ Flowmeter (CATA) (stainless steel, 316 L)	▪ Messzelle (HÄRTER) (Edelstahl 316L)	▪ Caudalímetro (CATA) (inox 316 L)	1
-	155 660 082	▪ ▪ Joint (les 3)	▪ ▪ Seal (pack of 3)	▪ ▪ Dichtung (Satz à 3 St.)	▪ ▪ Junta (bolsa de 3)	1
*- 43b	155 660 086	▪ Ensemble capteur	▪ Sensor assembly	▪ Sensor kpl.	▪ Conjunto captador	1
* 43b	910 060 106	▪ ▪ Capteur	▪ ▪ Sensor	▪ ▪ Sensor	▪ ▪ Captador	1
-	NC / NS	▪ ▪ Connecteur	▪ ▪ Connector	▪ ▪ Anschluss	▪ ▪ Conectador	1

Nota :	A partir d'août 2014 de nouveaux débitmètres et capteurs seront installés sur nos machines. Il y aura une phase de transition pendant laquelle il est possible que vous disposiez des anciens débitmètres et capteurs sur la partie CATA et des nouveaux débitmètres et capteurs sur la partie BASE. Cette combinaison d'éléments n'altère pas la qualité de dosage ni la fiabilité de l'équipement. Si vous possédez une machine dont le numéro de série est antérieur à 14Y1139 et que vous désirez remplacer l'un de vos débitmètres ou de vos capteurs merci de vous référer au document 573.705.070.
Nota :	From August 2014 new flowmeters and sensors will be installed on our machines. There will be a transition phase during which you may have the former flowmeters and sensors on the CATA part and of the new flowmeters and sensors on the BASE part. This combination of elements affects neither the mixing ratio quality nor the equipment reliability. If you have a machine with reference number is prior to 14Y1139 and if you want to replace one of your flowmeters or sensors, please refer to the document 573.705.070.
Anmerkung :	Seit August 2014 werden in unsere Anlagen neue Messzellen und Sensoren eingebaut. In einer Übergangsphase kann es sein, dass an der Maschine alte und neue Volumenmessgeräte nebeneinander eingebaut sind. Dies hat keinerlei Einfluss auf die Mischqualität und Zuverlässigkeit der Anlage. Wenn Sie eine Maschine mit der Seriennummer kleiner als 14Y1139 haben, und Sie wollen ein Messzelle oder Sensor ersetzen, dann schauen Sie im Dokument 573.705.070 nach.
Nota :	A partir de Agosto de 2014, se instalarán nuevos caudalímetros y captadores en nuestras máquinas. Durante una fase de transición, es posible encontrar anteriores caudalímetros y captadores en la parte CATA y nuevos en la parte BASE. La combinación de los dos no afecta ni la calidad de dosificación ni la fiabilidad del equipo. Si tiene una máquina cuyo número de serie es anterior a 14Y1139 y si desea cambiar uno de sus caudalímetros o captadores por favor consulte el documento 573.705.070.

<p>CLAPET PILOTÉ PILOTED VALVE VENTIL VÁLVULA PILOTADA</p> <p>200 bar / 2900 psi</p> <p>Ind. 45a → # 155.528.000</p> <p>Ind. 45b → # 155.536.500 (inox 316 L)</p>	
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Clapet / Valve / Ventil / Válvula # 155.528.000

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
68	055 528 001	Corps	Body	Körper	Cuerpo	1
*69	155 535 315	Vanne AIRMIX 200 bar (voir Doc. 573.188.050)	AIRMIX valve, 200 bar / 2900 psi (refer to Doc. 573.188.050)	AIRMIX-Ventil 200 bar (siehe Doc. 573.188.050)	Válvula AIRMIX 200 bar (consultar Doc. 573.188.050)	1
-	055 528 002	Bouchon pour clapet	Plug, valve	Blindstopfen für Ventil	Tapón para válvula	1

Clapet / Valve / Ventil / Válvula # 155.536.500

68	055 536 501	Corps (inox 316 L)	Body (stainless steel, 316 L)	Körper (Edelstahl 316 L)	Cuerpo (inox 316 L)	1
*69	155 536 300	Vanne AIRMIX 200 bar (inox 316 L) (voir Doc. 573.188.050)	AIRMIX valve, 200 bar / 2900 psi (stainless steel, 316 L) (refer to Doc. 573.188.050)	AIRMIX-Ventil 200 bar (Edelstahl 316L) (siehe Dok. 573.188.050)	Válvula AIRMIX 200 bar (inox 316 L) (consultar Doc. 573.188.050)	1
-	055 528 003	Bouchon pour clapet (inox 316 L)	Plug, valve (stainless steel, 316 L)	Blindstopfen für Ventil (Edelstahl 316 L)	Tapón para válvula (inox 316 L)	1

**CTM : ENSEMBLE CHANGEUR DE TEINTES / COLOR CHANGER ASSEMBLY
FARBWECHSELBLOCK / CONJUNTO CAMBIADOR DE TINTES
(AIRMIX ® 200 bar / 2900 psi)**

CYCLOMIX™ MULTI PH (# 155.660.513)

Ind.		# CTM	Pièces / Parts / Teile / Partes			
			Module / Modul / Modulo	Module / Modul / Modulo	Bride / Flange / Flansch / Brida	Filtre / Filter / Filtro
62	Base / Basis 3B + 1S	155.660.752	1 (# 155.535.350)	1 (# 155.535.450)	1 (# 155.535.500)	6 (# 155.010.100)
61	Cata / Härter 1C + 1S	155.660.465 (inox 316 L)	1 (# 155.536.200)	-	1 (# 155.536.410)	2 (# 155.010.100)

CYCLOMIX™ MULTI PH (# 155.660.515)

Ind.		# CTM	Pièces / Parts / Teile / Partes			
			Module / Modul / Modulo	Module / Modul / Modulo	Bride / Flange / Flansch / Brida	Filtre / Filter / Filtro
62	Base / Basis 5B + 1S	155.660.753	1 (# 155.535.350)	2 (# 155.535.450)	1 (# 155.535.500)	6 (# 155.010.100)
61	Cata / Härter 1C + 1S	155.660.465 (inox 316 L)	1 (# 155.536.200)	-	1 (# 155.536.410)	2 (# 155.010.100)

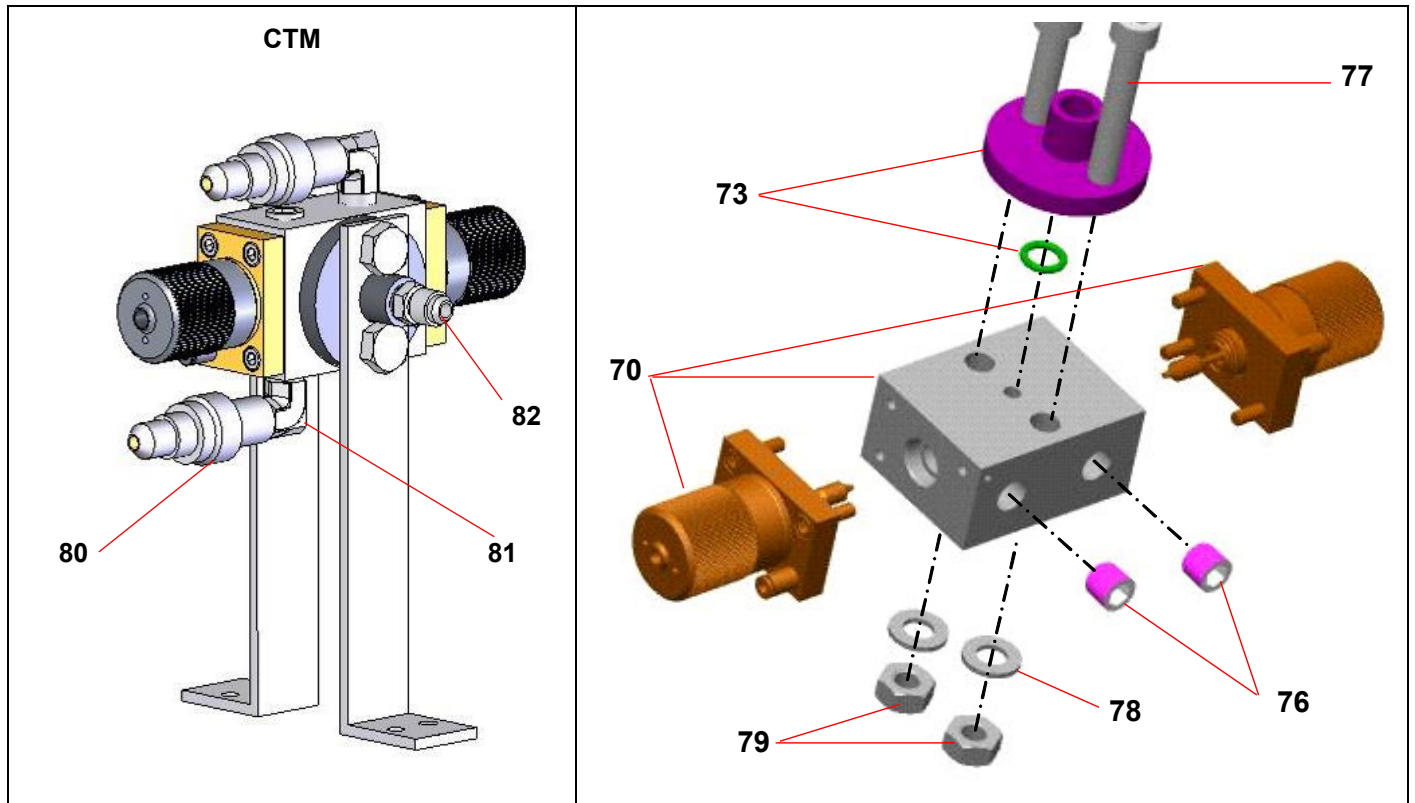
CYCLOMIX™ MULTI PH (# 155.660.517)

Ind.		# CTM	Pièces / Parts / Teile / Partes			
			Module / Modul / Modulo	Module / Modul / Modulo	Bride / Flange / Flansch / Brida	Filtre / Filter / Filtro
62	Base / Basis 7B + 1S	155.660.754	1 (# 155.535.350)	3 (# 155.535.450)	1 (# 155.535.500)	6 (# 155.010.100)
61	Cata / Härter 1C + 1S	155.660.465 (inox 316 L)	1 (# 155.536.200)	-	1 (# 155.536.410)	2 (# 155.010.100)

B : Base / Basis

C : Cata / Härter

S : solvant / solvent / Verdünnung / disolvente



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*70	-	Module d'extrémité AIRMIX 200 bar (voir Doc. 573.187.050)	End module 200 bar / 2900 psi (refer to Doc. 573.187.050)	Unteres Modul 200 bar (siehe Dok. 573.187.050)	Modulo AIRMIX de extremidad 200 bar (consultar Doc. 573.187.050)	1
*73	-	Bride de sortie équipée	Flange assembly, outlet material	Ausgangsflansch, kpl	Brida de salida equipada	1
76	906 314 211	Bouchon 1/4 "	Plug, model 1/4"	Blindstopfen 1/4"	Tapón, tipo 1/4"	2
77	-	Ensemble 2 tirants (voir Doc. 573.187.050)	Set of 2 tie-rods (refer to Doc. 573.187.050)	Verbindungsbolzen (Satz mit 2 Stück) (siehe Dok. 573.187.050)	Conjunto de 2 tirantes (consultar Doc. 573.187.050)	1

*80	155 010 100	Filtre Airmix® en ligne (voir Doc. 573.253.050)	Airmix® filter in-line (refer to Doc. 573.253.050)	Airmix®-In Line Filter (siehe Dok. 573.253.050)	Filtro Airmix® en línea (consultar Doc. 573.253.050)	2
*-	129 609 908	▪ Tamis n°6 (les 5)	▪ Screen n°6 (pack of 5)	▪ Sieb Nr 6 (Satz à 5 St.)	▪ Tamiz n°6 (bolsa de 5)	1
81	905 210 602	Raccord coudé inox (M 1/4 NPT - M 1/2 JIC)	Elbow fitting, stainless steel (male 1/4 NPT - male # 5 JIC)	Winkelnippel, Edelstahl (AG 1/4 NPT - AG 1/2 JIC)	Racor acodado inox (M 1/4 NPT - M 1/2 JIC)	2
82	000 972 025	Raccord produit droit (BASE) (M 1/4 NPT - M 1/2 JIC)	Straight fluid fitting (BASE) (M 1/4 NPT - # 5 JIC)	Gewindenippel (BASIS) (AG 1/4 NPT - AG 1/2 JIC)	Racor recto producto (BASE) (M 1/4 NPT - M 1/2 JIC)	1
82	905 210 502	Raccord produit droit (CATA) (M 1/4 NPT - M 1/2 JIC) (inox 316 L)	Straight fluid fitting (CATA) (M 1/4 NPT - # 5 JIC) (stainless steel, 316L)	Gewindenippel (HÄRTER) (AG 1/4 NPT - AG 1/2 JIC) (Edelstahl 316L)	Racor recto producto (CATA) (M 1/4 NPT - M 1/2 JIC) (inox 316L)	x

* 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>AUTO-WASH # 155.660.300</p>			<p>BOITIER DE COMMANDE A DISTANCE REMOTE CONTROL BOX FERNSTEUERUNGSEINHEIT ARMARIO DE MANDO A DISTANCIA</p> <p># 155.660.840</p>
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Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	055 660 550	Kit fibre optique	Fiber optic kit	Lichtwellenleitersatz	Kit fibra óptica	1
-	055 660 714	Kit afficheur	Display unit kit	Display Einheit	Kit visualizador	1
-	055 660 074	Kit electrovanne	Electrovalve	Elektroventilsatz	Kit electroválvula	1

Nota : # 055 660 714 : Kit afficheur pour machines dont le numéro de série est < à 13Y1185.

Nota : # 055 660 714 : Display unit kit for machines wich serial number < to 13Y1185.

Anmerkung : # 055 660 714 : Display Einheit für Maschinen ab Serien Nummer < 13Y1185.

Nota : # 055 660 714 : Kit electroválvula para máquina cuyo número de série es < a 13Y1185.

Doc. 573.253.050 Date/Datum/Fecha : 10/02/12 Annule/Cancel/ Ersetzt/Anula : 06/01/04	Modif. /Änderung : Mise à jour / Update / Aktualisierung / Actualización	Pièces de rechange Spare parts list Ersatzteilliste Piezas de repuesto
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FILTRE AIRMIX® INOX EN LIGNE	AIRMIX® IN LINE FILTER - STAINLESS STEEL
AIRMIX® IN LINE FILTER - EDELSTAHL	FILTRO AIRMIX® EN LÍNEA - INOX

A - # 155.010.000	B - # 155.010.100
MM 1/2 JIC / MM # 5 JIC AG 1/2 JIC / AG 1/2 JIC	MF 1/2 JIC / MF # 5 JIC AG 1/2 JIC – IG 1/2 JIC / MH 1/2 JIC

**Le filtre se monte à la crosse du pistolet (modèle B) ou entre deux tuyaux (modèle A).
 Pression maximum = 200 bar.**

**The filter fits on the gun handle (model B) or between 2 hoses (model A).
 Maximum fluid pressure : 200 bar = 2900 psi.**

Dieser Filter kann an den Pistoleneingang aufgeschraubt werden (Modell B) oder zwischen zwei Schläuche montiert werden (Modell A). Maximaler Arbeitsdruck: 200 bar

**El filtro se monta en la empuñadura de la pistola (modelo MH 1/2 JIC - esquema B) o entre las 2 tuberías (modelo MM 1/2 JIC - esquema A).
 Presión máxima = 200 bar.**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
		Raccord support filtre :	Fitting, mounting bracket	Filteroberteil :	Racor soporte filtro :	1
1	055.010.001	MM 1/2 JIC (Mod. A)	Double male, 1/2 JIC (Mod. A)	AG 1/2 JIC (Mod. A)	MM 1/2 JIC (Mod. A)	1
1	055.010.101	MF 1/2 JIC (Mod. B)	MF 1/2 JIC (Mod. B)	AG 1/2 JIC - IG 1/2 JIC (Mod. B)	MH 1/2 JIC (Mod. B)	1
2	029.520.372	Corps de filtre	Filter body	Filterkörper	Cuerpo de filtro	1
3	029.520.306	Ecrou	Nut	Mutter	Tuerca	1
* 5	129.529.918	Joint PTFE (les 10)	Seal, PTFE (pack of 10)	PTFE-Dichtung (Satz à 10 St.)	Junta PTFE (bolsa de 10)	1
6a	029.520.310	Support de tamis	Screen support		Soporte de tamiz	1
* 6b	129.609.908	Tamis n° 6 (168 µ) (les 5)	Screen n° 6 (168 µ / 85 mesh) (pack of 5)	Sieb Nr. 6 (168 µ) (Satz à 5 St.)	Tamiz n° 6 (168 µ) (bolsa de 5)	1

		OPTION	OPTIONAL	OPTION	OPCIÓN	
* 6b	129.609.907	Tamis n° 4 (99 µ) (les 5)	Screen n° 4 (99 µ / 140 mesh) (pack of 5)	Sieb Nr. 4 (99 µ) (Satz à 5 St.)	Tamiz n° 4 (99 µ) (bolsa de 5)	1
* 6b	129.609.909	Tamis n° 12 (280µ) (les 5)	Screen n° 12 (280 µ / 55 mesh) (pack of 5)	Sieb Nr. 12 (280 µ) (Satz à 5 St.)	Tamiz n° 12 (280 µ) (Bolsa de 5)	1

* Pièces de maintenance préconisées tenues en stock.

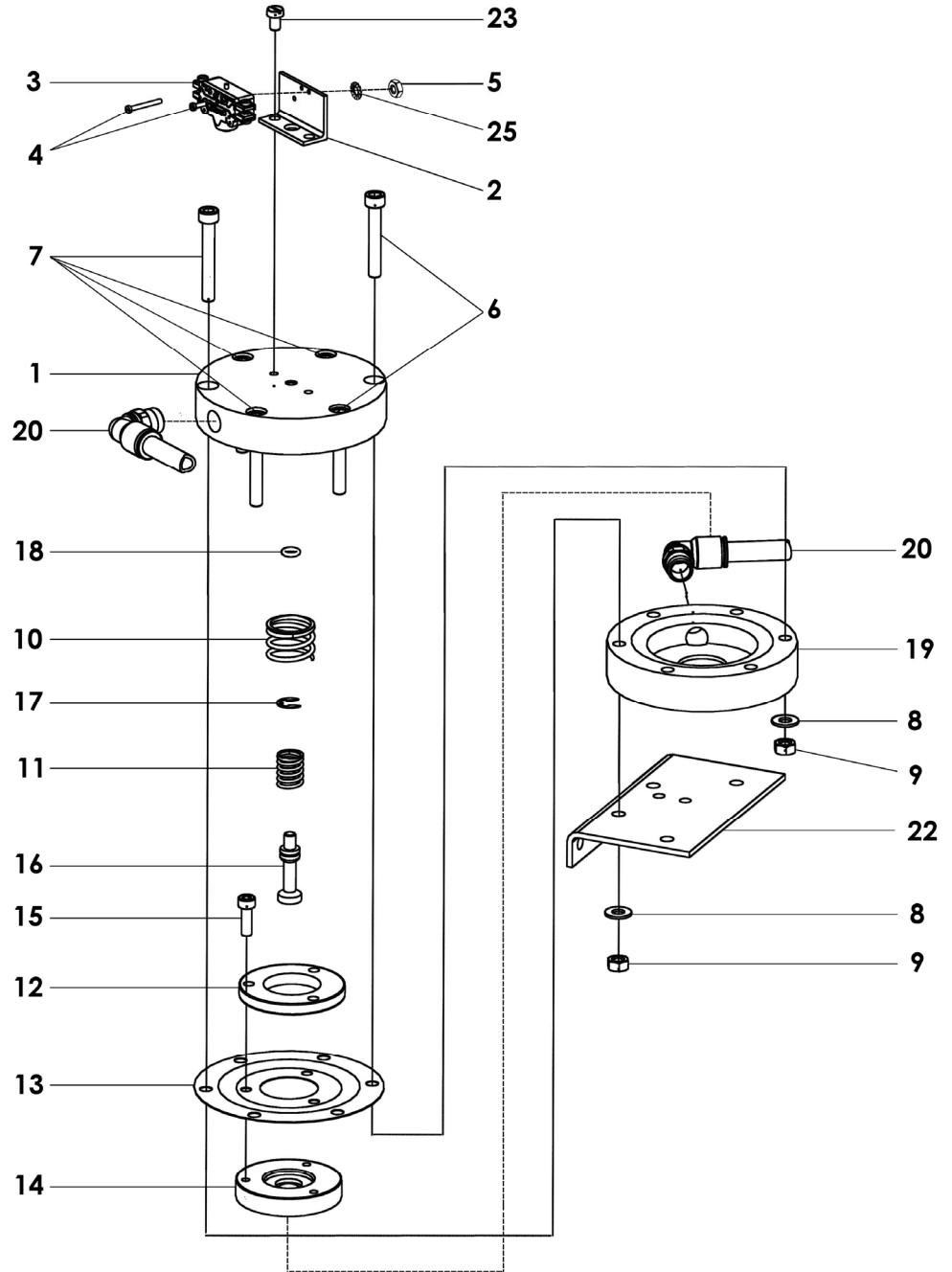
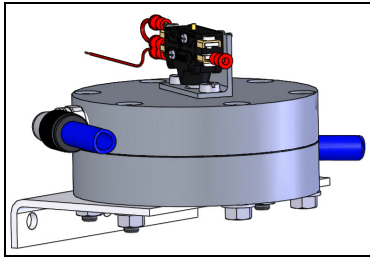
* Preceding the index number denotes a suggested spare part.

* Bezeichnete Teile sind empfohlene Ersatzteile.

* Piezas de mantenimiento preventivas a tener en stock.

Doc. 573.320.050 Date/Datum/Fecha : 01/07/14 Annule/Cancel/ Ersetzt/Anula 13/05/11	Modif. / Änderung : + Ind. / Pos 25	Pièces de rechange Spare parts list Ersatzteilliste Piezas de repuesto
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DEBISTAT	FLOW-SWITCH	#
FLIEßSCHALTER	DEBISTAT	148.180.100



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
1	049 221 301	Corps	Body	Körper	Cuerpo	1
2	049 221 309	Support	Holder	Halterung	Soporte	1
*3	901 141 201	Mini-rupteur	Microswitch	Unterbrecher	Mini-ruptor	1
4	933 061 267	Vis CM 2x20	Screw, CM 2x20	Schraube, 2x20	Tornillo CM 2x20	2
5	953 010 006	Ecrou HM 2	Nut, HM 2	Mutter, M2	Tuerca HM 2	2
6	933 151 497	Vis CHc M 6x40	Screw, CHc M 6x40	Schraube, M 6x40	Tornillo CHc M 6x40	2
7	933 151 523	Vis CHc M 6x45	Screw, CHc M 6x45	Schraube, M 6x45	Tornillo CHc M 6x45	4
8	963 040 016	Rondelle MN 6	Washer, MN 6	Unterlegscheibe, M6	Arandela MN 6	6
9	953 010 016	Ecrou HM 6	Nut, HM 6	Mutter, M6	Tuerca HM 6	6
*10	050 312 501	Ressort de membrane	Spring, diaphragm	Feder (Membran)	Muelle de membrana	1
*11	050 312 302	Ressort de clapet	Spring, valve	Feder (Ventil)	Muelle de válvula	1
12	049 221 305	Rondelle	Washer	Unterlegscheibe	Arandela	1
*13	049 220 803	Membrane	Diaphragm	Membrane	Membrana	1
14	049 221 304	Siège	Seat	Sitz	Asiento	1
15	932 151 194	Vis CHc M 5x15	Screw, CHc M 5x15	Mutter, M 5x15	Tornillo CHc M 5x15	3
*16	049 221 303	Clapet	Valve	Ventil	Válvula	1
17	102 201 914	Circlips Ø 10 (les 10)	Ring retaining Ø 10 / 13.32" (pack of 10)	Sichersring, Ø 10 mm (Satz à 10 Stück)	Circlips Ø 10 (bolsa de 10)	1
18	909 130 305	Bague R 5	Ring, R 5	O-Ring	Anillo R 5	1
19	049 221 302	Couvercle	Cover	Deckel	Tapa	1
20	905 120 913	Raccord coudé pour tuyau 8x10	Elbow fitting for hose 8x10 / 5/16" x 13/32"	Winkelnippel für Schlauch 8x10 mm	Racor acodado para tubería 8x10	2
21	527 343 654	Fil 3 conducteur lg. 0,50 m	Three wire lead 0.50 m / 20" lg.	Anschlußkabel, Länge 0,5 m	Hilo 3 conductores 0.50 m de largo	1
22	048 180 102	Support	Bracket, support	Halterung	Soporte	1
23	933 061 120	Vis CM 5x8	Screw, CM 5x8	Schraube, M 5x8	Tornillo CM 5x8	2
25	963 300 006	Rondelle AZ2	Washer AZ2	Unterlegscheibe AZ2	Arandela AZ2	2

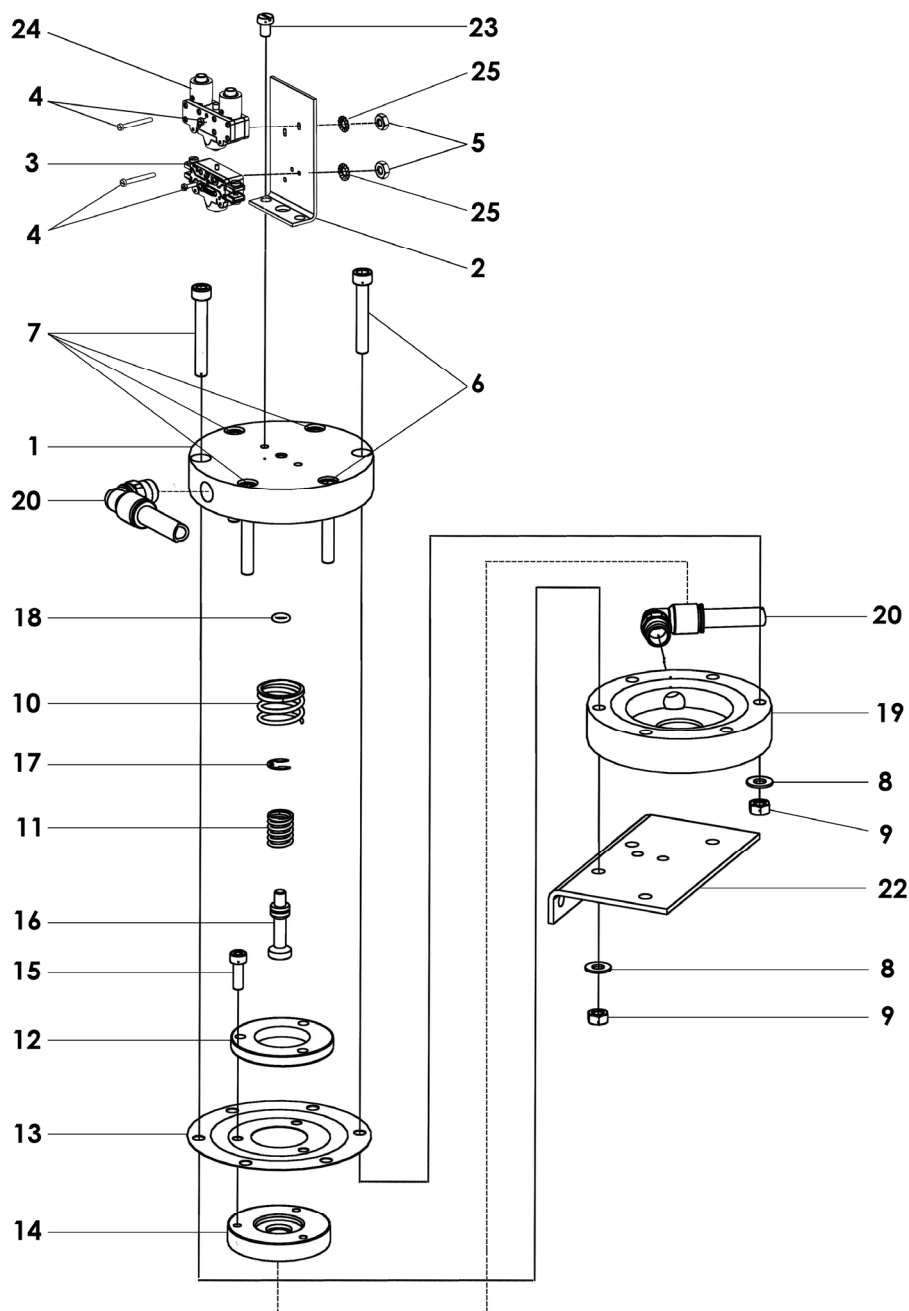
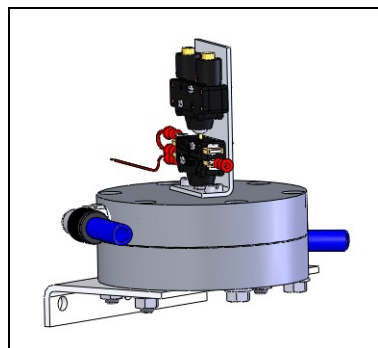
* Pièces de maintenance préconisées

* Preceding the index number denotes a suggested spare part.

* Bezeichnete Teile sind empfohlene Ersatzteile.

* Piezas de mantenimiento preventivas.

DEBISTAT (pour boîtier STD 9 B)	FLOW-SWITCH (for STD 9 B power supply unit)	#
FLIEßSCHALTER (für Steuereinheit STD 9 B)	DEBISTAT (para unidad de control STD 9 B)	148.200.250



Pièces spécifiques - Specific parts - Spezifische Teile - Partes específicas

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
2	048 200 251	Support (pour capteur et mini-rupteur)	Holder (for air sensor and microswitch)	Halterung (für Schalter und Unterbrecher)	Soporte (para captador y mini-ruptor)	1
24	903 050 444	Capteur pneumatique	Air sensor	Pneumatikschalter	Captador neumático	1
25	963 300 006	Rondelle AZ2	Washer AZ2	Unterlegscheibe AZ2	Arandela AZ2	4

**REPLACEMENT
REPLACEMENT
AUSTAUCH
CAMBIO**

CYCLOMIX™
REPLACEMENT DES DEBITMETRES ET CAPTEURS
FLOWMETERS AND SENSORS REPLACEMENT
AUSTAUCH DES MESSZELLEN UND SENSOREN
CAMBIO DE LOS CAUDALÍMETROS

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



		#
CYCLOMIX™ MULTI	↻ 3	155.660.81X
CYCLOMIX™ MULTI PH	↻ 4 - 5	155.660.51X
CYCLOMIX™ MICRO, MICRO+ & MICRO+ PH	↻ 6 - 7	155.660.9XX
CYCLOMIX™ MICRO+ PH+	↻ 7	NC / NS
REPLACEMENT DES PIECES REPLACEMENT OF THE PARTS AUSTAUCH DER TEILE CAMBIO DE LAS PIEZAS	↻ 8 - 10	-

A partir d'août 2014 de nouveaux débitmètres et capteurs seront installés sur nos machines.
Il y aura une phase de transition pendant laquelle il est possible que vous disposiez des anciens débitmètres et capteurs sur la partie CATA et des nouveaux débitmètres et capteurs sur la partie BASE. Cette combinaison d'éléments n'altère ni la qualité de dosage ni la fiabilité de l'équipement.

From August 2014 new flowmeters and sensors will be installed on our machines.
There will be a transition phase during which you may have the former flowmeters and sensors on the CATA part and the new flowmeters and sensors on the BASE part. This combination of elements affects neither the mixing ratio quality nor the equipment reliability.

Seit August 2014 werden in unsere Anlagen neue Messzellen und Sensoren eingebaut.
In einer Übergangsphase kann es sein, dass an der Maschine alte und neue Volumenmessgeräte nebeneinander eingebaut sind. Dies hat keinerlei Einfluss auf die Mischqualität und Zuverlässigkeit der Anlage.

A partir de Agosto de 2014, se instalarán nuevos caudalímetros y captadores en nuestras máquinas.
Durante una fase de transición, es posible encontrar anteriores caudalímetros y captadores en la parte CATA y nuevos en la parte BASE. La combinación de los dos no afecta ni la calidad de dosificación ni la fiabilidad del equipo.

CYCLOMIX™ MULTI



**Se reporter à / Refer to / Siehe / Consultar
doc. / dok. 573.344.050**

*Anciens débitmètres et capteurs / Former flowmeter and sensor
/ Alte Messzellen und Sensoren / Caudalímetros y captadores anteriores*



**Attention ce débitmètre n'est plus commercialisé (pour machine dont le numéro de série est antérieur à 14Y1124)
/ Caution this flowmeter is not serviceable any more (for machine which part number is prior to 14Y1124)
/ Achtung dieses Messzelle ist nicht mehr lieferbar (für Maschine mit der Seriennummer kleiner als 14Y1124)
/ Cuidado Este caudalímetro no se suministra más (para máquina cuyo número de serie es anterior a 14Y1124)**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	155 660 011	Ensemble compteur	Meter assembly	Volumenmessgerät kpl.	Conjunto contador	2
42a	055 660 001	▪ Débitmètre	▪ Flowmeter	▪ Messzelle	▪ Caudalímetro	2
-	109 100 106	▪ ▪ Joint (les 2)	▪ ▪ Seal (pack of 2)	▪ ▪ Dichtung (Satz à 2)	▪ ▪ Junta (bolsa de 2)	1
43a	910 060 102	▪ Capteur	▪ Sensor	▪ Sensor	▪ Captador	2

**Nouveaux débitmètres et capteurs / New flowmeter and sensor
/ Neue Messzellen und Sensoren / Nuevos caudalímetros y captador**



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	155 660 078	Ensemble compteur	Meter assembly	Volumenmessgerät kpl.	Conjunto contador	2
42	155 660 041	▪ Débitmètre	▪ Flowmeter	▪ Messzelle	▪ Caudalímetro	1
-	155 660 082	▪ ▪ Joint (x 1)	▪ ▪ Seal (pack of 1)	▪ ▪ Dichtung (1 St.)	▪ ▪ Junta (bolsa de 1)	1
-	155 660 086	▪ Ensemble capteur	▪ Sensor assembly	▪ Sensor Einheit	▪ Conjunto captador	1
43	910 060 106	▪ ▪ Capteur	▪ ▪ Sensor	▪ ▪ Sensor	▪ ▪ Captador	1
-	NC / NS	▪ ▪ Connecteur	▪ ▪ Connector	▪ ▪ Anschluss	▪ ▪ Conector	1

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	155 660 165	Pochette de maintenance débitmètre (ind. 42 + joint)	Servicing kit - Flowmeter (ind. 42 + seal)	Servicekit für Messzelle (Pos. 42 + Dichtung)	Bolsa de mantenimiento caudalímetro (ind. 42 + junta)	1

CYCLOMIX™ MULTI PH



**Se reporter à / Refer to / Siehe / Consultar
doc. / dok. 573.358.050**

**Anciens débitmètres et capteurs / Former flowmeters and sensors
/ Alte Messzellen und Sensoren / Caudalímetros y captadores anteriores**

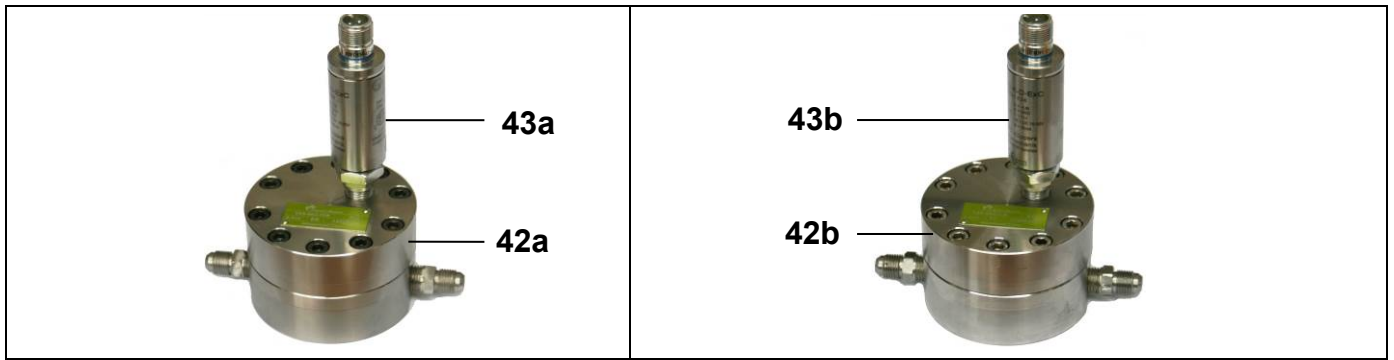


**Attention ce débitmètre n'est plus commercialisé (pour machine dont le numéro de série est antérieur à 14Y1124)
/ Caution this flowmeter is not serviceable any more (for machine which part number is prior to 14Y1124)
/ Achtung dieses Messzelle ist nicht mehr lieferbar (für Maschine mit der Seriennummer kleiner als 14Y1124)
/ Cuidado Este caudalímetro no se suministra más (para máquina cuyo número de serie es anterior a 14Y1124)**

**Pour machine dont le numéro de série est antérieur à 14Y1139
/ For machine which part number is prior to 14Y1139
/ Für Maschine mit der Seriennummer kleiner als 14Y1139
/ Para máquina cuyo número de serie es anterior a 14Y1139**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	155 660 011	Ensemble compteur (BASE)	Meter assembly (BASE)	Volumenmessgerät kpl. (BASIS)	Conjunto contador (BASE)	2
42d	055 660 001	▪ Débitmètre (BASE)	Flowmeter (BASE)	▪ Messzelle (BASIS)	▪ Caudalímetro (BASE)	1
-	109 100 106	▪ ▪ Joint (les 2)	▪ ▪ Seal (pack of 2)	▪ ▪ Dichtung (Satz à 2)	▪ ▪ Junta (bolsa de 2)	1
43d	910 060 102	▪ Capteur	▪ Sensor	▪ Sensor	▪ Captador	1
-	NC / NS	Ensemble compteur (CATA)	Meter assembly (CATA)	Volumenmessgerät kpl. (HÄRTER)	Conjunto contador (CATA)	1
42c	055 660 501	▪ Débitmètre (CATA) (inox 316 L)	▪ Flowmeter (CATA) (stainless steel, 316 L)	▪ Messzelle (HÄRTER) (Edelstahl 316L)	▪ Caudalímetro (CATA) (inox 316 L)	1
43c	910 060 102	▪ Capteur	▪ Sensor	▪ Sensor	▪ Captador	2

**Nouveaux débitmètres et capteurs / New flowmeters and sensors
/ Neue Messzellen und Sensoren / Nuevos caudalímetros y captadores**



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	155 660 078	Ensemble compteur (BASE)	Meter assembly (BASE)	Volumenmessgerät kpl. (BASIS)	Conjunto contador (BASE)	1
42a	155 660 041	▪ Débitmètre (BASE)	▪ Flowmeter (BASE)	▪ Messzelle (BASIS)	▪ Caudalímetro (BASE)	1
-	155 660 082	▪ ▪ Joint (x 1)	▪ ▪ Seal (pack of 1)	▪ ▪ Dichtung (1 St.)	▪ ▪ Junta (bolsa de 1)	1
-	155 660 086	▪ Ensemble capteur	▪ Sensor assembly	▪ Sensor Einheit.	▪ Conjunto captador	1
43a	910 060 106	▪ ▪ Capteur	▪ ▪ Sensor	▪ ▪ Sensor	▪ ▪ Captador	1
-	NC / NS	▪ ▪ Connecteur	▪ ▪ Connector	▪ ▪ Anschluss	▪ ▪ Conectador	1
-	155 660 079	Ensemble compteur (CATA)	Meter assembly (CATA)	Volumenmessgerät kpl. (HÄRTER)	Conjunto contador (CATA)	1
42b	155 660 042	▪ Débitmètre (CATA) (inox 316 L)	▪ Flowmeter (CATA) (stainless steel, 316 L)	▪ Messzelle (HÄRTER) (Edelstahl 316L)	▪ Caudalímetro (CATA) (inox 316 L)	1
-	155 660 082	▪ ▪ Joint (x 1)	▪ ▪ Seal (pack of 1)	▪ ▪ Dichtung (1 St.)	▪ ▪ Junta (bolsa de 1)	1
-	155 660 086	▪ Ensemble capteur	▪ Sensor assembly	▪ Sensor Einheit	▪ Conjunto captador	1
43b	910 060 106	▪ ▪ Capteur	▪ ▪ Sensor	▪ ▪ Sensor	▪ ▪ Captador	1
-	NC / NS	▪ ▪ Connecteur	▪ ▪ Connector	▪ ▪ Anschluss	▪ ▪ Conectador	1



Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	155 660 165	Pochette de maintenance débitmètre (ind. 42a + joint)	Servicing kit - Flowmeter (ind. 42a + seal)	Servicekit für Messzelle (Pos. 42a + Dichtung)	Bolsa de mantenimiento caudalímetro (ind. 42a + junta)	1
*	155 660 166	Pochette de maintenance débitmètre (ind. 42b+ joint)	Servicing kit - Flowmeter (ind. 42b + seal)	Servicekit für Messzelle (Pos. 42b + Dichtung)	Bolsa de mantenimiento caudalímetro (ind. 42b + junta)	1

CYCLOMIX™ MICRO - CYCLOMIX™ MICRO+ - CYCLOMIX™ MICRO+ PH - CYCLOMIX™ MICRO+ PH+



**Se reporter à / Refer to / Siehe / Consultar
doc. / dok. 573.359.050**

*Anciens débitmètres et capteurs / Former flowmeters and sensors
/ Alte Messzellen und Sensoren / Caudalímetros y captadores anteriores*

 <p>14e & 14d</p> <p>12e & 12d</p>	 <p>14e & 14b</p> <p>12e & 12b</p>
<p>Attention ce débitmètre n'est plus commercialisé (pour machine dont le numéro de série est antérieur à 14Y1124) <i>/ Caution this flowmeter is not serviceable any more (for machine which part number is prior to 14Y1124)</i> <i>/ Achtung dieses Messzelle ist nicht mehr lieferbar (für Maschine mit der Seriennummer kleiner als 14Y1124)</i> <i>/ Cuidado Este caudalímetro no se suministra más (para máquina cuyo número de serie es anterior a 14Y1124)</i></p>	<p>Pour machine dont le numéro de série est antérieur à 14Y1139 <i>/ For machine which part number is prior to 14Y1139</i> <i>/ Für Maschine mit der Seriennummer kleiner als 14Y1139</i> <i>/ Para máquina cuyo número de serie es anterior a 14Y1139</i></p>

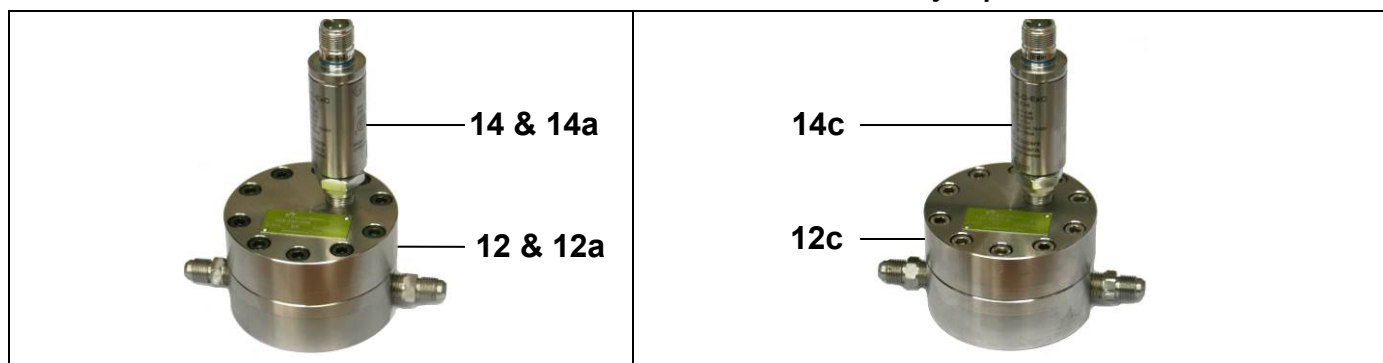
⇒ **CYCLOMIX™ MICRO & CYCLOMIX™ MICRO+**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	155 660 011	Ensemble compteur	Meter assembly	Volumenmessgerät kpl.	Conjunto contador	2
12e	055 660 001	▪ Débitmètre	▪ Flowmeter	▪ Messzelle	▪ Caudalímetro	1
-	109 100 106	▪ ▪ Joint (les 2)	▪ ▪ Seal (pack of 2)	▪ ▪ Dichtung (Satz à 2)	▪ ▪ Junta (bolsa de 2)	1
14e	055 660 002	▪ Capteur	▪ Sensor	▪ Sensor	▪ Captador	1

⇒ **CYCLOMIX™ MICRO+ PH**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	155 660 011	Ensemble compteur (BASE)	Meter assembly (BASE)	Volumenmessgerät kpl. (BASIS)	Conjunto contador (BASE)	1
12d	055 660 001	▪ Débitmètre (BASE)	▪ Flowmeter (BASE)	▪ Messzelle (BASE)	▪ Caudalímetro (BASE)	1
-	109 100 106	▪ ▪ Joint (les 2)	▪ ▪ Seal (pack of 2)	▪ ▪ Dichtung (Satz à 2)	▪ ▪ Junta (bolsa de 2)	1
14d	055 660 002	▪ Capteur	▪ Sensor	▪ Sensor	▪ Captador	1
-	NC / NS	Ensemble compteur (CATA)	Meter assembly (CATA)	Volumenmessgerät kpl. (HÄRTER)	Conjunto contador (CATA)	1
12b	055 660 501	▪ Débitmètre (CATA) (inox 316 L)	▪ Flowmeter (CATA) (stainless steel, 316 L)	▪ Messzelle (HÄRTER) (Edelstahl 316 L)	▪ Caudalímetro (CATA) (inox 316 L)	1
14b	055 660 002	▪ Capteur	▪ Sensor	▪ Sensor	▪ Captador	1

**Nouveaux débitmètres et capteurs / New flowmeters and sensors
/ Neue Messzelle und Sensor / Nuevos caudalímetros y captadores**



⇒ **CYCLOMIX™ MICRO & CYCLOMIX™ MICRO+**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*-	155 660 078	Ensemble compteur	Meter assembly	Volumenmessgerät kpl.	Conjunto contador	2
*12	155 660 041	▪ Débitmètre	▪ Flowmeter	▪ Messzelle	▪ Caudalímetro	1
*-	155 660 082	▪ ▪ Joint (x 1)	▪ ▪ Seal (pack of 1)	▪ ▪ Dichtung (1 St.)	▪ ▪ Junta (bolsa de 1)	1
*-	155 660 086	▪ Ensemble capteur	▪ Sensor assembly	▪ Sensor Einheit	▪ Conjunto captador	1
*14	910 060 106	▪ ▪ Capteur	▪ ▪ Sensor	▪ ▪ Sensor	▪ ▪ Captador	1
-	NC / NS	▪ ▪ Connecteur	▪ ▪ Connector	▪ ▪ Anschluss	▪ ▪ Conector	1

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	155 660 165	Pochette de maintenance débitmètre (ind. 12 + joint)	Servicing kit - Flowmeter (ind. 12 + seal)	Servicekit für Messzelle (Pos. 12 + Dichtung)	Bolsa de mantenimiento caudalímetro (ind. 12 + junta)	1

⇒ **MICRO+ PH**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
-	155 660 078	Ensemble compteur (BASE)	Meter assembly (BASE)	Volumenmessgerät kpl. (BASIS)	Conjunto contador (BASE)	1
* 12a	155 660 041	▪ Débitmètre (BASE)	▪ Flowmeter (BASE)	▪ Messzelle (BASIS)	▪ Caudalímetro (BASE)	1
*-	155 660 082	▪ ▪ Joint (x 1)	▪ ▪ Seal (pack of 1)	▪ ▪ Dichtung (1 St.)	▪ ▪ Junta (bolsa de 1)	1
*-	155 660 086	▪ Ensemble capteur	▪ Sensor assembly	▪ Sensor Einheit	▪ Conjunto captador	1
* 14a	910 060 106	▪ ▪ Capteur	▪ ▪ Sensor	▪ ▪ Sensor	▪ ▪ Captador	1
-	NC / NS	▪ ▪ Connecteur	▪ ▪ Connector	▪ ▪ Anschluss	▪ ▪ Conector	1
*-	155 660 079	Compteur (CATA)	Meter (CATA)	Volumenmessgerät kpl. (HÄRTER)	Contador (CATA)	1
* 12c	155 660 042	▪ Débitmètre (CATA) (inox 316 L)	▪ Flowmeter (CATA) (stainless steel, 316 L)	▪ Messzelle (HÄRTER) (Edelstahl 316 L)	▪ Caudalímetro (CATA) (inox 316 L)	1
*-	155 660 082	▪ ▪ Joint (x 1)	▪ ▪ Seal (pack of 1)	▪ ▪ Dichtung (1 St.)	▪ ▪ Junta (bolsa de 1)	1
*-	155 660 086	▪ Ensemble capteur	▪ Sensor assembly	▪ Sensor Einheit	▪ Conjunto captador	1
* 14c	910 060 106	▪ ▪ Capteur	▪ ▪ Sensor	▪ ▪ Sensor	▪ ▪ Captador	1
-	NC / NS	▪ ▪ Connecteur	▪ ▪ Connector	▪ ▪ Anschluss	▪ ▪ Conector	1

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	155 660 165	Pochette de maintenance débitmètre (ind. 12a + joint)	Servicing kit - Flowmeter (ind. 12a + seal)	Servicekit für Messzelle (Pos. 12a + Dichtung)	Bolsa de mantenimiento caudalímetro (ind. 12a + junta)	1
*	155 660 166	Pochette de maintenance débitmètre (ind. 12c+ joint)	Servicing kit - Flowmeter (ind. 12c + seal)	Servicekit für Messzelle (Pos. 12c + Dichtung)	Bolsa de mantenimiento caudalímetro (ind. 12c + junta)	1

⇒ **MICRO+ PH+**

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*-	155 660 078	Ensemble compteur (BASE)	Meter assembly (BASE)	Volumenmessgerät kpl. (BASIS)	Conjunto contador (BASE)	1
* 12a	155 660 041	▪ Débitmètre (BASE)	▪ Flowmeter (BASE)	▪ Messzelle (BASIS)	▪ Caudalímetro (BASE)	1
*-	155 660 082	▪ ▪ Joint (x 1)	▪ ▪ Seal (pack of 1)	▪ ▪ Dichtung (1 St.)	▪ ▪ Junta (bolsa de 1)	1
*-	155 660 086	▪ Ensemble capteur	▪ Sensor assembly	▪ Sensor Einheit	▪ Conjunto captador	1
* 14a	910 060 106	▪ ▪ Capteur	▪ ▪ Sensor	▪ ▪ Sensor	▪ ▪ Captador	1
-	NC / NS	▪ ▪ Connecteur	▪ ▪ Connector	▪ ▪ Anschluss	▪ ▪ Conectador	1
11d	NC / NS	Compteur (CATA)	Meter (CATA)	Volumenmessgerät kpl. (HÄRTER)	Contador (CATA)	1
* 12d	NC / NS	▪ Débitmètre (CATA) (inox 316 L)	▪ Flowmeter (CATA) (stainless steel, 316 L)	▪ Messzelle (HÄRTER) (Edelstahl 316 L)	▪ Caudalímetro (CATA) (inox 316 L)	1
*-	155 660 082	▪ ▪ Joint (x 1)	▪ ▪ Seal (pack of 1)	▪ ▪ Dichtung (1 St.)	▪ ▪ Junta (bolsa de 1)	1
*-	155 660 086	▪ Ensemble capteur	▪ Sensor assembly	▪ Sensor Einheit	▪ Conjunto captador	1
* 14c	910 060 106	▪ ▪ Capteur	▪ ▪ Sensor	▪ ▪ Sensor	▪ ▪ Captador	1
-	NC / NS	▪ ▪ Connecteur	▪ ▪ Connector	▪ ▪ Anschluss	▪ ▪ Conectador	1

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*	155 660 165	Pochette de maintenance débitmètre (ind. 12a + joint)	Servicing kit - Flowmeter (ind. 12a + seal)	Servicekit für Messzelle (Pos. 12a + Dichtung)	Bolsa de mantenimiento caudalímetro (ind. 12a + junta)	1
*	155 660 166	Pochette de maintenance débitmètre (ind. 12c+ joint)	Servicing kit - Flowmeter (ind. 12c + seal)	Servicekit für Messzelle (Pos. 12c + Dichtung)	Bolsa de mantenimiento caudalímetro (ind. 12c + junta)	1

**REPLACEMENT DES ANCIENS DEBITMETRES ET CAPTEURS
/ FORMER FLOWMETERS AND SENSORS REPLACEMENT
/ ASTAUCH DER ALTEN MESSZELLEN UND SENSOREN
/ CAMBIO DE LOS ANTERIORES CAUDALIMETROS Y CAPTADORES**

*Si vous devez remplacer l'une des pièces suivantes
/ In case of replacement of one of the following parts
/ Wenn Sie eines dieser Teile ersetzen müssen
/ Si Vd. tiene que cambiar una de las piezas siguientes*

*Vous devez commander
/ You must order
/ Müssen Sie folgendes bestellen
/ Vd. debe encargar*



055 660 001



910 060 102



055 660 001 + 910 060 102



155 660 078



055 660 501



910 060 102



055 660 501 + 910 060 102



155 660 079

*Si vous devez remplacer l'une des pièces suivantes
/ In case of replacement of one of the following parts
/ Wenn Sie eines dieser Teile ersetzen müssen
/ Si vd. tiene que cambiar una de las piezas siguientes*

*Vous devez commander
/ You must order
/ Müssen Sie folgendes bestellen
/ Vd. debe encargar*



055 660 001



055 660 002



055 660 001 + 055 660 002



055 660 501



055 660 002



055 660 501 + 055 660 002



155 660 078



155 660 079

Nota : Pour effectuer ce changement il n'est pas nécessaire de refaire le câblage connecteur.

Nota : To replace these elements, you do not need to make the connector cabling again.

Anmerkung : Wenn Sie diese Teile ersetzen, brauchen Sie die Kabel nicht erneuern.

Nota : Para llevar a cabo este cambio, no se necesita hacer de nuevo el cableado del conector.



INSTRUCTION MANUAL
COLOR CHANGER

Manual : 2102 573.186.112

Date : 19/02/21 - Supersede : 20/12/18
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
13, chemin de Malacher
38 240 - MEYLAN - France
☎ : 33 (0)4 76 41 60 60

www.sames-kremlin.com

**INSTRUCTION MANUAL
COLOR CHANGER**

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2. DESCRIPTION2

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5. DISASSEMBLY - ASSEMBLY5

ADDITIONAL DOCUMENTATIONS :

EU declaration of conformity	578.050.130
	Spare parts
Color changer	573.187.050
CTM valve	573.188.050

Dear Customer,

You are the owner of our new color changer and we would like to take this opportunity to thank you.

To make sure your investment will provide full satisfaction, special care has been taken by SAMES KREMLIN during all designing and manufacturing processes.

To obtain the best result, safe and efficient operation of your equipment, we advise you to read and make yourself familiar with this instruction and service manual. Indeed, the non-compliance with instructions and precautions stated in this manual could reduce the equipment working-life, result in operating trouble and create unsafe conditions.

1. GENERAL SAFETY INSTRUCTIONS

- ➔ The personnel involved in operating and servicing this equipment must be aware of all safety requirements stated in this manual. The workshop supervisor must be certain that the personnel has perfectly understood the safety instructions and complies with them.
- ➔ Use the equipments only in a well-ventilated area to prevent from serious body injuries, fire and explosion hazards.
- ➔ Spraying of some materials may result in hazardous working conditions. To protect the operator, respirator mask, hand cream and glasses are required.
- ➔ The operating pressure of these equipments are particularly high. Consequently, some precautions must be taken in order to prevent from accidents and from unsafe working conditions.

2. DESCRIPTION

The color changer is composed of several stackings modules.

It enables a quick color change without material handling. As a result, costs through down time and solvent consumption are dramatically reduced.

There is no dead volume thus allowing a full flushing.

It is used on automatic installations and also on optimized manual installation. A color changer consists of :

- 1 end module (inlet),
- x intermediate modules,
- 1 outlet flange,
- 2 tie-rods.

The end module and the intermediate modules are fitted with two air operated valves. Each valve feeds the central fluid passage with the selected color.

Select the appropriate modules and valves according to the application :

- airspray (low pressure),
- AIRMIX (medium pressure - 120 bar / 1740 psi),
- AIRMIX (high pressure - 200 bar / 2900 psi).

With the required color valves, add a solvent valve for the flushing and, if necessary, an additional valve to provide compressed air to speed up the flushing process.

On a color changer, the number of valves is **always** an even number.

3. ASSEMBLING

The modules are stacked together and secured by tie-rods suitable for the number of modules.
If required two wall mounting brackets (use screws Ø 6 mm) can be installed on both side of the color changer.

It is **compulsory** to fit the solvent valve on the end module, **on the opposite side of the fluid outlet**.

4. TECHNICAL FEATURES

Modula rand versatile.

Ease of maintenance (the valves can be removed without dismantling the fluid hoses). Designed for fluid circulation.

Supplied with valve opening indicator.

	Airspray	AIRMIX 120 bar / 1740 psi	AIRMIX GT 200 bar / 2900 psi	AIRMIX 200 bar / 2900 psi (stainless steel 316 L)	AIRMIX 200 bar / 2900 psi (stainless steel 316 L NPTF)
Maximum fluid pressure	8 bar / 116 psi	120 bar / 1740 psi	200 bar / 2900 psi	200 bar / 2900 psi	200 bar / 2900 psi
Central fluid passage diameter	8 mm / 5/16"	6 mm // 1/4"	6 mm / 1/4"	6 mm / 1/4"	6 mm / 1/4"
Air control fitting (ind. 5)	For hose 2,7 x 4				
Fluid inlet fitting (ind. 4)	F 1/4" NPS				F 1/4" NPTF
Fluid outlet fitting (ind. 6)	F 1/4" NPS				
Wetted parts	Stainless steel PTFE seals	Stainless steel PTFE seals	Stainless steel GT seals	Stainless steel 316L PTFE seals	Stainless steel 316L NPTF PTFE seals

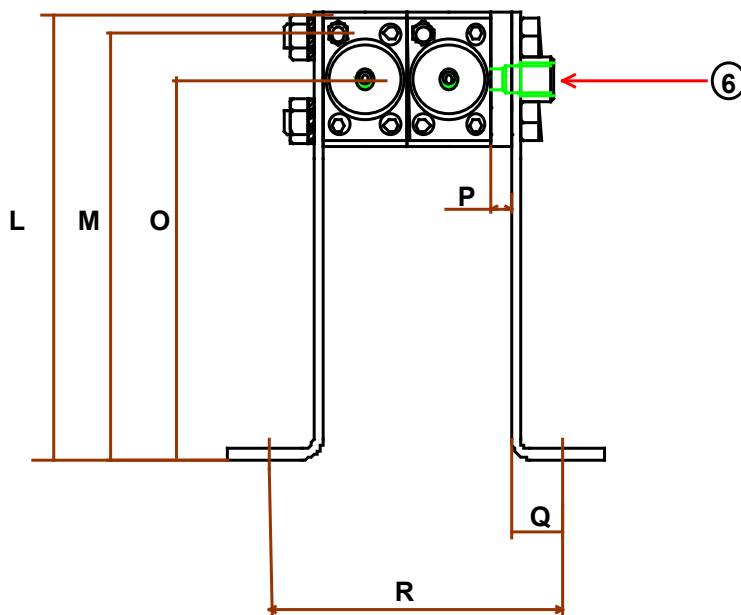
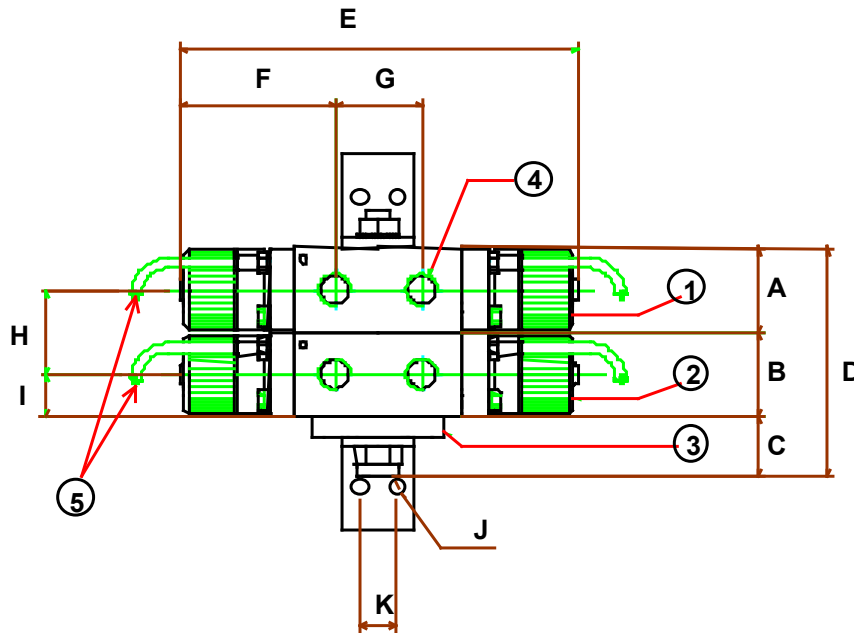
- 1 → end module (inlet)
 - 2 → intermediate module
 - 3 → outlet flange
- } Refer to drawing next page

Dimensions :

Ind.	A	B	C	D*	E	F	G	H*	I	J	K	L
mm	35	35	25	60 + (N x 35)	165	64,5	36	N x 35	17,5	∅ 6,5	15	185
"	1.38	1.38	1	2.36 + (N x 1.38)	6.50	2.54	1.42	Nx1.38	0.69	0.26	0.59	7.28

Ind.	M	O	P	Q	R*
mm	176,5	157,5	8	21,5	86 + (N x 35)
"	6.95	6.20	5/16	0.85	3.38 + (N x 1.38)

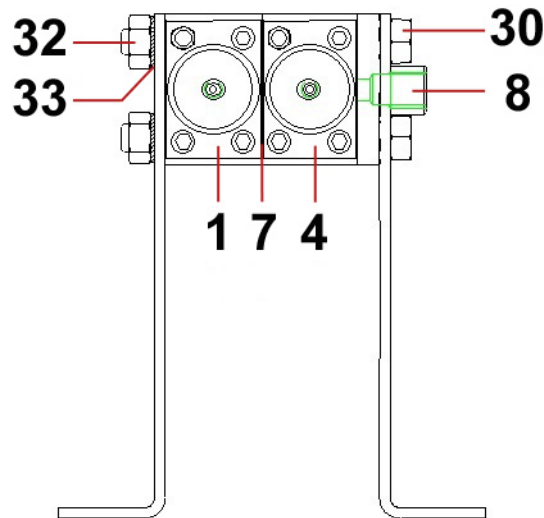
* N = Number of intermediate module



5. DISASSEMBLY - ASSEMBLY

Prior to removing a component shut off air and material supplies. Depressurize the system.

■ NEW MODULE INSTALLATION (OR MODULE REPLACEMENT) (REFER TO DOC. 573.187.050)



Unscrew nuts (32).

Remove washers (33).

Carry out the same operation for the second tie-rod.

Remove both tie-rods (30).

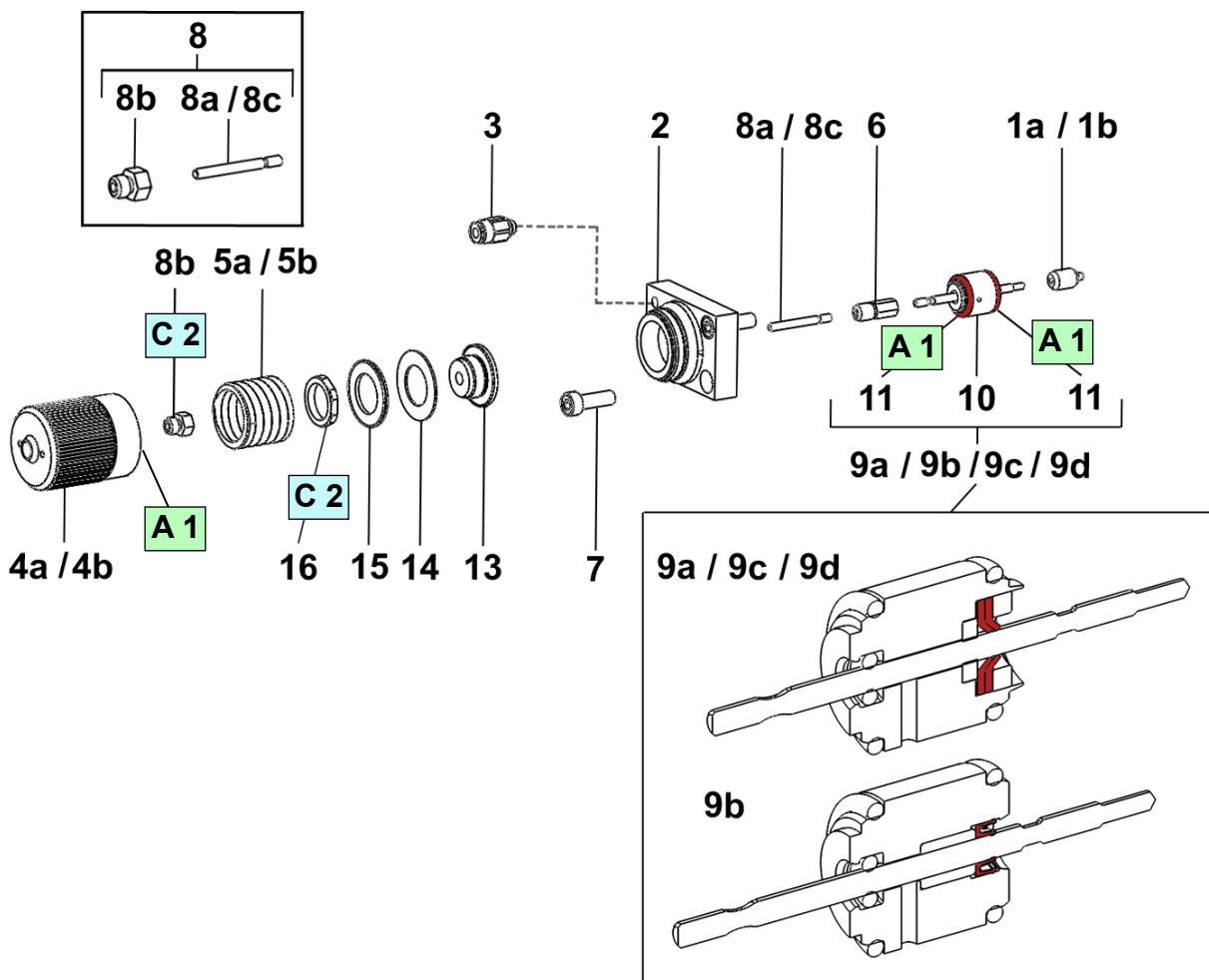
Mount the new module (be certain seal (7) is installed between two modules).

Slide the appropriate tie-rods through the modules, from fluid outlet flange to the end module.

Be careful when positioning tie-rods (30), tie-rods head against fluid outlet flange (8).

Install washers (33) and then screw nuts (32).

■ CARTRIDGE OF A FLUID VALVE (IND. 9A / 9B / 9C / 9D) (REFER TO DOC. 573.188.050)



Unscrew the 3 screws (7).

Extract the valve from the module body.

Unscrew the needle (1a / 1b).

Unscrew the cylinder (4a / 4b).

Hold rod carrier (6), unscrew the needle rod and remove cartridge with rod assembly (9a / 9b / 9c / 9d). Remove the seals.

When reassembling :

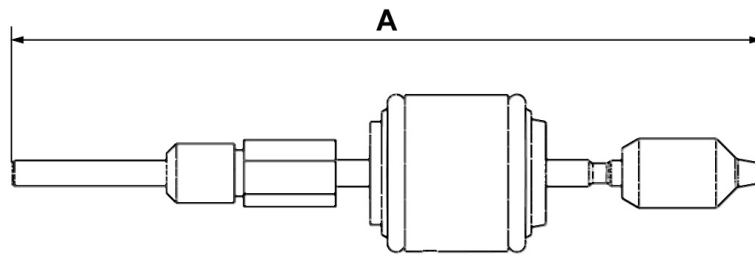
Change the seals (11), lubricate them then install new cartridge (9a / 9b / 9c / 9d) in cylinder support (2) by pushing it until the cartridge shoulder comes to lean against the cylinder support shoulder. Then reinstall all the components in the reverse order of disassembly.

Install the valve in front of the module body.

Centre the cartridge (9a / 9b / 9c / 9d) on the module body and reinstall screws (7).

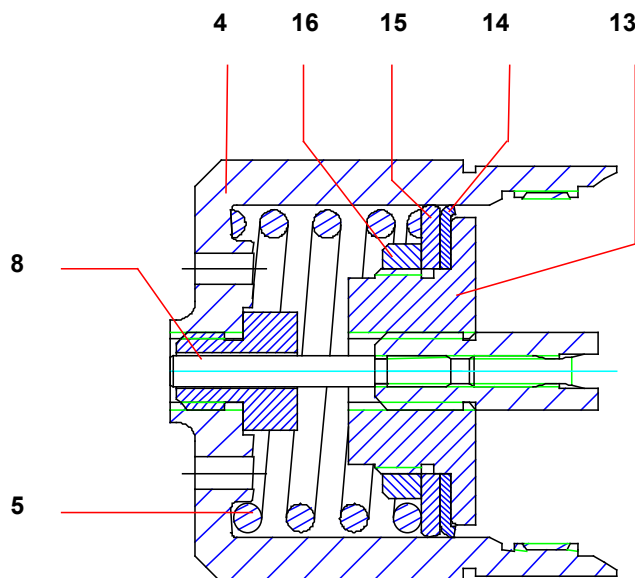


Comply with the dimension value A (1+9+6+8a).



A (mm)	
Airspray valve	78.5 / 3.09
AIRMIX valve 120 bar / 1740 psi	77 / 3.03
AIRMIX valve 200 bar / 2900 psi	82.9 / 3.26
AIRMIX valve 200 bar / 2900 psi (stainless steel 316 L)	
AIRMIX valve 200 bar / 2900 psi (stainless steel 316 L NPTF)	

■ PISTON PACKING (IND. 14)



- Unscrew the cylinder (4).
- Remove the spring (5).
- Unscrew the valve opening indicator (8).
- Unscrew the nut (16).
- Remove the support washer (15) and the packing (14).
- Clean the parts and replace them if it is necessary.

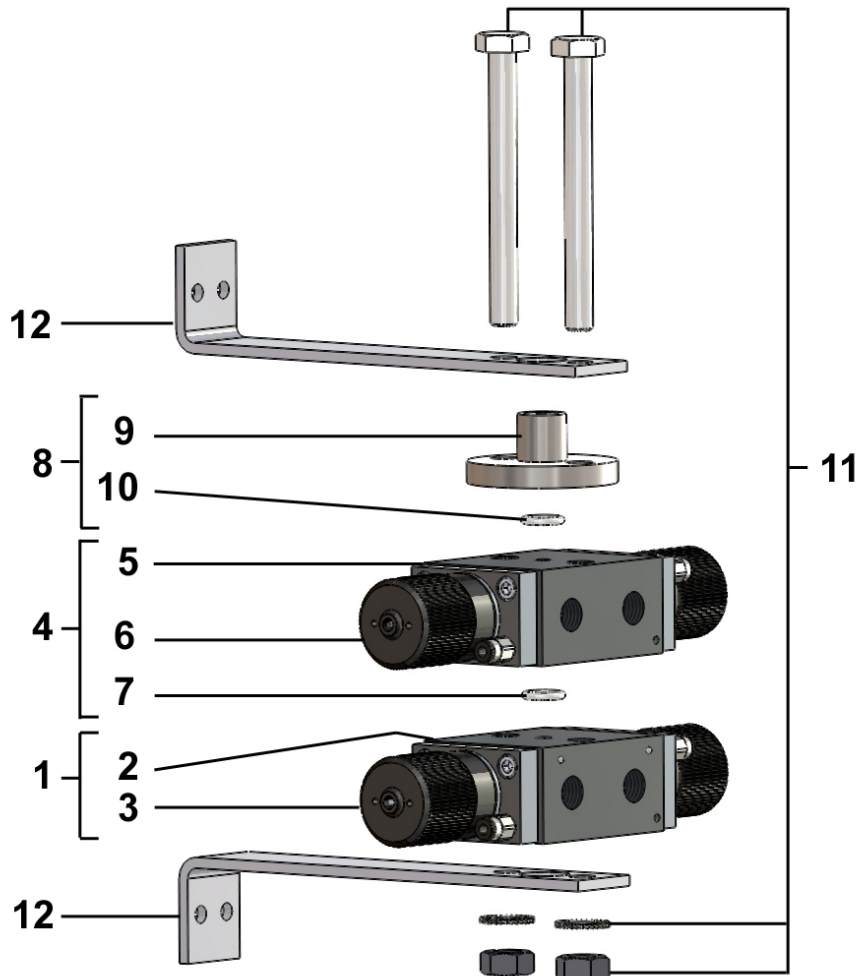
Prior to their reassembly on piston (13), packing lip (14) must be shaped by hand as shown as above (packing turned up on the piston).

Glue the nut (16) on the piston (13) with a light coating of glue (eg : Loctite 222).

Index	Instructions	Description	Part number
A 1	PTFE grease	PTFE grease (10 ml / 0.0026 US gal)	560.440.101
C 2	Low strength - Anaerobic Adhesive	Loctite 222 (50 ml / 0.013 US gal)	554.180.010

<p>Doc. 573.187.050 Date/Datum/Fecha : 07/05/21 Annule/Cancel/ Ersetzt/Anula : 03/01/19</p>	<p>Modif. / Änderung : Mise à jour / Update / Aktualisierung / Actualización</p>	<p>Pièces de rechange Spare parts list Ersatzteilliste Piezas de repuesto</p>
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CTM	<p>CHANGEUR DE TEINTES INOX / STAINLESS STEEL COLOR CHANGER FARBWECHSELBLOCK - EDELSTAHL / CAMBIO DE COLOR INOX</p>
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➡ **Ind 3 & 6 → Doc. / Dok. 573.188.050**

Version pneumatique / Airspray version / Niederdruck Version / Versión neumática

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1	155 535 100	Module pneumatique d'extrémité	End module (material or solvent or air inlet)	Unteres Modul (Endmodul)	Modulo neumático de extremidad	1
2	055 535 101	• Corps du module	• Body	• Modulkörper	• Cuerpo del modulo	1
*3	155 535 110	• Vanne pneumatique	• Airspray valve	• Niederdruckventil	• Válvula neumática	2
*4	155 535 200	Module pneumatique de commutation	Intermediate module (material inlet only)	Zwischen-Modul (Materialeingang)	Modulo neumático intermediario	1XN
5	055 535 201	• Corps du module	• Body	• Modulkörper	• Cuerpo del modulo	1
*6	155 535 110	• Vanne pneumatique	• Airspray valve	• Niederdruckventil	• Válvula neumática	2
*7	155 535 710	• Joint PTFE (x 10)	• Seal, PTFE (x 10)	• PTFE-Dichtung (10 St.)	• Junta PTFE (x 10)	1

Version Airmix® (120 bar) / Airmix Version (120 bar / 1740 psi)

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1	155 535 300	Module AIRMIX® d'extrémité (120 bar)	End module (material or solvent or air inlet)	Unteres Modul (Endmodul) (120 bar)	Modulo AIRMIX® de extremidad (120 bar)	1
2	055 535 301	• Corps du module	• Body	• Modulkörper	• Cuerpo del modulo	1
*3	155 535 310	• Vanne AIRMIX® (120 bar)	• AIRMIX valve (120 bar / 1740 psi)	• Airmix® -Ventil (120 bar)	• Válvula AIRMIX® (120 bar)	2
*4	155 535 400	Module AIRMIX® de commutation (120 bar)	Intermediate module (material inlet only) (120 bar / 1740 psi)	Zwischen-Modul (Materialeingang) (120 bar)	Modulo AIRMIX® intermediario (120 bar)	1XN
5	055 535 401	• Corps du module	• Body	• Modulkörper	• Cuerpo del modulo	1
*6	155 535 310	• Vanne AIRMIX® (120 bar)	• AIRMIX valve (120 bar / 1740 psi)	• AIRMIX® -Ventil (120 bar)	• Válvula AIRMIX® (120 bar)	2
*7	155 535 710	• Joint PTFE (les 10)	• Seal, PTFE (x 10)	• PTFE-Dichtung (10 St.)	• Junta PTFE (x 10)	1

Version Airmix® (200 bar) / Airmix® Version (200 bar / 2900 psi)

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1	155 535 350	Module d'extrémité AIRMIX® GT (200 bar) (pour machine dont le numéro de série est > à 15T1003)	GT AIRMIX end module (material or solvent or air inlet) (200 bar / 2900 psi) (for machine which part number is > to 15T1003)	Unteres Modul GT (Endmodul für Material und Spülmittel oder Spülmittel und Pulsluft) (200 bar) (ab Seriennummer > 15T1003)	Modulo de extremidad AIRMIX® GT (200 bar) (para máquina cuyo número de serie es superior a 15T1003)	1
2	055 535 301	• Corps du module	• Body	• Modulkörper	• Cuerpo del modulo	1
*3	155 535 315	• Vanne AIRMIX® GT (200 bar)	• GT AIRMIX valve (200 bar / 2900 psi)	• AIRMIX® GT -Ventil (200 bar)	• Válvula AIRMIX® GT (200 bar)	2
*4	155 535 450	Module AIRMIX® de commutation (200 bar)	Intermediate module (material inlet only) (200 bar / 2900 psi)	Zwischen-Modul (Materialeingang) (200 bar)	Modulo AIRMIX® intermediario (200 bar)	1XN
5	055 535 401	• Corps du module	• Body	• Modulkörper	• Cuerpo del modulo	1
*3	155 535 315	• Vanne AIRMIX® GT (200 bar)	• GT AIRMIX valve (200 bar / 2900 psi)	• AIRMIX® GT -Ventil (200 bar)	• Válvula AIRMIX® GT (200 bar)	2
*7	155 535 710	• Joint PTFE (les 10)	• Seal, PTFE (x 10)	• PTFE-Dichtung (10 St.)	• Junta PTFE (x 10)	1

Pièces communes - Common parts - Gleiche Teile - Partes comunes

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*8	155 535 500	Bride de sortie équipée	Flange assembly, material outlet	Ausgangsflansch (Materialausgang) kpl.	Brida de salida equipada	1
9	NC / NS	•Bride de sortie nue	•Bare outlet flange	•Ausgangsflansch, nackt	•Brida de salida sola	1
*10	155 535 710	•Joint PTFE (les 10)	•Seal, PTFE (x 10)	•PTFE- Dichtung (10 St.)	•Junta PTFE (x 10)	1

CHANGEUR DE TEINTES INOX 316 L	COLOR CHANGER, 316 L STAINLESS STEEL
FARBWECHSELBLOCK, EDELSTAHL 316 L	CAMBIO DE COLOR INOX 316 L

Version Airmix® (200 bar) / Airmix Version (200 bar / 2900 psi)

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1	155 536 200	Module AIRMIX® d'extrémité (200 bar) (inox 316 L)	End module (material or solvent or air inlet) (200 bar / 2900 psi) (stainless steel, 316 L)	Unteres Modul (Endmodul) (200 bar) (Edelstahl 316 L)	Modulo AIRMIX® de extremidad (200 bar) (inox 316 L)	1
2	055 536 301	•Corps du module (inox 316 L)	•Body (stainless steel, 316 L)	•Modulkörper (Edelstahl 316 L)	•Cuerpo del modulo (inox 316 L)	1
*3	155 536 300	•Vanne AIRMIX® (200 bar) (inox 316 L)	•AIRMIX valve (200 bar / 2900 psi) (stainless steel, 316 L)	•AIRMIX® -Ventil (200 bar) (Edelstahl 316 L)	•Válvula AIRMIX® (200 bar) (inox 316 L)	2
*4	155 536 320	Module AIRMIX® de commutation (200 bar) (inox 316 L)	Intermediate module (material inlet only) (200 bar / 2900 psi) (stainless steel, 316 L)	Zwischen-Modul (Materialeingang) (200 bar) (Edelstahl 316 L)	Modulo AIRMIX® intermédiaire (200 bar) (inox 316 L)	1XN
5	NC / NS	•Corps du module (inox 316 L)	•Body (stainless steel, 316 L)	•Modulkörper (Edelstahl 316 L)	•Cuerpo del modulo (inox 316 L)	1
*6	155 536 300	•Vanne AIRMIX® (200 bar) (inox 316 L)	•AIRMIX valve (200 bar / 2900 psi) (stainless steel, 316 L)	•Airmix® -Ventil (200 bar) (Edelstahl 316 L)	•Válvula AIRMIX® (200 bar) (inox 316 L)	2
*7	155 535 710	•Joint PTFE (les 10)	•Seal, PTFE (x 10)	•PTFE-Dichtung (10 St.)	•Junta PTFE (x 10)	1
*8	155 536 410	Bride de sortie équipée	Flange assembly, material outlet	Ausgangsflansch (Materialausgang) kpl.	Brida de salida equipada	1
9	NC / NS	•Bride de sortie nue (inox 316 L)	•Bare flange (stainless steel, 316 L)	•Ausgangsflansch, nackt (Edelstahl 316 L)	•Brida de salida sola (inox 316 L)	1
*10	155 535 710	•Joint PTFE (les 10)	•Seal, PTFE (x 10)	•PTFE-Dichtung (10 St.)	•Junta PTFE (x 10)	1

CHANGEUR DE TEINTES INOX 316 L NPTF	COLOR CHANGER, 316 L NPTF STAINLESS STEEL
FARBWECHSELBLOCK, EDELSTAHL 316 L NPTF	CAMBIO DE COLOR INOX 316 L NPTF

Version Airmix® (200 bar) / Airmix Version (200 bar / 2900 psi)

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1	155 662 050	Module AIRMIX® d'extrémité (200 bar) (inox 316 L NPTF)	End module (material or solvent or air inlet) (200 bar / 2900 psi) (stainless steel, 316 L NPTF)	Unteres Modul (Endmodul) (200 bar) (Edelstahl 316 L NPTF)	Modulo AIRMIX® de extremidad (200 bar) (inox 316 L NPTF)	1
2	155 662 051	• Corps du module (inox 316 L NPTF)	• Body (stainless steel, 316 L NPTF)	• Modulkörper (Edelstahl 316 L NPTF)	• Cuerpo del modulo (inox 316 L NPTF)	1
*3	155 662 020	• Vanne AIRMIX® (200 bar) (inox 316 L NPTF)	• AIRMIX valve (200 bar / 2900 psi) (stainless steel, 316 L NPTF)	• AIRMIX® -Ventil (200 bar) (Edelstahl 316 L NPTF)	• Válvula AIRMIX® (200 bar) (inox 316 L NPTF)	2
*4	155 662 060	Module AIRMIX® de commutation (200 bar) (inox 316 L NPTF)	Intermediate module (material inlet only) (200 bar / 2900 psi) (stainless steel, 316 L NPTF)	Zwischen-Modul (Materialeingang) (200 bar) (Edelstahl 316 L NPTF)	Modulo AIRMIX® intermedio (200 bar) (inox 316 L NPTF)	1XN
5	155 662 062	• Corps du module (inox 316 L NPTF)	• Body (stainless steel, 316 L NPTF)	• Modulkörper (Edelstahl 316 L NPTF)	• Cuerpo del modulo (inox 316 L NPTF)	1
*6	155 662 020	• Vanne AIRMIX® (200 bar) (inox 316 L NPTF)	• AIRMIX valve (200 bar / 2900 psi) (stainless steel, 316 L NPTF)	• Airmix® -Ventil (200 bar) (Edelstahl 316 L NPTF)	• Válvula AIRMIX® (200 bar) (inox 316 L NPTF)	2
*7	155 535 710	• Joint PTFE (les 10)	• Seal, PTFE (x 10)	• PTFE-Dichtung (10 St.)	• Junta PTFE (x 10)	1
*8	155 536 410	Bride de sortie équipée	Flange assembly, material outlet	Ausgangsflansch (Materialausgang) kpl.	Brida de salida equipada	1
9	NC / NS	• Bride de sortie nue (inox 316 L)	• Bare flange (stainless steel, 316 L)	• Ausgangsflansch, nackt (Edelstahl 316 L)	• Brida de salida sola (inox 316 L)	1
*10	155 535 710	• Joint PTFE (les 10)	• Seal, PTFE (x 10)	• PTFE-Dichtung (10 St.)	• Junta PTFE (x 10)	1

* Pièces de maintenance préconisées

* Preceding the index number denotes a suggested spare part.

* Bezeichnete Teile sind empfohlene Ersatzteile.

* Piezas de mantenimiento preventivas.

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N S : Denotes parts are not serviceable.

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N S : no suministrado.

TIRANT / TIE-RODS / VERBINDUNGSBOLZEN / TIRANTE

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*11	---	Ensemble de 2 tirants pour :	Set of 2 tie-rods for :	Verbindungsbolzen (Satz mit 2 Stück) für:	Conjunto de 2 tirantes para :	1
-	155 535 610	• 1 module (1 d'extrémité + 1 bride)	• 1 module (1 end module + 1 flange)	• 1 Modul (1 Endmodul + 1 Ausgangsflansch)	• 1 modulo (1 de extremidad + 1 brida)	-
-	155 535 620	• 2 modules (1 d'extrémité + 1 de commutation + 1 bride)	• 2 modules (1 end module + 1 intermediate module + 1 flange)	• 2 Module (1 Endmodul + 1 Zwischenmodul + 1 Ausgangsflansch)	• 2 modulos (1 de extremidad + 1 intermediario + 1 brida)	-
-	155 535 630	• 3 modules (1 d'extrémité + 2 de commutation + 1 bride)	• 3 modules (1 end module + 2 intermediate modules + 1 flange)	• 3 Module (1 Endmodul + 2 Zwischenmodule + 1 Ausgangsflansch)	• 3 modulos (1 de extremidad + 2 intermediario + 1 brida)	-
-	155 535 640	• 4 modules (1 d'extrémité + 3 de commutation + 1 bride)	• 4 modules (1 end module + 3 intermediate modules + 1 flange)	• 4 Module (1 Endmodul + 3 Zwischenmodule + 1 Ausgangsflansch)	• 4 modulos (1 de extremidad + 3 intermediario + 1 brida)	-
-	155 535 650	• 5 modules (1 d'extrémité + 4 de commutation + 1 bride)	• 5 modules (1 end module + 4 intermediate modules + 1 flange)	• 5 Module (1 Endmodul + 4 Zwischenmodule + 1 Ausgangsflansch)	• 5 modulos (1 de extremidad + 4 intermediario + 1 brida)	-

Chaque tirant est équipé d'un écrou et d'une rondelle.

Each tie-rod is supplied with 1 nut and 1 washer.

Jeder Verbindungsbolzen wird mit 1 Mutter und 1 Beilagscheibe geliefert.

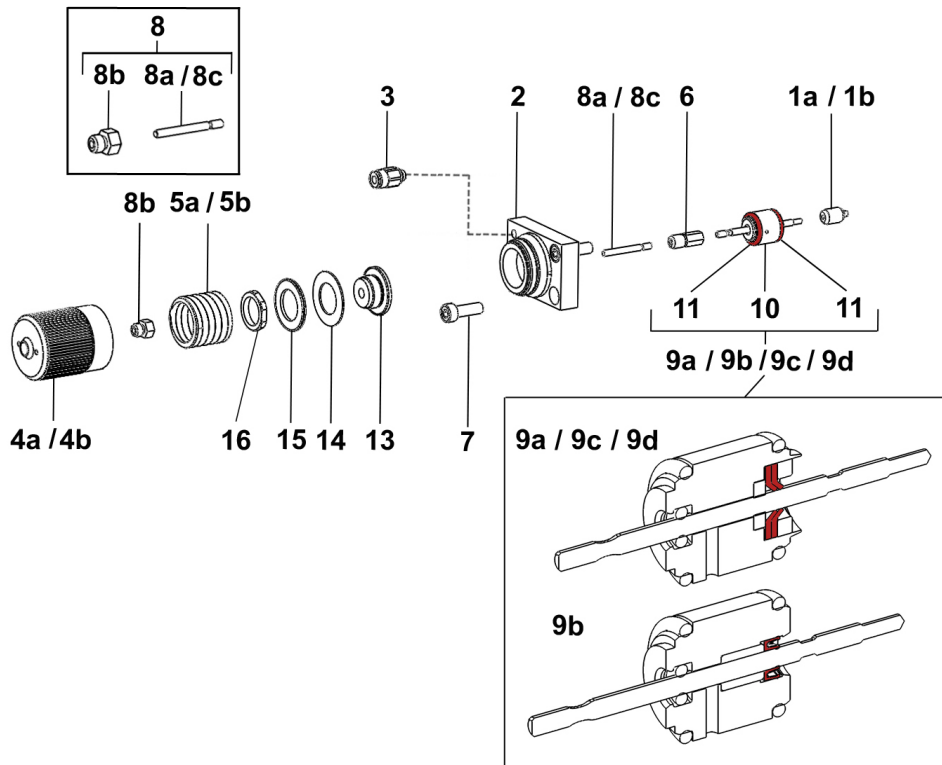
Cada tirante está equipado con una tuerca y una arandela.

OPTIONS - ON REQUEST - OPTIONEN - OPCIONES

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
12	155 535 700	Ensemble de 2 équerres de fixation	Set of 2 wall mounting brackets	Haltewinkel (Satz mit 2 Winkel)	Conjunto de 2 escuadras de fijación	1

<p>Doc. 573.188.050 Date/Datum/Fecha : 18/02/21 Annule/Cancel/ Ersetzt/Anula : 02/01/19</p>	<p>Modif. / Änderung : Ind. / Pos. 11 a / 11 b → 11 Pour / For / Für / Para # 155 536 300: Ind. / Pos. 1c # 155 507 014 → Ind. / Pos. 1b # 155 507 013 Ind. / Pos. 1c supprimé / canceled / Annulliert / suprimido Ind. / Pos. 1d : 155 662 011 → 029 930 202 Pour / For / Für / Para # 155 662 010: # 155 662 099 → # 129 529 918</p>	<p>Pièces de rechange Spare parts list Ersatzteilliste Piezas de repuesto</p>
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<p>VANNE CTM en inox pour changeur de teintes</p>	<p>CTM VALVE (stainless steel) for color changer</p>
<p>CTM FARBWECHSEL-VENTIL (Edelstahl)</p>	<p>VÁLVULAS CTM de inox para cambiador de color</p>



<div style="text-align: center;"> </div> <p>Respecter la cote de montage A (1+9+6+8a). Comply with the dimension value A (1+9+6+8a). Bei der Montage das Maß A einhalten (1+9+6+8a). Cumplir con la cota de montaje A (1+9+6+8a).</p>	<div style="text-align: center;"> </div> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th colspan="5" style="text-align: center;">A (mm / ")</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">155 535 110</td> <td style="text-align: center;">155 535 310</td> <td style="text-align: center;">155 535 315</td> <td style="text-align: center;">155 536 300</td> <td style="text-align: center;">155 662 020</td> </tr> <tr> <td style="text-align: center;">78,5 / 3.09</td> <td style="text-align: center;">77 / 3.03</td> <td colspan="3" style="text-align: center;">82,9 / 3.26</td> </tr> </tbody> </table>	A (mm / ")					155 535 110	155 535 310	155 535 315	155 536 300	155 662 020	78,5 / 3.09	77 / 3.03	82,9 / 3.26		
A (mm / ")																
155 535 110	155 535 310	155 535 315	155 536 300	155 662 020												
78,5 / 3.09	77 / 3.03	82,9 / 3.26														

VANNE PNEUMATIQUE	AIRSPRAY VALVE	#
NIEDERDRUCK-VENTIL	VÁLVULA NEUMÁTICA	155.535.110

VANNE AIRMIX® 120 bar	AIRMIX VALVE (120 bar / 1740 psi)	#
AIRMIX® - VENTIL (120 bar)	VÁLVULA AIRMIX® 120 bar	155.535.310

VANNE AIRMIX® GT 200 bar	GT AIRMIX VALVE (200 bar / 2900 psi)	#
AIRMIX® GT - VENTIL (200 bar)	VÁLVULA AIRMIX® GT 200 bar	155.535.315

VANNE AIRMIX® 200 bar (inox 316 L)	AIRMIX VALVE (200 bar / 2900 psi) (stainless steel, 316 L)	#
AIRMIX® - VENTIL (200 bar), (Edelstahl 316 L)	VÁLVULA AIRMIX® 200 bar (inox 316 L)	155.536.300

VANNE AIRMIX® 200 bar (inox 316 L NPTF)	AIRMIX VALVE (200 bar / 2900 psi) (stainless steel, 316 L NPTF)	#
AIRMIX® - VENTIL (200 bar), (Edelstahl 316 L NPTF)	VÁLVULA AIRMIX® 200 bar (inox 316 L NPTF)	155.662.020

Pièces communes - Common parts - Gleiche Teile - Partes comunes

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
3	905 120 944	Raccord droit M5 (air commande ouverture)	Air connector, M5 (control air)	Steckanschluss, M5 (Steuerluft)	Racor recto M5 (aire de mando de apertura)	1
6	055 501 003	Entraîneur de tige	Rod carrier	Stangenführung	Arrastre de eje	1
7	933 151 221	Vis CHc M5 x 16	Screw, model CHc M5 x 16	Schraube, CHc M5 x 16	Tornillo, tipo CHc M5 x 16	3
13	029 875 301	Piston seul	Piston only	Kolben, einzeln	Pistón solo	1
*14	029 711 302	Garniture	Packing	Kolbenmanschette	Guarnición	1
15	029 711 303	Rondelle d'appui	Support washer	Scheibe	Arandela de apoyo	1
16	029 711 304	Ecrou M 16 x 100	Nut, model M 16 x 100	Mutter, M 16 x 1,00	Tuerca, tipo M 16 x 100	1

* Pièces de maintenance préconisées.

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N S : no suministrado.

Pièces spécifiques - Specific parts - Spezifische Teile - Partes específicas

Pour / for / für / para # 155.535.110

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1a	155 501 004	Pointeau	Needle	Nadel	Aguja	1
2a	055 535 121	Support cylindre	Support, cylinder	Zylinderhalterung	Soporte cilindro	1
4a	029 711 401	Cylindre	Cylinder	Zylinder	Cilindro	1
5a	050 313 504	Ressort	Spring	Feder	Muelle	1
8	155 501 007	Témoin d'ouverture	Valve opening indicator	Schaltzustandsanzeiger	Testigo de apertura	1
8c	055 501 008	▪ Tige	▪ Rod	▪ Stange	▪ Eje	1
8b	055 501 009	▪ Guide	▪ Guide	▪ Führung	▪ Guía	1
*9a	155 535 140	Cartouche équipée	Cartridge assembly	Packung, kpl	Cartucho equipado	1
10	NC / NS	▪ Cartouche avec tige	▪ Cartridge with rod	▪ Packung mit Stange	▪ Cartucho con eje	1
*11	129 529 918	▪ Joint PTFE (les 10)	▪ Seal, PTFE (pack of 10)	▪ Dichtung PTFE (10 St.)	▪ Junta PTFE (bolsa de 10)	2

Pour / for / für / para # 155.535.310

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1b	155 507 013	Pointeau	Needle	Nadel	Aguja	1
2a	055 535 121	Support cylindre	Support, cylinder	Zylinderhalterung	Soporte cilindro	1
4a	029 711 401	Cylindre	Cylinder	Zylinder	Cilindro	1
5a	050 313 504	Ressort	Spring	Feder	Muelle	1
8	155 501 007	Témoin d'ouverture	Valve opening indicator	Schaltzustandsanzeiger	Testigo de apertura	1
8c	055 501 008	▪ Tige	▪ Rod	▪ Stange	▪ Eje	1
8b	055 501 009	▪ Guide	▪ Guide	▪ Führung	▪ Guía	1
*9a	155 535 140	Cartouche équipée	Cartridge assembly	Packung, kpl	Cartucho equipado	1
10	NC / NS	▪ Cartouche avec tige	▪ Cartridge with rod	▪ Packung mit Stange	▪ Cartucho con eje	1
*11	129 529 918	▪ Joint PTFE (les 10)	▪ Seal, PTFE (pack of 10)	▪ Dichtung PTFE (10 St.)	▪ Junta PTFE (bolsa de 10)	2

Pour / for / für / para # 155.535.315

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1b	155 507 013	Pointeau	Needle	Nadel	Aguja	1
2a	055 535 121	Support cylindre	Support, cylinder	Zylinderhalterung	Soporte cilindro	1
4b	055 535 316	Cylindre	Cylinder	Zylinder	Cilindro	1
5b	050 316 501	Ressort	Spring	Feder	Muelle	1
8	-	Témoin d'ouverture	Valve opening indicator	Schaltzustandsanzeiger	Testigo de apertura	1
8a	055 501 010	▪ Tige	▪ Rod	▪ Stange	▪ Eje	1
8b	055 501 009	▪ Guide	▪ Guide	▪ Führung	▪ Guía	1
*9b	155 528 012	Cartouche équipée	Cartridge assembly	Packung, kpl	Cartucho equipado	1
10	NC / NS	▪ Cartouche avec tige	▪ Cartridge with rod	▪ Packung mit Stange	▪ Cartucho con eje	1
*11	129 529 918	▪ Joint PTFE (les 10)	▪ Seal, PTFE (pack of 10)	▪ Dichtung PTFE (10 St.)	▪ Junta PTFE (bolsa de 10)	2

Pour / for / für / para # 155.536.300

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1b	155 507 013	Pointeau	Needle	Nadel	Aguja	1
2a	055 535 121	Support cylindre	Support, cylinder	Zylinderhalterung	Soporte cilindro	1
4b	055 535 316	Cylindre	Cylinder	Zylinder	Cilindro	1
5b	050 316 501	Ressort	Spring	Feder	Muelle	1
8	-	Témoin d'ouverture	Valve opening indicator	Schaltzustandsanzeiger	Testigo de apertura	1
8a	055 501 010	▪ Tige	▪ Rod	▪ Stange	▪ Eje	1
8b	055 501 009	▪ Guide	▪ Guide	▪ Führung	▪ Guía	1
*9c	155 536 350	Cartouche équipée (inox 316 L)	Cartridge assembly (stainless steel, 316 L)	Packung, kpl (Edelstahl 316 L)	Cartucho equipado (inox 316L)	1
10	NC / NS	▪ Cartouche avec tige	▪ Cartridge with rod	▪ Packung mit Stange	▪ Cartucho con eje	1
*11	129 529 918	▪ Joint PTFE (les 10)	▪ Seal, PTFE (pack of 10)	▪ Dichtung PTFE (10 St.)	▪ Junta PTFE (bolsa de 10)	2

Pour / for / für / para # 155.662.020

Ind	#	Désignation	Description	Bezeichnung	Denominación	Qté
*1d	029 930 202	Pointeau	Needle	Nadel	Aguja	1
2b	155 662 021	Support cylindre	Support, cylinder	Zylinderhalterung	Soporte cilindro	1
4b	055 535 316	Cylindre	Cylinder	Zylinder	Cilindro	1
5b	050 316 501	Ressort	Spring	Feder	Muelle	1
8	-	Témoin d'ouverture	Valve opening indicator	Schaltzustandsanzeiger	Testigo de apertura	1
8a	055 501 010	▪ Tige	▪ Rod	▪ Stange	▪ Eje	1
8b	055 501 009	▪ Guide	▪ Guide	▪ Führung	▪ Guía	1
*9d	155 662 010	Cartouche équipée (inox 316 L)	Cartridge assembly (stainless steel, 316 L)	Packung, kpl (Edelstahl 316 L)	Cartucho equipado (inox 316L)	1
10	NC / NS	▪ Cartouche avec tige	▪ Cartridge with rod	▪ Packung mit Stange	▪ Cartucho con eje	1
*11	129 529 918	▪ Joint PTFE (les 10)	▪ Seal, PTFE (pack of 10)	▪ Dichtung PTFE (10 St.)	▪ Junta PTFE (bolsa de 10)	2

* Pièces de maintenance préconisées.

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