

**DOCUMENTATION**

**AGITATION UNIT**

**CYCLIX 200 L / 52.8 US GAL**

**Manual : 582.012.110-UK - 2005**

*Date: 26/05/20*

*Supersede : 13/02/19*

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



<p align="center"><b>FR</b></p> <p><b>Pour une utilisation sûre, il est de votre responsabilité de :</b></p> <ul style="list-style-type: none"> <li>• Lire attentivement tous les documents avant la mise en service de l'équipement,</li> <li>• D'installer, d'utiliser, d'entretenir et de réparer l'équipement conformément aux préconisations de SAMES KREMLIN ainsi qu'aux réglementations nationales et/ou locales,</li> <li>• Vous assurez que les utilisateurs de cet équipement ont été formés, ont parfaitement compris les règles de sécurité et qu'ils les appliquent.</li> </ul>	<p align="center"><b>UK</b></p> <p><b>To ensure safe use of the machinery, it is your responsibility to:</b></p> <ul style="list-style-type: none"> <li>• Carefully read all documents before putting the machinery into service,</li> <li>• Install, use, maintain and repair the machinery in accordance with SAMES KREMLIN's recommendations and national and/or local regulations,</li> <li>• Make sure that the users of the machinery have received proper training and that they have perfectly understood the safety rules and apply them.</li> </ul>	<p align="center"><b>DE</b></p> <p><b>Eine sichere Nutzung setzt voraus, dass Sie :</b></p> <ul style="list-style-type: none"> <li>• Lesen Sie alle Dokumente sorgfältig durch, bevor Sie die Anlage in Betrieb nehmen,</li> <li>• die Anlage im Einklang mit den Empfehlungen von SAMES KREMLIN sowie mit den nationalen und/oder lokalen Bestimmungen installieren, verwenden, warten und reparieren,</li> <li>• sich vergewissern, dass die Nutzer dieser Anlage angemessen geschult wurden, die Sicherheitsbestimmungen verstanden haben und sie anwenden.</li> </ul>
<p align="center"><b>ES</b></p> <p><b>Para una utilización segura, será de su responsabilidad:</b></p> <ul style="list-style-type: none"> <li>• leer atentamente todos los documentos antes de la puesta en servicio del equipo,</li> <li>• instalar, utilizar, efectuar el mantenimiento y reparar el equipo con arreglo a las recomendaciones de SAMES KREMLIN y a la normativa nacional y/o local,</li> <li>• cerciorarse de que los usuarios de este equipo han recibido la formación necesaria, han entendido perfectamente las normas de seguridad y las aplican.</li> </ul>	<p align="center"><b>IT</b></p> <p><b>Per un uso sicuro, vi invitiamo a:</b></p> <ul style="list-style-type: none"> <li>• leggere attentamente tutta la documentazione prima della messa in funzione dell'apparecchio,</li> <li>• installare, utilizzare, mantenere e riparare l'apparecchio rispettando le raccomandazioni di SAMES KREMLIN, nonché le normative nazionali e/o locali,</li> <li>• accertarvi che gli utilizzatori dell'apparecchio abbiano ricevuto adeguata formazione, abbiano perfettamente compreso le regole di sicurezza e le applichino.</li> </ul>	<p align="center"><b>PT</b></p> <p><b>Para uma utilização segura, é da sua responsabilidade:</b></p> <ul style="list-style-type: none"> <li>• Ler atentamente todos os documentos antes de pôr o equipamento em funcionamento,</li> <li>• Proceder à instalação, utilização, manutenção e reparação do equipamento de acordo com as preconizações de SAMES KREMLIN, bem como com outros regulamentos nacionais e/ou locais aplicáveis,</li> <li>• Assegurar-se que os utilizadores do equipamento foram devidamente capacitados, compreenderam perfeitamente e aplicam as devidas regras de segurança.</li> </ul>
<p align="center"><b>NL</b></p> <p><b>Voor een veilig gebruik dient u:</b></p> <ul style="list-style-type: none"> <li>• Lees alle documenten zorgvuldig door voordat u de apparaatuur in gebruik neemt,</li> <li>• het apparaat te installeren, gebruiken, onderhouden en repareren volgens de door SAMES KREMLIN gegeven aanbevelingen en overeenkomstig de nationale en/of plaatselijke reglementeringen,</li> <li>• zeker te stellen dat de gebruikers van dit apparaat zijn opgeleid, de veiligheidsregels perfect hebben begrepen en dat zij die ook toepassen.</li> </ul>	<p align="center"><b>SE</b></p> <p><b>För en säker användning av utrustningen ansvarar ni för följande:</b></p> <ul style="list-style-type: none"> <li>• Läs alla dokument noggrant innan utrustningen tas i bruk,</li> <li>• Läs Installera, använd, underhåll och reparera utrustningen enligt anvisningarna från SAMES KREMLIN och enligt nationella och/eller lokala bestämmelser.</li> <li>• Försäkra er om att användare av denna utrustning erhållit utbildning, till fullo förstått säkerhetsföreskrifterna och tillämpar dem.</li> </ul>	<p align="center"><b>FI</b></p> <p><b>Käytön turvallisuuden varmistamiseksi velvollisuutesi on:</b></p> <ul style="list-style-type: none"> <li>• Lue kaikki asiakirjat huolellisesti ennen laitteen käyttöönottoa.</li> <li>• Noudattaa laitteiston asennuksessa, käytössä, kunnossapidossa ja huollossa SAMES KREMLIN in suosituksia sekä kansallisia ja/tai paikallisia määräyksiä,</li> <li>• Varmistaa, että laitteiston käyttäjät ovat koulutettuja ja ymmärtävät täysin turvallisuusmääräykset ja miten niitä sovelletaan.</li> </ul>
<p align="center"><b>PL</b></p> <p><b>Dla zapewnienia bezpiecznego użytkowania na użytkownika spoczywa obowiązek:</b></p> <ul style="list-style-type: none"> <li>• Przed uruchomieniem urządzenia należy dokładnie przeczytać wszystkie dokumenty,</li> <li>• Instalowania, użytkowania, konserwacji i naprawy urządzenia zgodnie z zaleceniami firmy SAMES KREMLIN oraz z przepisami miejscowymi,</li> <li>• Upewnienia, że wszyscy przeszkoleni użytkownicy urządzenia zrozumieli zasady bezpieczeństwa i stosują się do nich.</li> </ul>	<p align="center"><b>CS</b></p> <p><b>Pro bezpečné používání jste povinni:</b></p> <ul style="list-style-type: none"> <li>• Před uvedením zařízení do provozu si pečlivě přečtěte všechny dokumenty,</li> <li>• Nainstalovat, používat, udržovat a opravovat zařízení v souladu s pokyny firmy SAMES KREMLIN a s národními a/nebo místními legislativními předpisy,</li> <li>• Ujistit se, že uživatelé tohoto zařízení byli vyškoleni, že dokonale pochopili bezpečnostní pravidla a že je dodržují.</li> </ul>	<p align="center"><b>SL</b></p> <p><b>Za varno uporabo ste dolžni:</b></p> <ul style="list-style-type: none"> <li>• pred začetkom uporabe opreme natančno preberite vse dokumente,</li> <li>• inštalirati, uporabljati, vzdrževati in popravljati opremo po določilih SAMES KREMLIN in v skladu z veljavnimi nacionalnimi in/ali lokalnimi predpisi,</li> <li>• poskrbeti, da so uporabniki te opreme ustrezno usposobljeni, poznajo varnostne predpise in da jih upoštevajo.</li> </ul>
<p align="center"><b>SK</b></p> <p><b>V záujme bezpečného je vašou povinnosťou:</b></p> <ul style="list-style-type: none"> <li>• pred uvedením zariadenia do prevádzky si pozorne prečítajte všetky dokumenty,</li> <li>• nainštalovať, používať, udržiavať a opravovať zariadenie v súlade s odporúčaniami spoločnosti SAMES KREMLIN a národnými a/alebo miestnymi predpismi,</li> <li>• uistiť sa, že používatelia tohto zariadenia boli zaškolení, riadne porozumeli pravidlám bezpečnosti a používajú ich.</li> </ul>	<p align="center"><b>HU</b></p> <p><b>A biztonságos használat érdekében az Ön felelőssége, hogy:</b></p> <ul style="list-style-type: none"> <li>• Olvassa el figyelmesen az összes dokumentumot, mielőtt a berendezést üzembe helyezi,</li> <li>• a berendezést a SAMES KREMLIN ajánlásainak valamint a nemzeti és/vagy helyi szabályozásoknak megfelelően helyezze üzembe, használja, tartsa karban és javítsa,</li> <li>• megbizonyosodjon róla, hogy a berendezés felhasználói képzettek, tökéletesen megértették és alkalmazzák a biztonsági előírásokat.</li> </ul>	<p align="center"><b>RO</b></p> <p><b>Pentru o utilizare sigură, este responsabilitatea dvs. să:</b></p> <ul style="list-style-type: none"> <li>• Citiți cu atenție toate documentele înainte de a pune echipamentul în funcțiune,</li> <li>• Instalați, utilizați, întrețineți și reparați echipamentul conform instrucțiunilor SAMES KREMLIN precum și reglementărilor naționale și/sau locale,</li> <li>• Vă asigurați că utilizatorii acestei echipament au fost instruiți, au înțeles perfect regulile de securitate și le aplică integral.</li> </ul>

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 / Deklaracija(e) o skladnosti na hrbtni strani tega dokumenta / Vyhlasenie/-a o zhode sa nachádzajú na zadnej strane dokumentu / A dokumentum hátlapján szereplő megfelelőségi nyilatkoz(ok) / Declarații de conformitate pe versoul acestui document



**DECLARATION D'INCORPORATION**  
**DECLARATION OF INCORPORATION**  
**EINBAUERKLÄRUNG**  
**DECLARACIÓN DE INCORPORACIÓN**  
**DICHIARAZIONE DI INCORPORAZIONE**  
**DECLARAÇÃO DE INCORPORAÇÃO**  
**INBOUWVERKLARING BETREFFENDE**  
**FÖRSÄKRAN FÖR INBYGGNAD**  
**PUOLIVALMISTEIDEN LIITTÄMISVAKUUTUS**  
**DEKLARACJA WŁĄCZENIA**  
**PROHLÁŠENÍ O ZABUDOVÁNÍ**  
**DEKLARACIJA O VGRADNJI**  
**VYHLÁŠENIE O ZAČLENENÍ**  
**BEÉPÍTÉSI NYILATKOZAT**  
**DECLARAȚIE DE ÎNCORPORARE**

Le fabricant / The manufacturer / Der Hersteller / El fabricante / Il produttore / O fabricante / De fabrikant / Tillverkare / Valmistaja / Producent / Výrobce / Proizvajalec / Výrobca / Gyártó / Fabricantul:	<b>SAMES KREMLIN SAS</b> 13, chemin de Malacher 38 240 - MEYLAN - FRANCE Tél. : 33 (0)4 76 41 60 60
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Déclare que sur la quasi-machine désignée ci-après / Herewith declares that the following partly completed machinery :

**ENSEMBLE D'AGITATION / AGITATOR UNIT / RÜHRANLAGE / CONJUNTO DE AGITACIÓN  
- CYCLIX II**

POUR FUTS DE 40 LITRES / FOR 40 L / 10.6 US GAL DRUMS / FÜR 40 LITRE-FASS / PARA RECIPIENTES DE 40 LITROS
POUR FUTS DE 200 LITRES / FOR 200 L / 52.8 US GAL DRUMS / FÜR 200 LITER-FASS / PARA RECIPIENTES DE 200 LITROS

Ont été appliquées les exigences essentielles de santé et de sécurité de la directive Machines 2006/42/CE ci-dessous / The essential health and safety requirements below of the Directive 2006/42/CE on Machinery have been applied

<b>1.1</b>	<b>Généralités / General remarks</b>
1.1.5	Conception de la machine en vue de sa manutention / Design of machinery to facilitate its handling
<b>1.2.4</b>	<b>Arrêt / Stopping</b>
1.2.4.1	Arrêt normal / Normal stop
<b>1.3</b>	<b>Mesures de protection contre les risques mécaniques / Protection against mechanical hazards</b>
1.3.4	Risques dûs aux surfaces, aux arêtes ou aux angles / Risks due to surfaces, edges or angles
1.3.7	Risques liés aux éléments mobiles / Risks related to moving parts
1.3.8.1	Eléments mobiles de transmission / Moving transmission parts
1.3.8.2	Eléments mobiles concourant au travail / Moving parts involved in the process
1.3.9	Risques dûs aux mouvements non commandés / Risks of uncontrolled movements
<b>1.5</b>	<b>Risques dûs à d'autres dangers / Risks due to other hazards</b>
1.5.5	Températures extrêmes / Extreme temperatures
1.5.7	Explosion
1.5.8	Bruit / Noise
1.5.9	Vibrations
1.5.15	Risque de glisser, de trébucher ou de tomber / Risk of slipping, tripping or falling
<b>1.6</b>	<b>Entretien / Maintenance</b>
1.6.1	Entretien de la machine / Machinery maintenance
<b>1.7</b>	<b>Informations / Information</b>
1.7.4.2	Contenu de la notice d'instructions / Contents of the instructions

La documentation technique pertinente a été constituée conformément à l'annexe VII, partie B / The relevant technical documentation was compiled as specified in annex VII, part B.

Cette quasi-machine est également conforme aux dispositions suivantes / That partly completed machinery is also in conformity with the provisions of

Directive ATEX / ATEX Directive / ATEX Richtlinie / Directiva ATEX / Direttiva ATEX / Direktiva ATEX / ATEX-Richtlijn / ATEX-direktivet / ATEX-direktivi / Dyrektywa ATEX / Směrnice ATEX / Direktiva ATEX / Smernica ATEX / ATEX-irányelv



II 2G c T5

EN 13463-5:2011 Protection par sécurité de construction "c" - Protection by constructional safety "c"

Procédure d'évaluation de la conformité : Module A Documentation technique (Annexe VIII) archivée par : / Conformity assessment procedure: Module A Technical documentation (ANNEX VIII) recorded by: / Verfahren zur Konformitätsbewertung: Modul A Technische Unterlagen (ANLAGE VIII) archiviert durch: / Procedimiento de evaluación de la conformidad: Módulo A Documentación técnica (ANEXO VIII) archivada por: / Procedura di valutazione della conformità: Modulo A Documentazione tecnica (ALLEGATO VIII) archiviata a cura di: / Procedimento de avaliação da conformidade: Módulo A Documentação técnica (ANEXO VIII) arquivada por: / Conformiteitsbeoordelingsprocedure: Module A Technische documentatie (BIJLAGE VIII) gearhiveerd door: / Förfarande för bedömning av överensstämmelse: Modul A Teknisk dokumentation (BILAGA VIII) arkiverad av: / Vaatimusten mukaisuusarviointimenetelmä: moduuli A Tekninen dokumentaatio (LIITE VIII) arkistoitu: / Procedura oceny zgodności: Modul A Dokumentacji technicznej (ZAŁĄCZNIK VIII) zarchiwizowane przez: / Postup posuzování shody: Modul A Technická dokumentace (PŘÍLOHA VIII) archivována: / Процедура оценки соответствия: Модуль A Техническая документация (ПРИЛОЖЕНИЕ VIII), архивированная:

APRAGAZ A.S.B.L CE0029. - Chaussée de Vilvorde, 156,  
B-1120 Bruxelles/Brussel - Belgique/Belgium

N° APRAGAZ 19 ATEX 0194

2014/34/UE

Cette quasi-machine ne doit pas être mise en service avant que la machine finale dans laquelle elle doit être incorporée ait été déclarée conforme à la directive Machines 2006/42/CE / This partly completed machinery must not be put into service until the final machinery in which it is to be incorporated has been declared in conformity with Directive 2006/42/CE on Machinery.

La société SAMES KREMLIN est autorisée à constituer la documentation technique / SAMES KREMLIN is allowed to compile the technical documentation.

SAMES KREMLIN s'engage à transmettre, à la suite d'une demande dûment motivée des autorités nationales, les informations pertinentes concernant la quasi-machine sous la forme la plus appropriée / SAMES KREMLIN undertakes to transmit, in response to a reasoned request by the national authorities, relevant information on the partly completed machinery in the most appropriate form.

Hervé WALTER

Directeur Recherche & Développement / Research & Development Director / Direktor für Forschung & Entwicklung / Director de Investigación y Desarrollo / Direttore Ricerca e sviluppo / Diretor de Pesquisa e desenvolvimento / Manager Onderzoek en Ontwikkeling / Direktör för Forskning och Utveckling / Johtaja tutkimus ja kehitys / Dyrektor ds. Badań i rozwoju / Ředitel výzkumu a vývoje / Direktor za raziskave in razvoj / Riaditeľ pre výskum a vývoj / Kutatási és Fejlesztési Igazgató / Director de cercetare 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 04/05/2020 - 05/04/2020



**DECLARATION UE DE CONFORMITE**  
**EU DECLARATION OF CONFORMITY**  
**EU- KONFORMITÄTSEKTLÄRUNG**  
**DECLARACIÓN UE DE CONFORMIDAD**  
**DICHIARAZIONE DI CONFORMITÀ UE**  
**DECLARAÇÃO UE DE CONFORMIDADE**  
**EU-KONFORMITEITSVERKLARING**  
**EU-FÖRSÄKRAN OM ÖVERENSSTÄMMELSE**  
**EU- VAATIMUKSEN MUKAISUUSVAKUUTUS**  
**DEKLARACJA ZGODNOŚCI UE**  
**EU PROHLÁŠENÍ O SHODĚ**  
**IZJAVA EU O SKLADNOSTI**  
**VYHLÁŠENIE 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:	<b>SAMES KREMLIN SAS</b> 13, chemin de Malacher 38 240 - MEYLAN - FRANCE Tél. : 33 (0)4 76 41 60 60
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**- CYCLIX II**

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POUR FUTS DE 200 LITRES / FOR 200 L / 52.8 US GAL DRUMS / FÜR 200 LITER-FASS / PARA RECIPIENTES DE 200 LITROS

Est conforme à la législation d'harmonisation de l'Union applicable suivante / Is in conformity with the relevant Union harmonisation legislation / Erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union / es conforme con la legislación de armonización pertinente de la Unión / è conforme alla pertinente normativa di armonizzazione dell'Unione / in overeenstemming met de desbetteffende harmonisatiewetgeving van de Unie / med den relevanta harmoniserade unionslagstiftningen / on asiaa koskevan unionin yhdenmukaistamislainsäädännön vaatimusten mukainen / jest zgodny z 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 ATEX / ATEX Directive / ATEX Richtlinie / Directiva ATEX / Direttiva ATEX / Diretiva ATEX / ATEX-Richtlijn / ATEX-direktivet / ATEX-direktivi / Dyrektywa ATEX / Směrnice ATEX / Direktiva ATEX / Smernica ATEX / ATEX-irányelv	<b>2014/34/UE</b>
 II 2G c T5	
EN 13463-5:2011 Protection par sécurité de construction "c" - Protection by constructional safety "c"	
Procédure d'évaluation de la conformité : Module A Documentation technique (Annexe VIII) archivée par : / Conformity assessment procedure: Module A Technical documentation (ANNEX VIII) recorded by: / Verfahren zur Konformitätsbewertung: Modul A Technische Unterlagen (ANLAGE VIII) archiviert durch: / Procedimiento de evaluación de la conformidad: Módulo A Documentación técnica (ALLEGATO VIII) archiviata a cura di: / Procedimento de avaliação da conformidade: Módulo A Documentação técnica (ANEXO VIII) arquivada por: / Conformiteitsbeoordelingsprocedure: Module A Technische documentatie (BIJLAGE VIII) gearhiveerd door: / Förfarande för bedömning av överensstämmelse: Modul A Teknisk dokumentation (BILAGA VIII) arkiverad av: / Vaatimusten mukaisuusarviointimenetelmä: moduuli A Tekninen dokumentaatio (LIITE VIII) arkistoitu: / Procedura oceny zgodności: Modul A Dokumentacji technicznej (ZAŁĄCZNIK VIII) zarchiwizowane przez: / Postup posuzování shody: Modul A Technická dokumentace (PŘÍLOHA VIII) archivována: / Процедура оценки соответствия: Модуль A Техническая документация (ПРИЛОЖЕНИЕ VIII), архивированная: APRAGAZ A.S.B.L CE0029. - Chaussée de Vilvorde, 156, B-1120 Bruxelles/Brussel - Belgique/Belgium	
N° APRAGAZ 19 ATEX 0194	

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

Hervé WALTER

Directeur Recherche & Développement / Research & Development Director / Direktor für Forschung & Entwicklung / Director de Investigación y Desarrollo / Direttore Ricerca e sviluppo / Diretor de Pesquisa e desenvolvimento / Manager Onderzoek en Ontwikkeling / Direktör för Forskning och Utveckling / Johtaja tutkimus ja kehitys / Dyrektor ds. Badań i rozwoju / Ředitel výzkumu a vývoje / Direktor za raziskave in razvoj / Riaditeľ pre výskum a vývoj / Kutatási és Fejlesztési Igazgató / Director de cercetare și dezvoltare



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HEALTH & SCIENCE  
GAST Group Ltd  
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**GAST  
JUN-AIR**<sup>®</sup>  
Gast Manufacturing, Inc.  
2300 M-139 Highway  
Benton Harbor, Michigan  
USA

### Declaration of Conformity

#### Konformitätserklärung

(according to EU Directive 2014/34/EU, Annex VIII)  
(im Sinne der Richtlinie 2014/34/EU, Anhang VIII)

declares in sole responsibility that the Air motors in category 2G and 2D that are listed below and that are subject to this declaration are meeting the requirements set forth in Directive 2014/34/EU

erklärt in alleiniger Verantwortung, dass die im Folgenden aufgelisteten Druckluftmotoren der Kategorie 2G und 2D, auf die sich diese Erklärung bezieht, übereinstimmen mit der Richtlinie 2014/34/EU

Motor types / Motortypen:

**MVP02Dx-yyy-yyyy-yy, MVP05Dx-yyy-yyyy-yy, MVP02Gx-yyy-yyyy-yy**

**x indicates standard model or customer specific**

**y indicates optional configurations not related to performance or safety**

Applicable standard: DIN EN 1127-1:2011, DIN EN ISO 80079-36:2016, DIN EN ISO 80079-37:2016

Angewandte Norm: DIN EN 1127-1:2011, DIN EN ISO 80079-36:2016, DIN EN ISO 80079-37:2016

The products are marked with the following characteristics:

Die Produkte sind mit folgender Kennzeichnung versehen:

CE  II 2 GD Ex h IIC T5 Gc Ex h IIIC T100°C Dc

GAST will archive the documents required according to 2014/34/EU Annex VIII at the following location: CSA (SIRA) Certification Service, EU Code 0518 :

GAST hinterlegt die gemäß 2014/34/EU Anhang VIII geforderten Unterlagen bei benannter Stelle: CSA (SIRA) Certification Service, EU-Kennnummer 0518

GAST, 2300 M-139, Benton Harbor, Michigan USA

July 28, 2017  
Place and date of issue  
Ort und Datum der Ausstellung



28 July 2017  
Assessing Engineer  
Gast/Jun-Air  
Redditch B98 7AS UK



28 July 2017  
Regulatory & Compliance Engineer  
Gast/Jun-Air  
Benton Harbor, Michigan, USA



<p align="center"><b>FR</b></p> <p><b>Pour une utilisation sûre, il est de votre responsabilité de :</b></p> <ul style="list-style-type: none"> <li>• Lire attentivement tous les documents avant la mise en service de l'équipement,</li> <li>• D'installer, d'utiliser, d'entretenir et de réparer l'équipement conformément aux préconisations de SAMES KREMLIN ainsi qu'aux réglementations nationales et/ou locales,</li> <li>• Vous assurez que les utilisateurs de cet équipement ont été formés, ont parfaitement compris les règles de sécurité et qu'ils les appliquent.</li> </ul>	<p align="center"><b>UK</b></p> <p><b>To ensure safe use of the machinery, it is your responsibility to:</b></p> <ul style="list-style-type: none"> <li>• Carefully read all documents before putting the machinery into service,</li> <li>• Install, use, maintain and repair the machinery in accordance with SAMES KREMLIN's recommendations and national and/or local regulations,</li> <li>• Make sure that the users of the machinery have received proper training and that they have perfectly understood the safety rules and apply them.</li> </ul>	<p align="center"><b>DE</b></p> <p><b>Eine sichere Nutzung setzt voraus, dass Sie :</b></p> <ul style="list-style-type: none"> <li>• Lesen Sie alle Dokumente sorgfältig durch, bevor Sie die Anlage in Betrieb nehmen,</li> <li>• die Anlage im Einklang mit den Empfehlungen von SAMES KREMLIN sowie mit den nationalen und/oder lokalen Bestimmungen installieren, verwenden, warten und reparieren,</li> <li>• sich vergewissern, dass die Nutzer dieser Anlage angemessen geschult wurden, die Sicherheitsbestimmungen verstanden haben und sie anwenden.</li> </ul>
<p align="center"><b>ES</b></p> <p><b>Para una utilización segura, será de su responsabilidad:</b></p> <ul style="list-style-type: none"> <li>• leer atentamente todos los documentos antes de la puesta en servicio del equipo,</li> <li>• instalar, utilizar, efectuar el mantenimiento y reparar el equipo con arreglo a las recomendaciones de SAMES KREMLIN y a la normativa nacional y/o local,</li> <li>• cerciorarse de que los usuarios de este equipo han recibido la formación necesaria, han entendido perfectamente las normas de seguridad y las aplican.</li> </ul>	<p align="center"><b>IT</b></p> <p><b>Per un uso sicuro, vi invitiamo a:</b></p> <ul style="list-style-type: none"> <li>• leggere attentamente tutta la documentazione prima della messa in funzione dell'apparecchio,</li> <li>• installare, utilizzare, mantenere e riparare l'apparecchio rispettando le raccomandazioni di SAMES KREMLIN, nonché le normative nazionali e/o locali,</li> <li>• accertarvi che gli utilizzatori dell'apparecchio abbiano ricevuto adeguata formazione, abbiano perfettamente compreso le regole di sicurezza e le applichino.</li> </ul>	<p align="center"><b>PT</b></p> <p><b>Para uma utilização segura, é da sua responsabilidade:</b></p> <ul style="list-style-type: none"> <li>• Ler atentamente todos os documentos antes de pôr o equipamento em funcionamento,</li> <li>• Proceder à instalação, utilização, manutenção e reparação do equipamento de acordo com as preconizações de SAMES KREMLIN, bem como com outros regulamentos nacionais e/ou locais aplicáveis,</li> <li>• Assegurar-se que os utilizadores do equipamento foram devidamente capacitados, compreenderam perfeitamente e aplicam as devidas regras de segurança.</li> </ul>
<p align="center"><b>NL</b></p> <p><b>Voor een veilig gebruik dient u:</b></p> <ul style="list-style-type: none"> <li>• Lees alle documenten zorgvuldig door voordat u de apparaatuur in gebruik neemt,</li> <li>• het apparaat te installeren, gebruiken, onderhouden en repareren volgens de door SAMES KREMLIN gegeven aanbevelingen en overeenkomstig de nationale en/of plaatselijke reglementeringen,</li> <li>• zeker te stellen dat de gebruikers van dit apparaat zijn opgeleid, de veiligheidsregels perfect hebben begrepen en dat zij die ook toepassen.</li> </ul>	<p align="center"><b>SE</b></p> <p><b>För en säker användning av utrustningen ansvarar ni för följande:</b></p> <ul style="list-style-type: none"> <li>• Läs alla dokument noggrant innan utrustningen tas i bruk,</li> <li>• Läs Installera, använd, underhåll och reparera utrustningen enligt anvisningarna från SAMES KREMLIN och enligt nationella och/eller lokala bestämmelser.</li> <li>• Försäkra er om att användare av denna utrustning erhållit utbildning, till fullo förstått säkerhetsföreskrifterna och tillämpar dem.</li> </ul>	<p align="center"><b>FI</b></p> <p><b>Käytön turvallisuuden varmistamiseksi velvollisuutesi on:</b></p> <ul style="list-style-type: none"> <li>• Lue kaikki asiakirjat huolellisesti ennen laitteen käyttöönottoa.</li> <li>• Noudattaa laitteiston asennuksessa, käytössä, kunnossapidossa ja huollossa SAMES KREMLIN in suosituksia sekä kansallisia ja/tai paikallisia määräyksiä,</li> <li>• Varmistaa, että laitteiston käyttäjät ovat koulutettuja ja ymmärtävät täysin turvallisuusmääräykset ja miten niitä sovelletaan.</li> </ul>
<p align="center"><b>PL</b></p> <p><b>Dla zapewnienia bezpiecznego użytkowania na użytkownika spoczywa obowiązek:</b></p> <ul style="list-style-type: none"> <li>• Przed uruchomieniem urządzenia należy dokładnie przeczytać wszystkie dokumenty,</li> <li>• Instalowania, użytkowania, konserwacji i naprawy urządzenia zgodnie z zaleceniami firmy SAMES KREMLIN oraz z przepisami miejscowymi,</li> <li>• Upewnienia, że wszyscy przeszkoleni użytkownicy urządzenia zrozumieli zasady bezpieczeństwa i stosują się do nich.</li> </ul>	<p align="center"><b>CS</b></p> <p><b>Pro bezpečné používání jste povinni:</b></p> <ul style="list-style-type: none"> <li>• Před uvedením zařízení do provozu si pečlivě přečtěte všechny dokumenty,</li> <li>• Nainstalovat, používat, udržovat a opravovat zařízení v souladu s pokyny firmy SAMES KREMLIN a s národními a/nebo místními legislativními předpisy,</li> <li>• Ujistit se, že uživatelé tohoto zařízení byli vyškoleni, že dokonale pochopili bezpečnostní pravidla a že je dodržují.</li> </ul>	<p align="center"><b>SL</b></p> <p><b>Za varno uporabo ste dolžni:</b></p> <ul style="list-style-type: none"> <li>• pred začetkom uporabe opreme natančno preberite vse dokumente,</li> <li>• inštalirati, uporabljati, vzdrževati in popravljati opremo po določilih SAMES KREMLIN in v skladu z veljavnimi nacionalnimi in/ali lokalnimi predpisi,</li> <li>• poskrbeti, da so uporabniki te opreme ustrezno usposobljeni, poznajo varnostne predpise in da jih upoštevajo.</li> </ul>
<p align="center"><b>SK</b></p> <p><b>V záujme bezpečného je vašou povinnosťou:</b></p> <ul style="list-style-type: none"> <li>• pred uvedením zariadenia do prevádzky si pozorne prečítajte všetky dokumenty,</li> <li>• nainštalovať, používať, udržiavať a opravovať zariadenie v súlade s odporúčaniami spoločnosti SAMES KREMLIN a národnými a/alebo miestnymi predpismi,</li> <li>• uistiť sa, že používatelia tohto zariadenia boli zaškolení, riadne porozumeli pravidlám bezpečnosti a používajú ich.</li> </ul>	<p align="center"><b>HU</b></p> <p><b>A biztonságos használat érdekében az Ön felelőssége, hogy:</b></p> <ul style="list-style-type: none"> <li>• Olvassa el figyelmesen az összes dokumentumot, mielőtt a berendezést üzembe helyezi,</li> <li>• a berendezést a SAMES KREMLIN ajánlásainak valamint a nemzeti és/vagy helyi szabályozásoknak megfelelően helyezze üzembe, használja, tartsa karban és javítsa,</li> <li>• megbizonyosodjon róla, hogy a berendezés felhasználói képzettek, tökéletesen megértették és alkalmazzák a biztonsági előírásokat.</li> </ul>	<p align="center"><b>RO</b></p> <p><b>Pentru o utilizare sigură, este responsabilitatea dvs. să:</b></p> <ul style="list-style-type: none"> <li>• Citiți cu atenție toate documentele înainte de a pune echipamentul în funcțiune,</li> <li>• Instalați, utilizați, întrețineți și reparați echipamentul conform instrucțiunilor SAMES KREMLIN precum și reglementărilor naționale și/sau locale,</li> <li>• Vă asigurați că utilizatorii acestei echipament au fost instruiți, au înțeles perfect regulile de securitate și le aplică integral.</li> </ul>

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**ELEVATEUR / SINGLE-POST RAM / PUMPENLIFT / ELEVADOR**  
**- CYCLIX II**

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POUR FUTS DE 200 LITRES / FOR 200 L / 52.8 US GAL DRUMS / FÜR 200 LITER-FASS / PARA RECIPIENTES DE 200 LITROS

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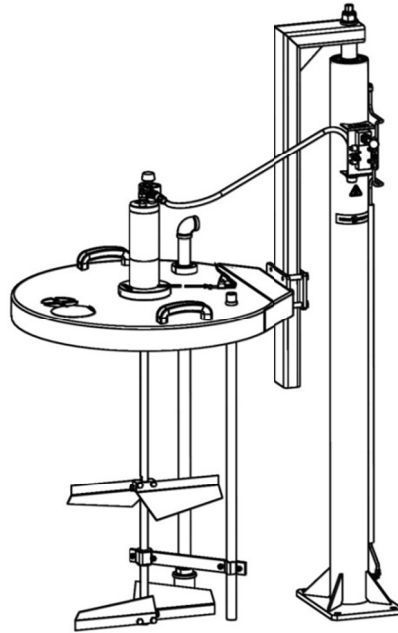
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Hervé WALTER

Directeur Recherche & Développement / Research & Development Director / Direktor für Forschung & Entwicklung / Director de Investigación y Desarrollo / Direttore Ricerca e sviluppo / Diretor de Pesquisa e desenvolvimento / Manager Onderzoek en Ontwikkeling / Direktör för Forskning och Utveckling / Johtaja tutkimus ja kehitys / Dyrektor ds. Badań i rozwoju / Ředitel výzkumu a vývoje / Direktor za raziskave in razvoj / Riaditeľ pre výskum a vývoj / Kutatási és Fejlesztési Igazgató / Director de cercetare și dezvoltare



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# **CYCLIX II**

## **200 L / 52.8 US gal**

**Equipment reference**

**154 261 100**

**User manual 582012110**

2020-05-28

Index A

Translation from the original manual

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**SAMES KREMLIN SAS**



13 Chemin de Malacher  
38240 Meylan



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



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**Evolution table  
of the document**

Recording revisions				
Editor	Object	Revision	Date	Modified by
C. HUSSON	Update	A	18/02/2020	

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Dear customer, you have just purchased your new equipment and we thank you for it.

We have taken the utmost care, from design to manufacture, so that this equipment gives you complete satisfaction.

For a good use and an optimal availability, we invite you to read this manual carefully before using your equipment.

---

## **Guarantee**

We reserve the right to make any changes or improvements even after receipt of an order without being able to attribute a non-compliance to the descriptions contained in the instruction manuals and selection guides.

Our equipment is checked and tested in our workshops before shipment.

To be valid, any complaint concerning a material will have to be formulated to us in writing within 10 days of the delivery.

SAMES KREMLIN equipment, equipped with its original identification plates, has a one-year warranty or 1800H of operation (first term reached) from the date of ex-factory against any defect of material or defect of it is up to us to see and appreciate.

The warranty excludes wear parts, deterioration or wear resulting from abnormal or unscheduled use by SAMES KREMLIN, failure to observe instructions for proper operation or lack of maintenance.

The warranty is limited to the repair or exchange of parts returned to our factory and recognized as defective by us and does not cover the listed wear parts or not.

Any costs resulting from an operating outage can not be charged to us. The costs of return to our workshops are the responsibility of the customer.

An intervention can be carried out on site at the customer's request.

In this case, the transportation and accommodation costs of the technician (s) will remain the responsibility of the applicant.

Any changes made to our equipment without our consent will void the warranty.

Our guarantee is limited to that of the suppliers of materials which enter in the composition of our sets.

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## 1 Directives and standards applied

### List of directives applied

- 2006/42/EC Machinery / partly completed machinery
  - 2014/34/EU Explosive atmospheres
  - 2011/65/EU RoHS Restriction of the use of certain hazardous substances in electrical and electronic equipment
  - 2012/19/UE Waste electrical and electronic equipment (WEEE)
  - 1907/2006/EC Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
  - 2016/425 On personal protective equipment
-

## 2 Meaning of the pictograms

 Danger, general warning sign (user)	 Danger : high pressure	 Explosive materials	 Danger : electricity
 Toxic material	 Corrosive substance	 Harmful or irritating substances	 Danger pinching, crushing
 Risks of product emanation	 Danger : hot parts or surfaces	 Automatic start-up	 Danger : flammability risks
 General mandatory action sign	 Grounding	 Refer to instruction manual / booklet	 Wear protective gloves
 Wear a face shield	 Wear ear protection	 Wear respiratory protection	 Wear foot protection
 Wear protective clothing	 Wear a face shield	 Glasses required	 Waste electrical and electronic equipment

---

### 3 Overview



Read all operating instructions and device labels carefully before putting the equipment into service.

Personnel using this equipment must have been trained.

The workshop manager must ensure that the operators have fully understood all the instructions and safety rules of this equipment and other elements and accessories of the installation.

Misuse or operation can cause serious injury. This material is for professional use only. It must be used only for the purpose for which it was intended.

Do not modify or transform the material. Parts and accessories must only be supplied or approved by SAMES KREMLIN.

The equipment must be checked periodically. Defective or worn parts must be replaced.

Never exceed the maximum working pressures of the equipment components.

Always respect the laws in force regarding security, fire, electricity of the destination country of the equipment.

Only use products or solvents compatible with the parts in contact with the product (see product manufacturer's technical data sheet).

---

### 4 Liability of the equipment operator



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

Never modify the equipment. The parts and accessories must be supplied by SAMES KREMLIN and must be regularly inspected. Defective or worn parts must be replaced.

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## 5 Used products

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

SAMES KREMLIN can not be held liable for :

- compatibility of wetted parts,
- risks to staff and the surroundings,
- for worn or defective parts, for faulty equipments or units, or the quality of final product.

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

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

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## 6 Operational control requirements of the equipment operator







Only trained operators can use the equipment.



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

---

## 7 Personal Protective Equipment (PPE)

Personal protective equipment is a device intended to be worn or held by a person in order to protect that person against one or more risks likely to threaten his or her health and safety.

<p><b>Protective clothing</b></p>	 <p>The protective clothing made available to the workers must comply with the regulations on the design of personal protective equipment and therefore must bear the CE mark. The CE mark certifies that the PPE complies with the requirements of the European Directive 2016/425 on personal protective equipment. <b>This personal protective equipment is referenced in the SAMES KREMLIN range catalogues.</b></p>
<p><b>Protective gloves</b></p>	 <p>Protective gloves are personal protective equipment (PPE) intended to be worn on the hands to prevent handling risks (abrasion, burns, cuts, crushing, irritations, thermal risks).</p>
<p><b>Ear protection</b></p>	 <p>Hearing protection reduces the intensity of perceived noise, mainly in a work situation.</p>
<p><b>Foot protection</b></p>	 <p>Safety shoes are shoes designed to protect the feet, or even the ankles and calves, against various electrical, chemical, mechanical and thermal risks.</p>
<p><b>Glasses protection</b></p>	 <p>Protective eyewear is a form of eye protection that consists of closed goggles that enclose the eye area and are made of a material that is resistant to impact, splash or pressure.</p>
<p><b>Face shield</b></p>	 <p>The protective visor can refer to: a face shield, often integrated into a helmet, and intended to protect the face from splashes or radiation.</p>

<p><b>Face shield</b></p>	 <p>The industrial safety helmet, also known as a safety helmet or worksite helmet, is a type of helmet used primarily on construction sites and other hazardous work areas to protect the wearer's head from injuries caused by falling objects or impacts with others.</p>
<p><b>Respiratory protection</b></p>	 <p>There are two main categories of breathing apparatus :</p> <ul style="list-style-type: none"> <li>• filtering devices,</li> <li>• insulating devices.</li> </ul> <p>Filtering devices are masks equipped with filters that retain gases or dust and purify the air breathed by the operator.</p> <p>Isolation devices are masks supplied with air or oxygen from an uncontaminated source so that the operator is isolated from the polluted area.</p> <p><b>This personal protective equipment is referenced in the SAMES KREMLIN range catalogues.</b></p>

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## **8 Declaration of conformity**

Refer to the existing declaration delivered with the product.

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## 9 Safety instructions

### 9.1 Personal safety

---

#### Security devices

##### Attention

Guards (motor cover, coupling guards, housings,...) are set up for safe use of the equipment.

The manufacturer can not be held responsible for any bodily injury as well as failures and / or damage to the equipment resulting from the destruction, the occultation or the total or partial removal of the protectors.

Never exceed the maximum working pressures of the equipment components.

---

#### Danger of pressure



Safety requires that a **decompressed air** shut off valve must be mounted on the pump motor supply circuit to allow trapped air to escape when the supply is shut off.

Without this precaution, the residual air from the engine may cause the motor pump to operate and cause a serious accident.

Similarly, a **product purge valve** must be installed on the product circuit so that it can be purged (after shutting off engine air and decompressing it) before any intervention on the equipment. These valves should remain closed for air and open for the product during the procedure.

---

**Injection hazards**



“HIGH PRESSURE” technology requires the utmost care.

Operation can cause dangerous leaks. There is a risk of product injection into exposed parts of the body, which can lead to serious injury and the risk of amputation:

- ✓ An injection of product into the skin or other parts of the body (eyes, fingers ...) must be treated urgently by appropriate medical care.
- ✓ Do not look at the gun nozzle when it is under pressure.
- ✓ Never direct the jet to another person.
- ✓ Never attempt to stop the jet with the body (hands, fingers ...) or with rags or similar.

**Fire hazards, explosion, electric arc, static electricity**



Improper grounding, insufficient ventilation, open flames or sparks can cause an explosion or fire which could result in serious injury.

To avoid these risks, especially when using pumps, it is imperative:

- ✓ To connect the equipment, the parts to be treated, the cans of products and cleaners to the ground,
- ✓ To ensure good ventilation,
- ✓ Keep the work area clean and free of rags, papers, solvents,
- ✓ Do not operate electrical switches in the presence of vapors or during removal,
- ✓ Immediately stop the application in the presence of arcs,
- ✓ Store all liquids outside the work areas.
- ✓ Use products whose flash point is as high as possible to avoid any risk of formation of flammable gases and vapors (consult the product safety data sheets).
- ✓ To equip the drums with a lid to reduce the diffusion of gases and vapors in the cabin.
- ✓ It is forbidden to pump explosive materials

## Hazards of toxic products



Toxic products or vapors can cause serious injury through contact with the body, in the eyes, under the skin, but also by injection or inhalation, it is imperative :

- ✓ to know the type of product used and the dangers it represents,
- ✓ store the products to be used in appropriate areas,
- ✓ contain the product used in the application in a container designed for that purpose,
- ✓ evacuate the products in accordance with the legislation of the country where the equipment is used,
- ✓ to wear protective clothing designed for that purpose,
- ✓ wearing goggles, hearing protectors, gloves, shoes, coveralls and masks for the respiratory tract.



### Attention

**The use of halogenated hydrocarbon solvents and products containing these solvents in the presence of aluminum or zinc is prohibited.**

**Failure to follow these instructions exposes the user to the risk of explosion resulting in serious injury or death.**

---

## 9.2 Integrity of the material

### **Material recommendations**



Protectors are put in place for safe use of the equipment.

Examples :

- ✓ Motor covers,
- ✓ Carters.

The manufacturer can not be held responsible in case of :

- ✓ Bodily injury,
  - ✓ As well as breakdowns and / or damage to the equipment resulting from the destruction, the occultation or the total or partial withdrawal of the protectors.
-

## Pump

### Recommendations for pumps



- ✓ It is essential to read the compatibilities of the motors and pumps before coupling as well as the special safety instructions.
- ✓ These instructions are on the pump instruction manuals.
- ✓ The pneumatic motor is intended to be coupled to a pump. Never modify the coupling system.
- ✓ Keep hands clear of moving parts.
- ✓ The parts constituting this movement must be kept clean.
- ✓ Before starting up or using the motor pump, carefully read the DECOMPRESSION PROCEDURE.
- ✓ Check that the decompression and purge air valves are working properly.
- ✓ It is forbidden to operate the pump without its protective motor cover – risk of crushing
- ✓ It is forbidden to disassemble the safety valve during the operation of the pump - check that the air regulator and pressure gauge are working once a month.
- ✓ Only use genuine SAMES KREMLIN accessories and spare parts designed to withstand the pump's operating pressures.

### Booster phase of the pump

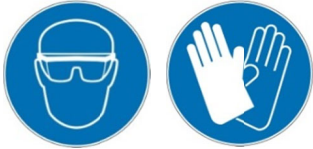


- ✓ Mandatory wearing of PPE (glasses + gloves + safety shoes).

### Feeding cycle

- ✓ The booster cycle must be at a maximum of 1 bar / 14.5 psi at the gauge of the air equipment, keeping the gun open. Progressive manual mounting to the air regulator.

**Paint phase pump and pressure gun phase**



- ✓ Mandatory wearing of PPE during this phase of painting where the pump and the gun are under pressure.
- ✓ Do not look at the gun nozzle when it is under pressure.
- ✓ Rinse at a maximum of 1 bar / 14.5 psi at the pressure gauge of the air equipment (variable pressure depending on the length of the pipes).

**Rinsing the pump**



- ✓ Wearing PPE (glasses + gloves + safety shoes).
- ✓ Do not look at the gun nozzle when it is under pressure
- ✓ Rinse at a maximum of 1 bar / 14.5 psi at the pressure gauge of the air equipment (variable pressure depending on the length of the pipes).

**Defusing the pump**



- ✓ PPE port mandatory.

**Risk of fluid section heating during defusing**



- ✓ Risk of overheating of the fluid section in case of defusing.

**Mass cable**



- ✓ It is mandatory to connect the pump to earth. The canes are conductive.

---

## Hoses

Recommendations for hoses.

- ✓ Keep hoses away from traffic areas, moving parts and hot areas.
  - ✓ Never subject product hoses to temperatures above 60 ° C / 140° F or below 0 ° C / 32° F.
  - ✓ Do not use hoses to pull or move equipment.
  - ✓ Tighten all connections and hoses and connectors before commissioning the equipment.
  - ✓ Check hoses regularly, replace them if damaged.
  - ✓ Never exceed the maximum operating pressure stated on the hose (MWP).
  - ✓ For fitting the hoses and gun: PPE is mandatory.
  - ✓ Tighten to block stop. (Pipes + Gun)
-

---

## Products implemented

Given the diversity of the products implemented by the users and the impossibility of listing all the characteristics of the chemical substances, their interactions and their evolution over time SAMES KREMLIN can not be held responsible:

- ✓ the poor compatibility of materials in contact.
- ✓ inherent risks to staff and the environment.
- ✓ wear and tear, maladjustment, malfunction of equipment or machines and the quality of the finished product.

The user will have to identify and prevent the potential dangers inherent to the implemented products such as:

- ✓ toxic vapors.
- ✓ fire.
- ✓ explosions.

It will determine the risks of immediate reactions or due to repeated exposures to the staff.

SAMES KREMLIN declines any responsibility, in case of:

- ✓ bodily or psychic injuries.
  - ✓ direct or indirect material damage due to the use of chemical substances.
-

## 10 Environment

The equipment must be installed on a horizontal, stable and flat ground (eg concrete slab).

Non-moving equipment must be fixed to the ground by suitable fasteners (spit, screws, bolts, ...) to ensure their stability during use.

To avoid risks due to static electricity, the equipment and its components must be grounded.



- ✓ **For pumping equipment** (pumps, elevators, chassis, etc.), a 2.5 mm section wire is attached to the equipment. Use this wire to connect the equipment to the general "earth". In severe environments (mechanical protection of the ground wire, vibrations, moving equipment, etc.) where damage to the grounding function is likely, the user will have to replace the wire of 2, 5 mm supplied, by a device more adapted to its environment (wire of greater section, braid of mass, fixing by lug with eyelet ...).
- ✓ Have the earth continuity checked by a qualified electrician. If earth continuity is not assured, check terminal, wire and grounding point. Never operate the equipment without solving this problem.
- ✓ The gun must be "grounded" through the air hose or fluid hose. In the case of spraying with a pistol equipped with a bucket, the air hose must be conductive.
- ✓ The materials to be painted must also be "grounded" by means of clamps with cables or, if they are suspended, by means of hooks which must remain permanently clean.

**Note: all objects in the work area must also be grounded.**

- ✓ **Do not store** more flammable products than necessary inside the work area.
- ✓ These products must be stored in **approved containers** and grounded.
- ✓ Use only grounded **metal buckets** for the use of rinse solvents.
- ✓ **Cartons and papers are to be banned.** Indeed they are very bad conductors, even insulators.

**Material marking**



Each device is equipped with a sign plate with the name of the manufacturer, the reference of the device, important information for the use of the device (pressure, power, ...) and sometimes against the pictogram shown below.

The equipment is designed and manufactured with high quality materials and components that can be recycled and reused.

European Directive 2012/19 / EU applies to all devices marked with this logo (crossed out bin). Find out about the collection systems available for electrical and electronic devices.

Comply with the rules in your area and **do not dispose of old appliances with household waste.** Proper disposal of this old device will help prevent adverse effects on the environment and human health.

## 11 Specific safety instructions



**Before operating the equipment, please ensure that the operators have been trained to use the equipment correctly.**

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

Any improper installation can lead the operator to dangerous conditions.

**Wearing PPE (glasses + gloves + safety shoes + mask + hearing protection).**



The working area must be correctly ventilated. Do not stay in front of the exhaust.

**Do not supply the equipment with air pressures other than the ones recommended.** Damage can occur if you use the equipment with speeds other than the ones recommended.

NOTA : you must lubricate the motor of the agitator. Dirt due to oil can be present on the cover. To avoid this, mount a grease recovery assembly to the motor exhaust (see Spare parts - Option).

Do not modify the hoses.



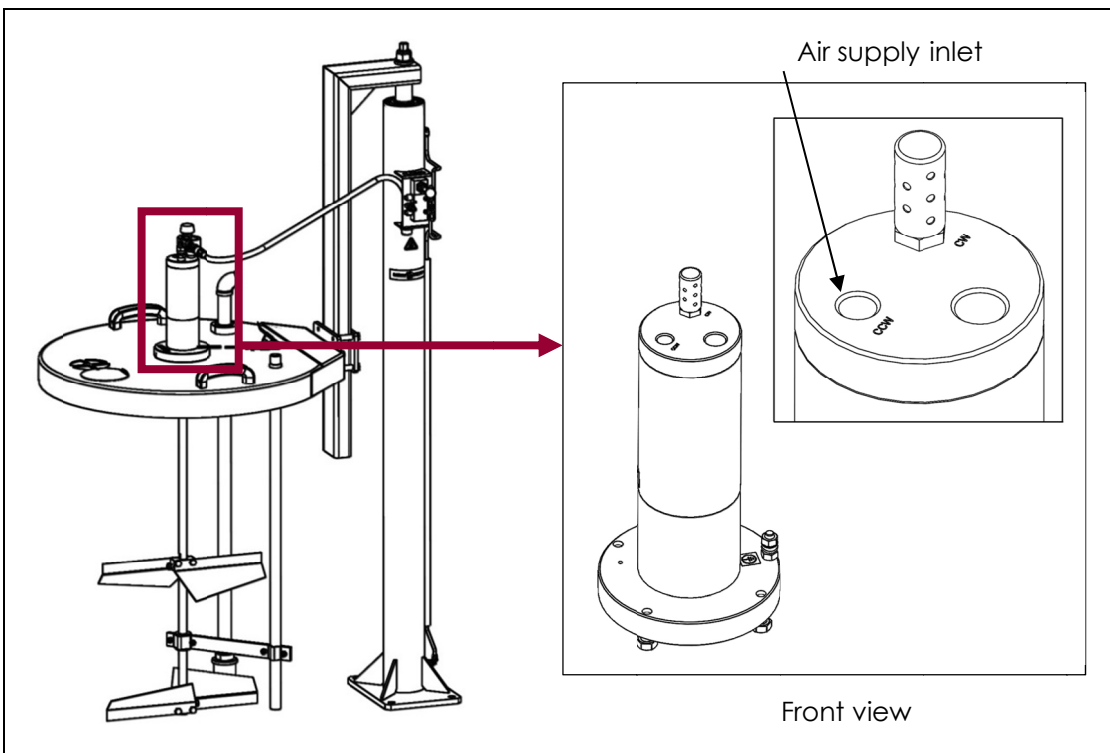
**Keep away hands and fingers from the blades of the agitator. Do not operate the blades out of the drum. Serious injuries can occur (cuts).**



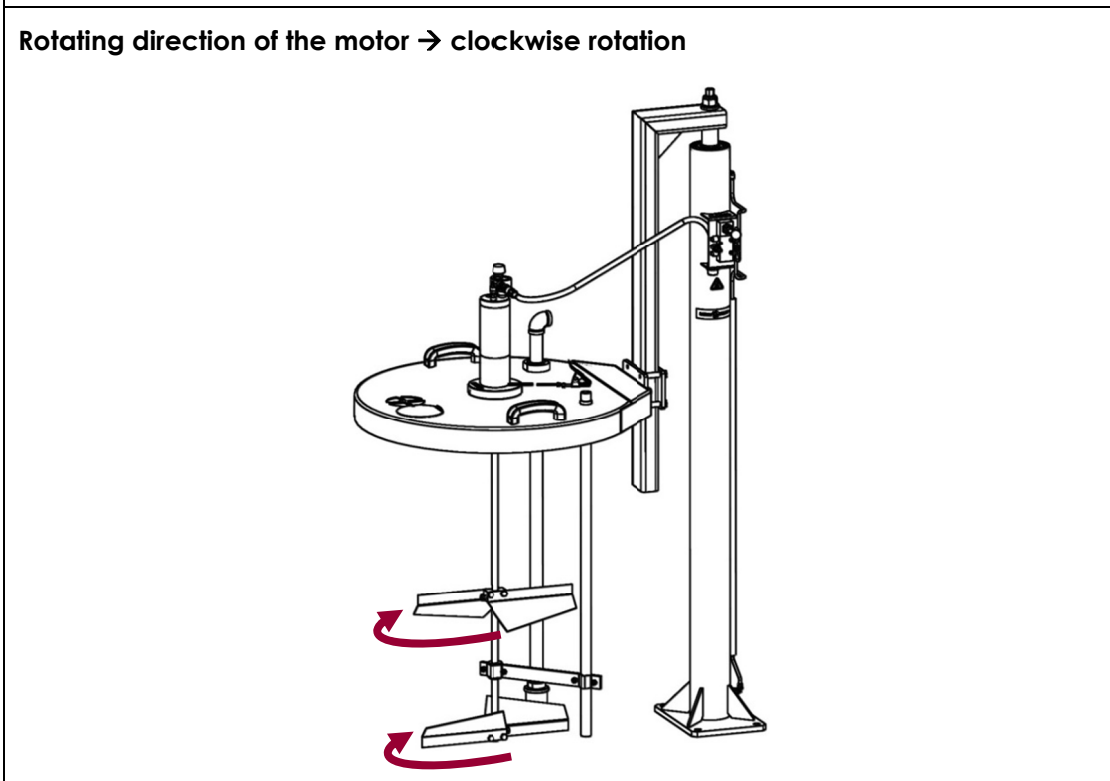
**Keep a sufficient gap between the bottom of the drum and the blades of the agitator to avoid frictions and sparks.**

Please ensure that the air motor is mounted in the correct orientation to avoid any damage.

The exhaust ports are marked with CW and CCW symbols. CW designates clockwise rotation, CCW counter-clockwise rotation.



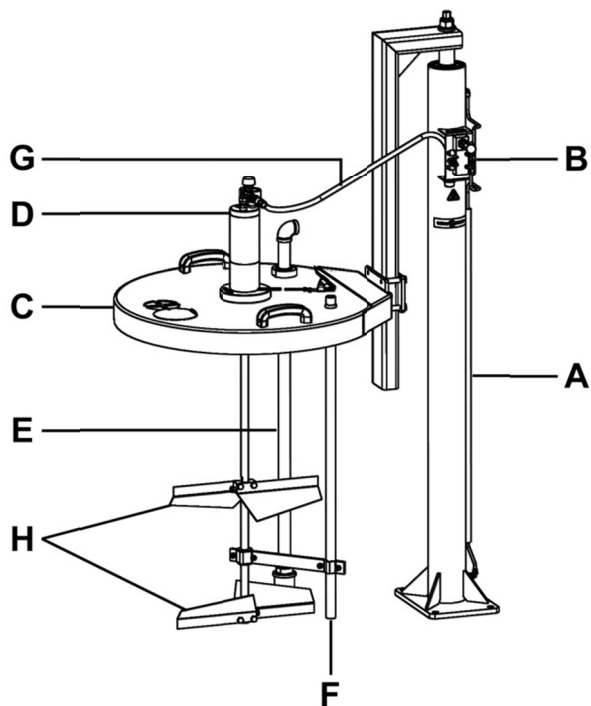
Rotating direction of the motor → clockwise rotation



## 12 Presentation of the material

### 12.1 Complete system

### 12.2 Generic presentation visual



Ind	Description
A	Single-post ram
B	Single-post ram control
C	Cover
D	Agitator assembly
E	Suction rod
F	Return rod
G	Air hose with quick release fitting
H	Propeller blades

---

**Context of use**

The agitation units on ram are designed to be installed on drums, model 200 L / 52.8 US gal. They are designed to ensure the homogenization and to bring liquids or semi liquids products the drums contain.

Each assembly consists of a ram, a cover fitted with an agitator, a suction rod and a return-rod.

The ram makes easier the installation and the replacement of the drum.

---


## 13 Identification

### 13.1 Description of the label marking

#### Principles



The agitation units are designed to be installed in a spray booth.

This equipment complies with the following provisions :

- ✓ Machinery Directive (2006/42/EC),
- ✓ ATEX Directive (2014/34/UE :  II 2 G - group II, class 2, gas).

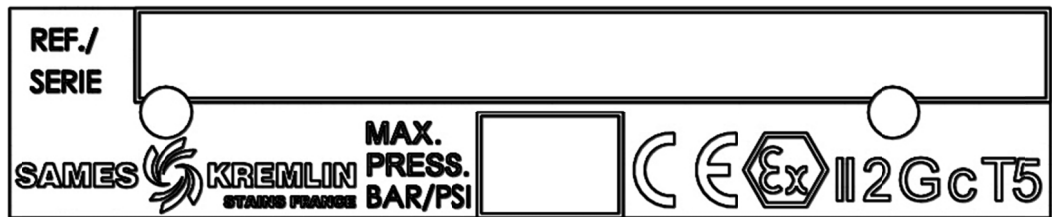
For the single-post ram :





Description	
<b>SAMES KREMLIN</b>	Name of the manufacturer
<b>CE</b>	<b>CE</b> : European conformity
	 : For use in explosive area
<b>II 2 G c</b>	<p><b>II</b> : group II    <b>2</b> : class 2</p> <p>Surface equipment meant to an area in which there is an explosive atmosphere with an excessive mixture of air, gases and vapours which can occasionally build up during normal operation.</p> <p><b>G</b> : gas</p> <p><b>c</b> : Protection by constructional safety</p>
<b>REF.</b>	Part number of the unit
<b>Serie</b>	Number given by SAMES KREMLIN. The two first numbers indicate the manufacturing year.
<b>MAX. PRES. (BAR/PSI)</b>	Maximum pressure

Operating maximum temperature rise :  $\Delta T \leq 5^\circ \text{C}$

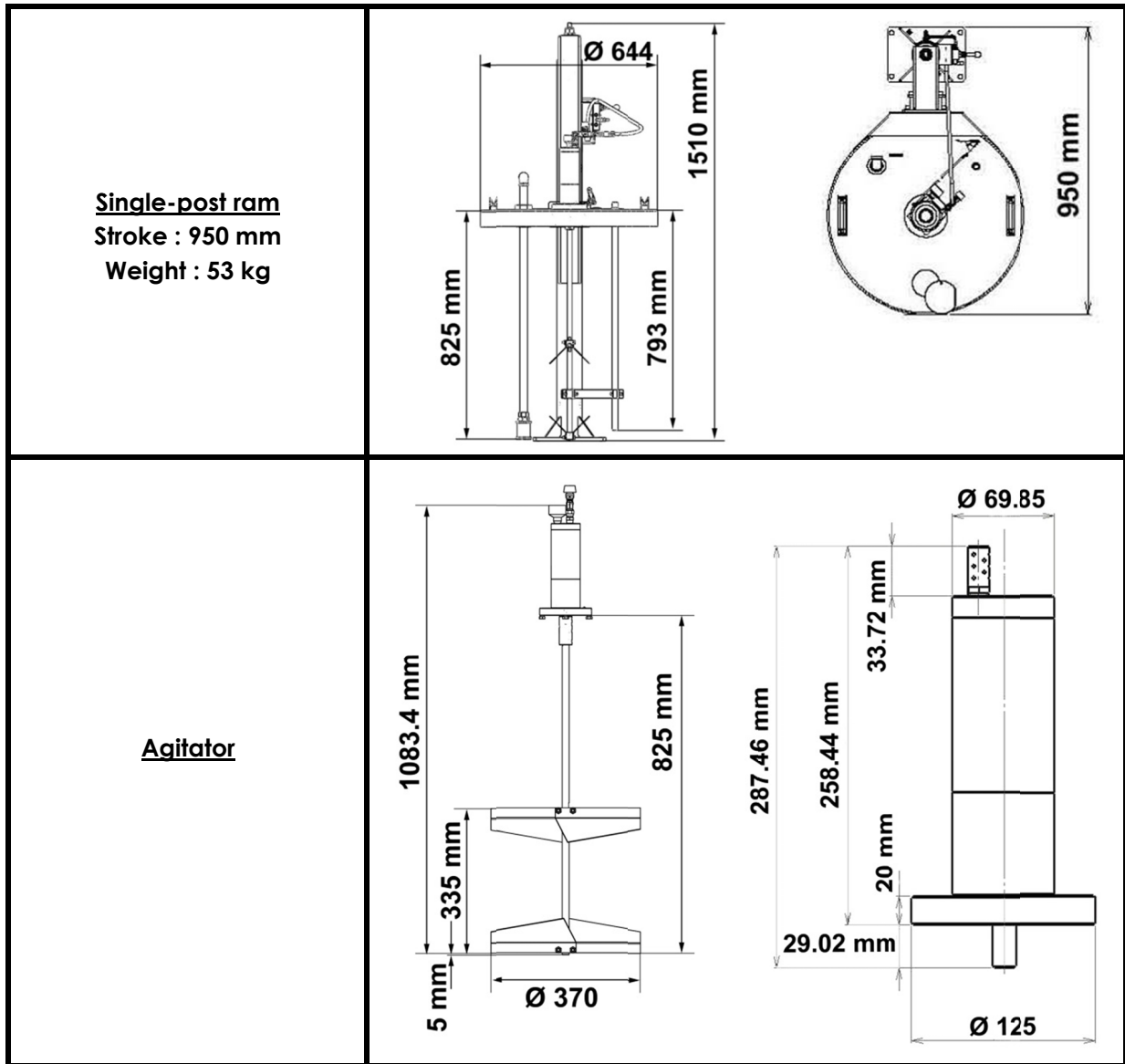
For the agitator motor :



Description	
<b>SAMES KREMLIN</b>	Name of the manufacturer
<b>CE</b>	<b>CE</b> : European conformity
	 : For use in explosive area
<b>II 2 G c T5</b>	<p><b>II</b> : group II    <b>2</b> : class 2</p> <p>Surface equipment meant to an area in which there is an explosive atmosphere with an excessive mixture of air, gases and vapours which can occasionally build up during normal operation.</p> <p><b>G</b> : gas</p> <p><b>c</b> : Protection by constructional safety</p> <p><b>T5</b> : Surface maximum temperature = 100° C / 212° F</p>
<b>REF.</b>	Part number of the unit
<b>Serie</b>	Number given by SAMES KREMLIN. The two first numbers indicate the manufacturing year.
<b>MAX. PRES. (BAR/PSI)</b>	Maximum pressure

## 14 Technical features

### 14.1 Dimension of the agitation unit and of the agitator



### 14.2 Noise level

Noise level : 76.2 dB(A)\*

\* With plug, model 3/8NPT and muffler, model 1/4 NPT

### 14.3 Technical features of the agitator motor

Version	200 L / 52.8 US gal
#	146 020 450
Weight (kg)	3.9
Maximum power (k.W)	0.75
Maximum pressure (bar / psi)	6.9 / 100
Maximum speed of the propellers (tr/min)	150
Stop stroke (N.m)*	37
Torque 100tr/min (N.m)*	34
Air consumption (l/s)	12

\* Torque given for an air equal to 6 bar / 87 psi

### 14.4 Operating conditions

Ambient range temperature : from + 1° to + 40° C / from + 33.8° to + 104° F

Maximum fluid temperature : 60° C / 140° F



The maximum air supply pressure is 6 bar / 87 psi. Do not run the agitator at high speed.

Do not run the equipment with no load. It can lead to a deterioration of the paint, vibrations and an early wear of the parts.



Keep away hands and fingers from the blades of the agitator. Do not operate the blades out of the drum. Serious injuries can occur (cuts).

The equipment is designed for a set number of propellers (2 propellers for the 200L / 52.8 US gal version).

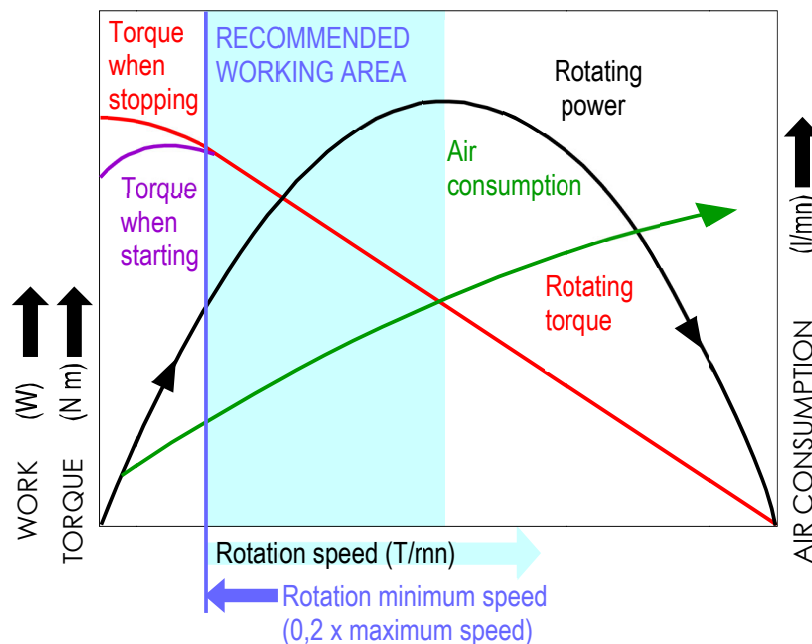
Do not install more propellers than provided.



**Keep a sufficient gap between the bottom of the drum and the blades of the agitator to avoid frictions and sparks.**

### 14.4.1 Curves of performances

The following curves indicate the ratio of 'torques / powers / rotation speed and air consumption' for a regular air supply pressure.



#### Rotation

We advise you not to exceed the maximum speed indicated to ensure a longer motor life time.

A speed lower than the minimum indicated will not give constant results.

#### Torque and rotating speed

The number of turns decreases when the torque increases (torque and rotation are inversely proportional).

#### Power

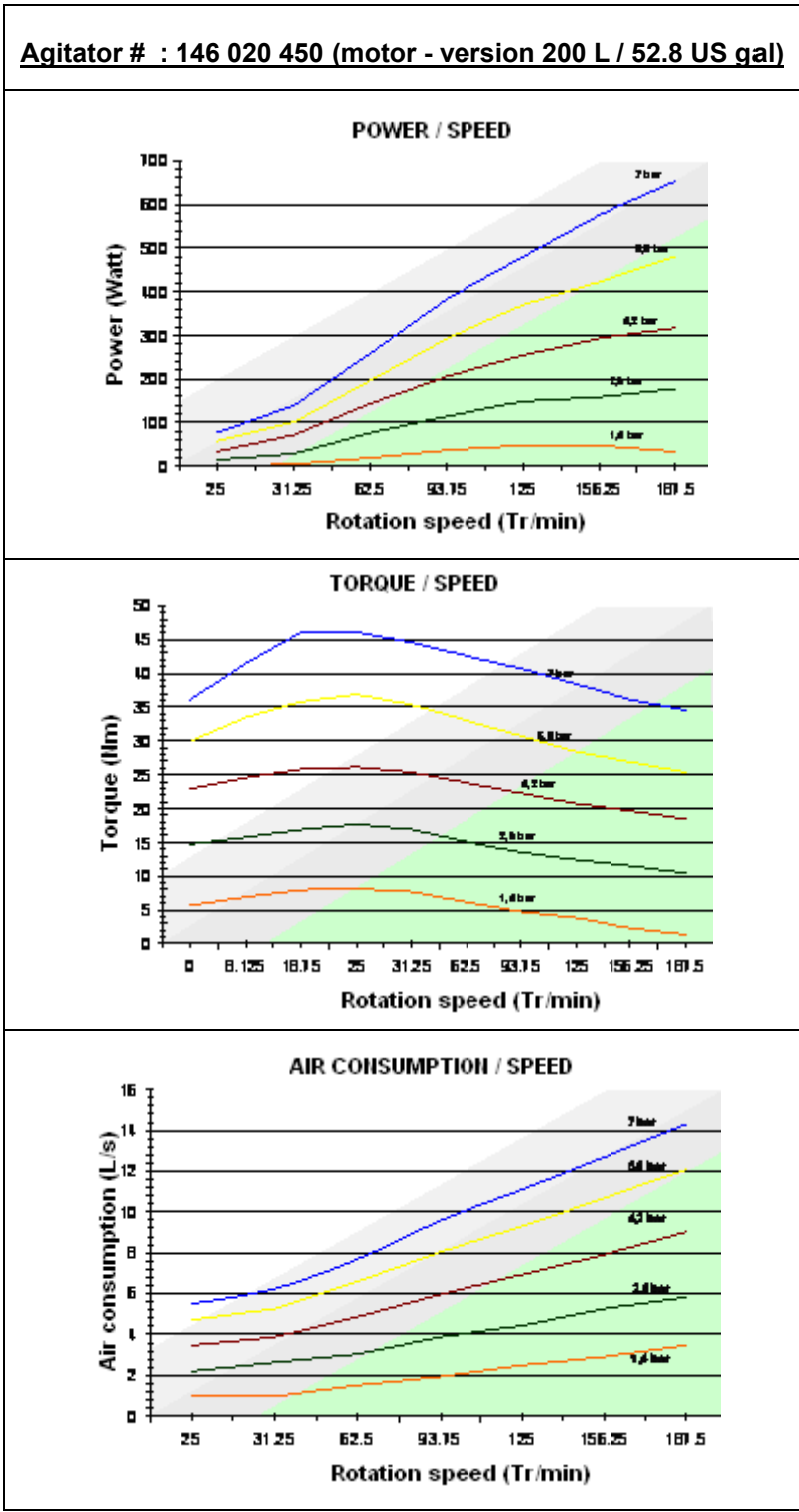
You will get maximum power from the power running at intermediate speeds (between minimum and maximum). It is the most economical way to use the agitator.

#### Air consumptions

It is proportional to the effort required by the motor.

For your information : 1MPa = 10 bar / 145 psi

### 14.5 Air consumption of the agitator motor



## 14.6 Connection

### 14.6.1 Grounding



The motor is fitted with an earth cable. Connect the other end to a safe earth.

The foot of the elevator is fitted with a threaded rod. You can connect it to a safe ground.

### 14.6.2 Connection to the compressed air supply



Install a filter and a lubricator on the air supply of the agitator.

To ensure a correct operating and an optimum working life of the agitator, the supply air must be clean (without water), filtered and lubricated.

➡ Install an FRL on the air supply of the agitator.

Air fitting 1/4" G

Level of filtration required : 5 µm

Connect the installation to the compressed air network (maximum 6 bar / 87 psi).

Adjust the lubricator to get a flow of one drop / minute when high speed or constant operating.

**Nota - For agitation unit on ram :**

The air supply to the agitator is via a hose fitted with a quick release fitting that can be connected to the elevator on motor according to the working stage.

⇒ When you have to rise or lower the cover, the air hose must be connected to the elevator, there is no air on the motor of the agitator.

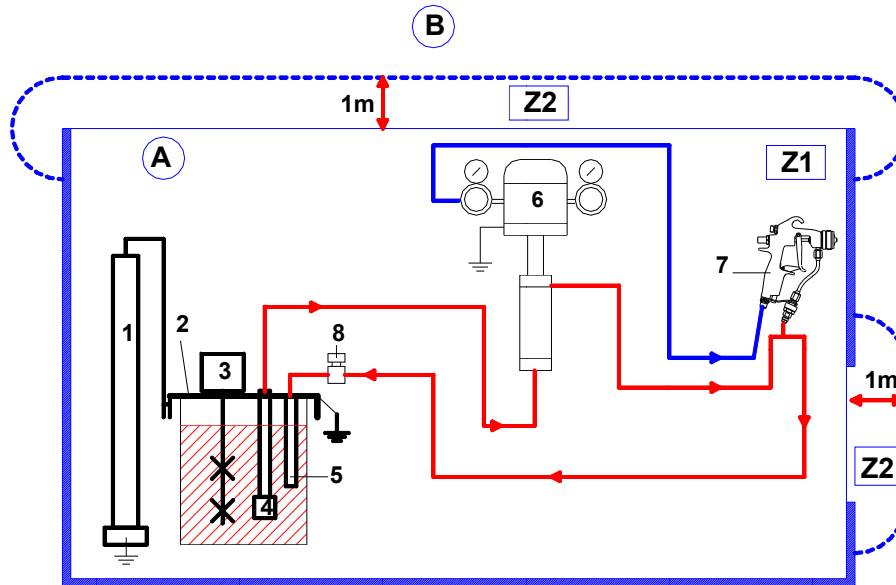
⇒ When the air hose is connected to the agitator motor and is in operation, you cannot rise or lower the cover.

### 14.6.3 Fluid connection

Suction rod : Elbow, model F 3/4"G

Return rod : Male 1/2"

### 14.7 Installation diagram



Ind.	Description
A	Explosive area Area 1 (Z1) or area 2 (Z2) : spray booth
B	Non explosive area
1	Elevator
2	Cover with earth cable
3	Agitator
4	Suction rod
5	Return rod
6	Pump (*)
7	Gun (*)
8	Circulating valve or back pressure regulator (*)

\* not provided



The 1 m / 39.37" distance indicated in these diagrams is given for information purposes only and hold harmless to SAMES KREMLIN. The user is responsible for the extraction and conditioning of the painting area where the equipment is used, for working conditions (refer to EN 60079-10 standard).

The 1 m / 39.37" distance may be modified if trials carried out by the user deem this necessary.

## 15 Operating principle

Before operating the equipment, check that the agitator is correctly grounded on the cover and that the ground is carried out.

### 15.1 Adjustment

#### 15.1.1 Air supply



**A lubrication of the agitator is necessary.**

**Supply air must be filtered and lubricated. The maximum air supply pressure is 6 bar / 87 psi.**

**Install a filter and a lubricator on the agitator air supply.**

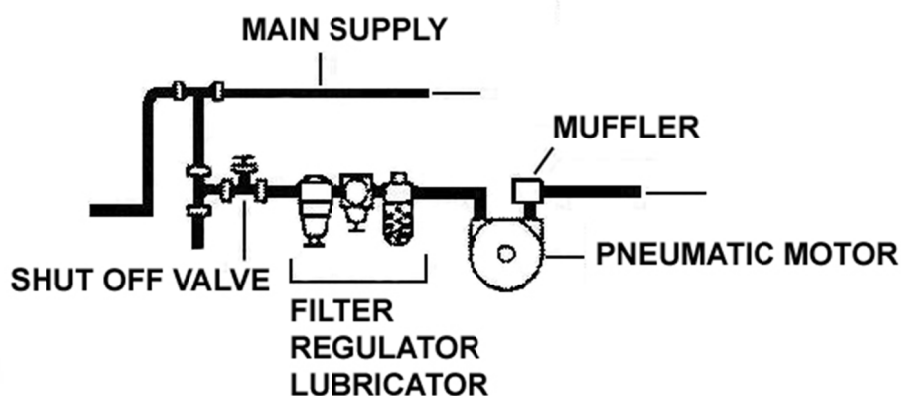
#### Adjustment of the lubricator

Agitation unit	Nb of drops / mn (constant operating)
200 L / 52.8 US gal	1-2

Recommended oil : HP 150 oil (refer to spare parts' list – option).

A lack of lubrication or an incorrect lubrication can lead to a serious damage of the agitator motor.

The filter / lubricator must be installed above the motor (maximum distance from the pneumatic motor 0.5 m / 1.6 ft) (Refer to drawing).



*The hoses fitted with a quick release fitting can be connected to the elevator depending upon the working stage :*

⇒ When you have to rise or lower the cover, the air hose must be connected to the elevator, there is no air on the motor of the agitator.

⇒ When the air hose is connected on the motor of the agitator, and its rotating, you cannot lift or lower the elevator.



The maximum air supply working pressure is 6 bar / 87 psi.

Do not run the agitator at high speed.

Do not run the equipment with no load. It can lead to a deterioration of the paint, vibrations and an early wear of the parts.

### 15.1.2 Replacement of the drum



Protectors are put in place for safe use of the equipment.

Examples :

- ✓ Engine hood,
- ✓ Carters.

The manufacturer can not be held responsible in case of :

- ✓ Bodily injury
- ✓ As well as breakdowns and / or damage to the equipment resulting from the destruction, the occultation or the total or partial withdrawal of the protectors.



**Keep a sufficient gap between the bottom of the drum and the blades of the agitator to avoid frictions and sparks.**

Close the air supply by unscrewing the knob of the air regulator. The motor of the agitator stops.

Disconnect the air hose that supplies the agitator motor.

Connect the quick release fitting to the air inlet of the pneumatic control of the single post-ram.

Move the distributor lever upwards to put the whole in the up position.

Take off the empty drum.

Check that the tightening of the motor rod is correct.

Place the new drum under the cover of the single post-ram.

Make the whole get down holding the distributor lever downwards (Take care to center the drum under the cover in order not to damage the elements).

Bring into contact the cover with the drum.

Disconnect the quick release fitting of the pneumatic control of the single post ram and connect it to the agitator air inlet.

Open the air supply by unscrewing the knob of the air regulator. The motor of the agitator starts up.

## 15.2 First start-up

Before operating the equipment, lubricate the pneumatic motor adding 4 or 5 oil drops on the quick release fitting of the air supply hose.

Check that the agitator is correctly grounded on the cover and that ground is carried out.

Check that moving parts are not in contact with the drum to avoid sparks.

Check the connection to the air supply.

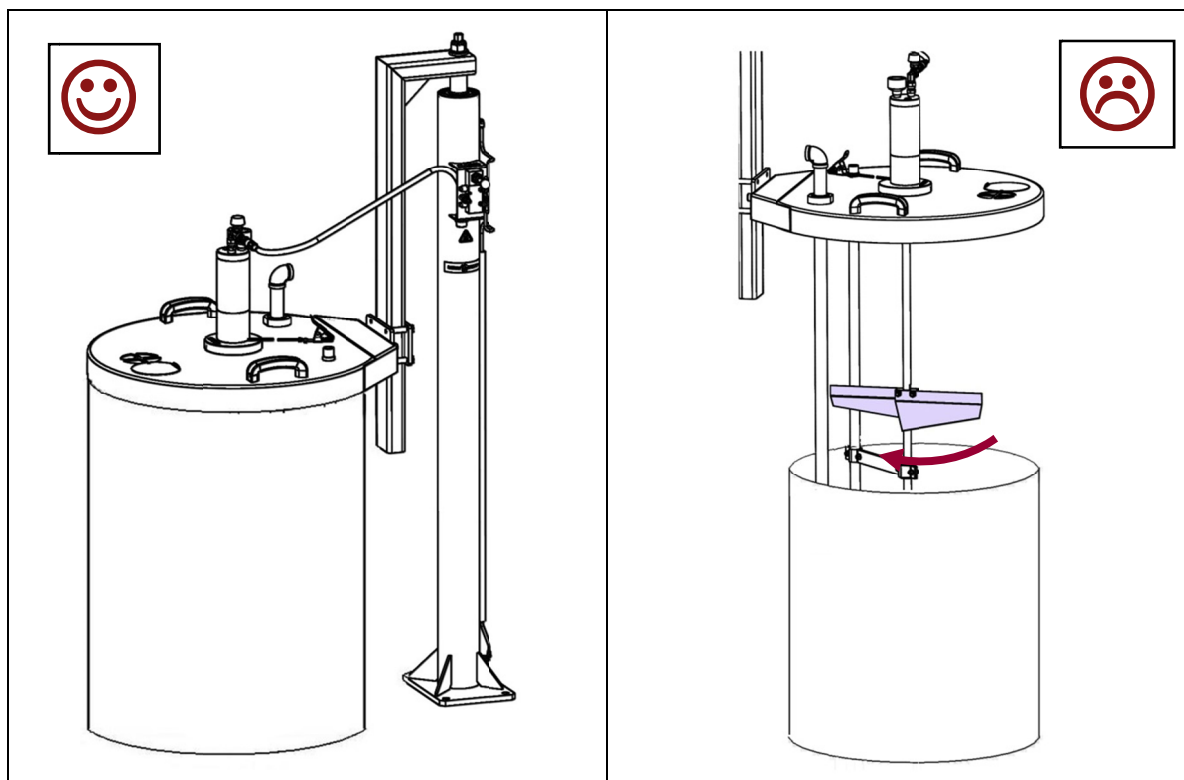
Adjust the air regulator by controlling the rotation speed of the agitator from the hatch.

Close the hatch.

The agitation unit is ready for use.



**Do not operate the agitator outside of a drum.**



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## 16 Troubleshooting guide

### 16.1 Possible symptoms of faults / Causes of faults / Remedy to be applied - quick operation



**Before any intervention on the equipment, shut off the air supply of the agitator and follow the general safety instructions.**

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FAULTS	CAUSES	SOLUTIONS
The agitator does not start up or its speed is too low.	Insufficient air supply of the agitator.	Raise the air pressure unscrewing the needle valve of the air regulator. Check the air supply pressure upstream of the agitator.
	Restrictive exhaust.	Clean the muffler and change it if necessary.
	Insufficient lubrication.	After having disconnected the motor from the system, inject some oil drops directly on the motor (via the quick release fitting).
	The motor has not been used for several weeks.	Increase the air pressure.
The agitator starts but nothing happens.	Loose propeller.	Check the screw (s) of the propeller (s) and tighten if necessary.
	Loose coupling sleeve.	Check the screw (s) of the coupling sleeve and tighten if necessary.
Overheating.	Insufficient lubrication.	Add oil drops via the quick release fitting or carry out an internal lubrication of the motor.
	Too high rotation speed.	Reduce rotation speed of the agitator.
Vibrations.	Loosening of the propeller.	Check the screw(s) of the propeller(s) and tighten if necessary.
	Loosening of the coupling sleeve.	Check the screw(s) of the coupling sleeve and tighten if necessary.
	Loosening of the geared motor.	Check the tightening of the geared motor.
	Worn guide ring.	Change the guide ring.
The single-post ram does not go up any more.	Insufficient air supply.	Increase the air pressure. Check the connection.
	Lever of the distributor in the middle position	Move the lever of the distributor upwards to make go up the unit.
Presence of oil drops on the outlet of the muffler.	Lubrication too important.	Reduce the lubrication.
Suction fault.	Plugged strainer.	Check the strainer. Clean it if necessary.
	The pump does not start.	Check the pump.
	Empty drum.	Check the drum.

If the motor of the agitator has an important blockage, then please contact SAMES KREMLIN or the appropriate distributor.

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## 17 Maintenance

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### 17.1 Preventive maintenance



To prevent injuries, material injections, injuries due to moving parts or sparks during the stopping of the system, the assembly, the cleaning or changing of a component, **you must shut off the air inlet of the agitator** before intervening.



**The equipment is manufactured under the ATEX agreement and can not be modified.**

**SAMES KREMLIN will not be held responsible for any failure to comply with these instructions.**



**Guards (motor cover, coupling guard, housings,...) are set up for safe use of the equipment.**

**The manufacturer can not be held responsible in case of bodily injury as well as breakdowns and / or damage of the material resulting from the destruction, the occultation or the total or partial removal of the protectors.**

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**General****Daily**

- Check earth connections.
- Check leakages from the fittings.

---

**Weekly**

- Check hoses.
- Operate all valves.

---

**Single-post ram****Monthly**

- Check the equipment is correctly positioned (high position) and firmly mounted.
- Check if there is no air leakage.
- Check the conditions of the rods' air hoses.
- Clean the single-post ram rods (high position) and lubricate them with a brush.
- Clean and check the tightness of the seals.
- Lubricate the single-post ram rods.

---

**Agitator****Daily**

- Check the lubricator oil level or fill it if necessary.
- Check that the spacing between the drum and the parts in rotation (propellers, axes,...) is sufficient.

---

**Weekly**

- Check the adjustment of the drip lubricator.
  - Check the tightening of the propellers' axes and of the agitation bracket.
  - Check regularly the cleanliness of the muffler. Clean it or change it if soiled.
-

---

### Monthly

Check the air filter.

Clean the propellers of the agitator with the appropriate cleaner recommended by the paint manufacturer.

---

### Half-yearly

Check the guide ring of the agitation bracket. Change it if necessary.

Check the tightening of the geared motor.

---

#### **Note :**

**Frequencies are given as a guide. They must be followed by the maintenance service of the user for each installation according to the product, the working frequency and the working pressure.**

## 17.2 Curative maintenance

It is recommended to schedule a routine maintenance after a set numbers of hours of operation.

This is defined by the user's maintenance department and is based on the product, the work rate and the usual pressure.

Be aware of the disassembly / reassembly and spare parts.

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## 18 Assembly operation



The equipment is manufactured under the ATEX agreement and can not be modified.

SAMES KREMLIN will not be held responsible for any failure to comply with these instructions.



Guards (motor cover, coupling guard, housings,...) are set up for safe use of the equipment.

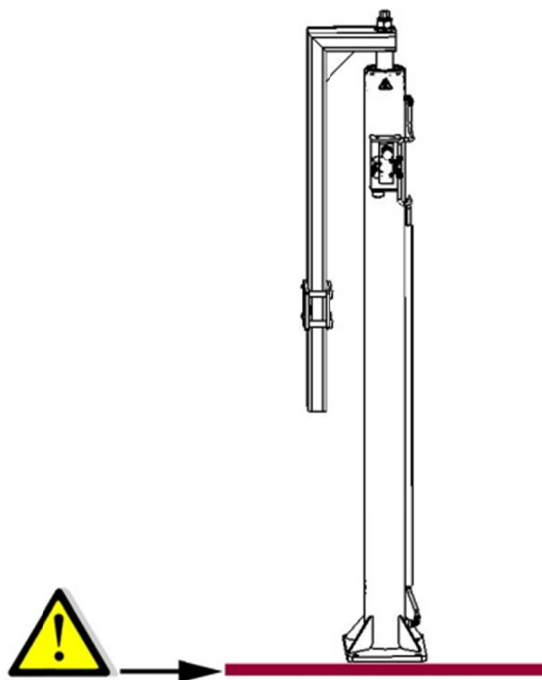
The manufacturer can not be held responsible in case of bodily injury as well as breakdowns and / or damage of the material resulting from the destruction, the occultation or the total or partial removal of the protectors.

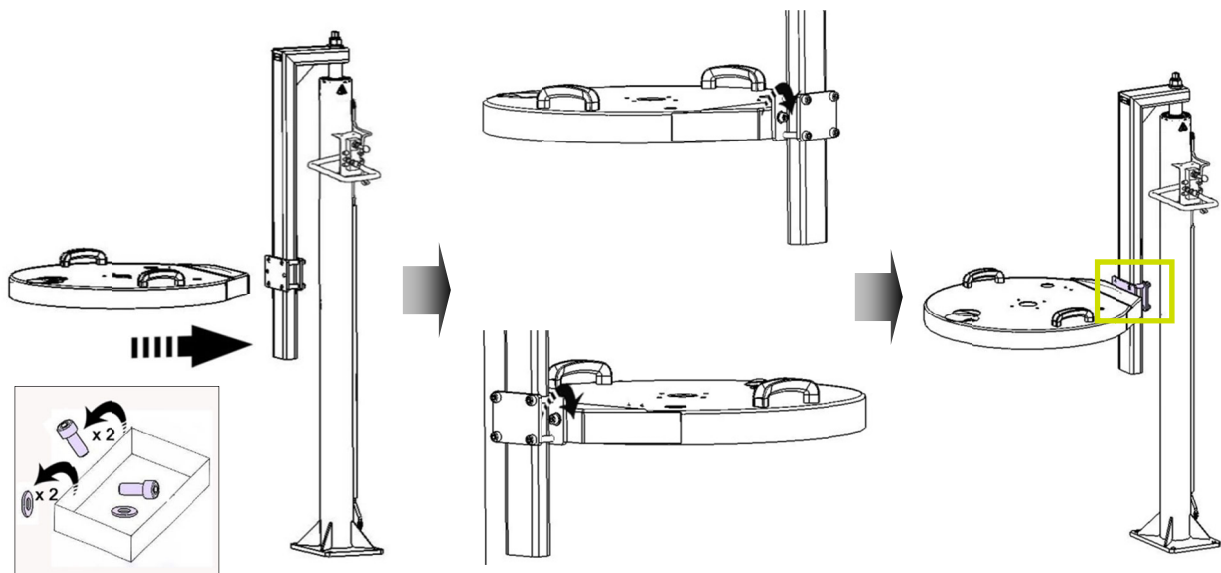
Instruction	Description	Part numbers
PTFE grease	' Technilub' grease (10 ml / 0.026 US gal)	560.440.101
Medium strength Anaerobic Pipe sealant	Loctite 5772 (50 ml / 0.013 US gal)	554.180.015

### 18.1 Agitation unit assembly 200 L / 52.8 US gal



The post-ram shall be made stable by the use of anchoring devices (screws, bolts...) needed to achieve the stability.



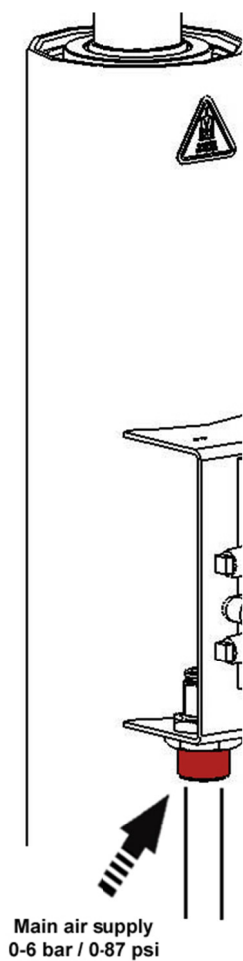


- ✓ Place the cover in front of the plate and the counterplate of the post-ram, then tighten the two screws and the two washers on the cover by means of a 8 mm spanner.

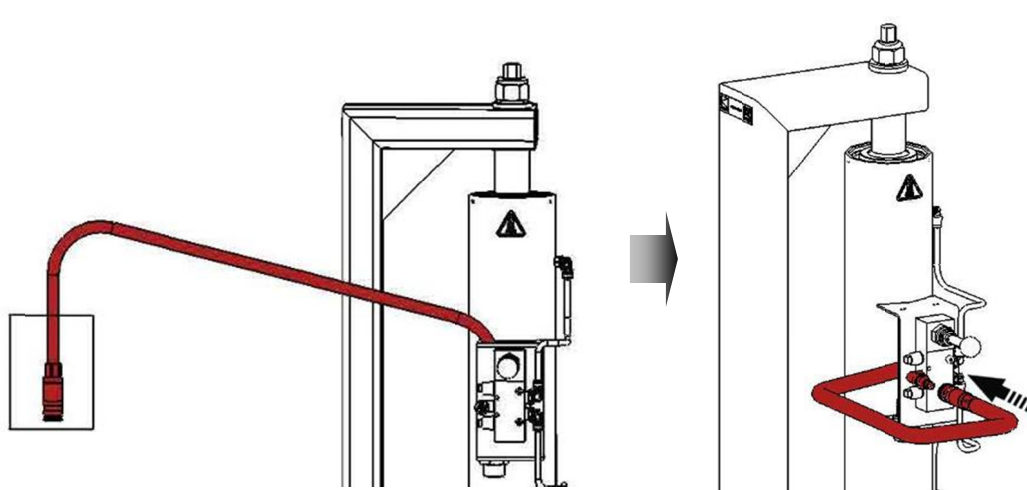
**Tools needed**

**8**

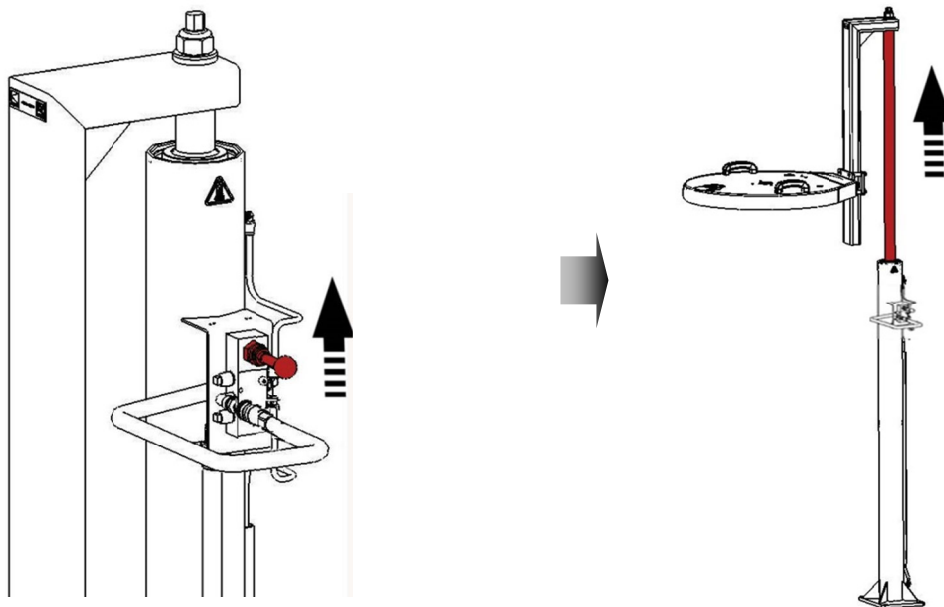




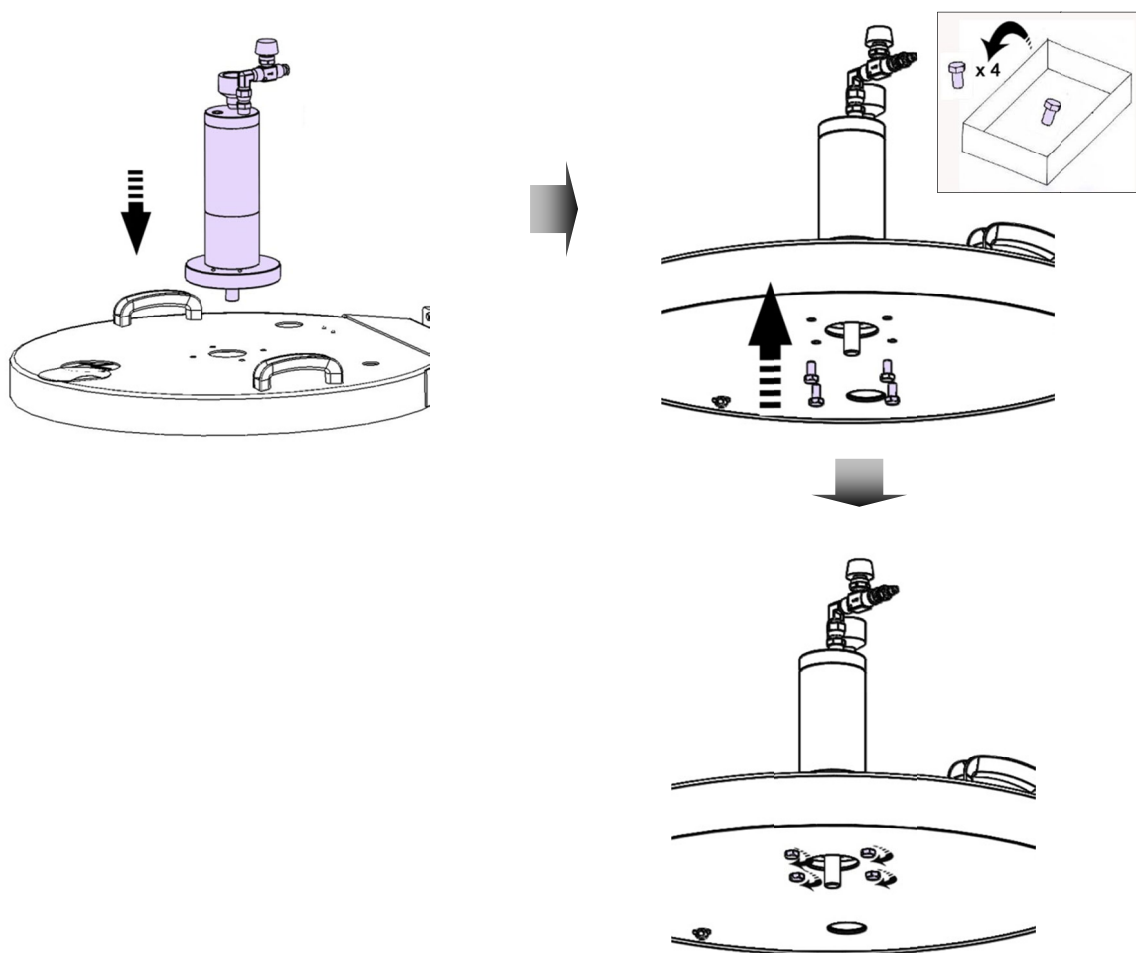
- ✓ Connect the air supply of the post-ram to the compressed air network (maximum 6 bar / 87 psi).
-



- ✓ Take the quick-release coupling from the air supply hose and plug it into the air inlet of the ram control valve.



- ✓ Hold the ram control lever upwards. The arm/cover assembly lifts via the ram jack and moves upwards.

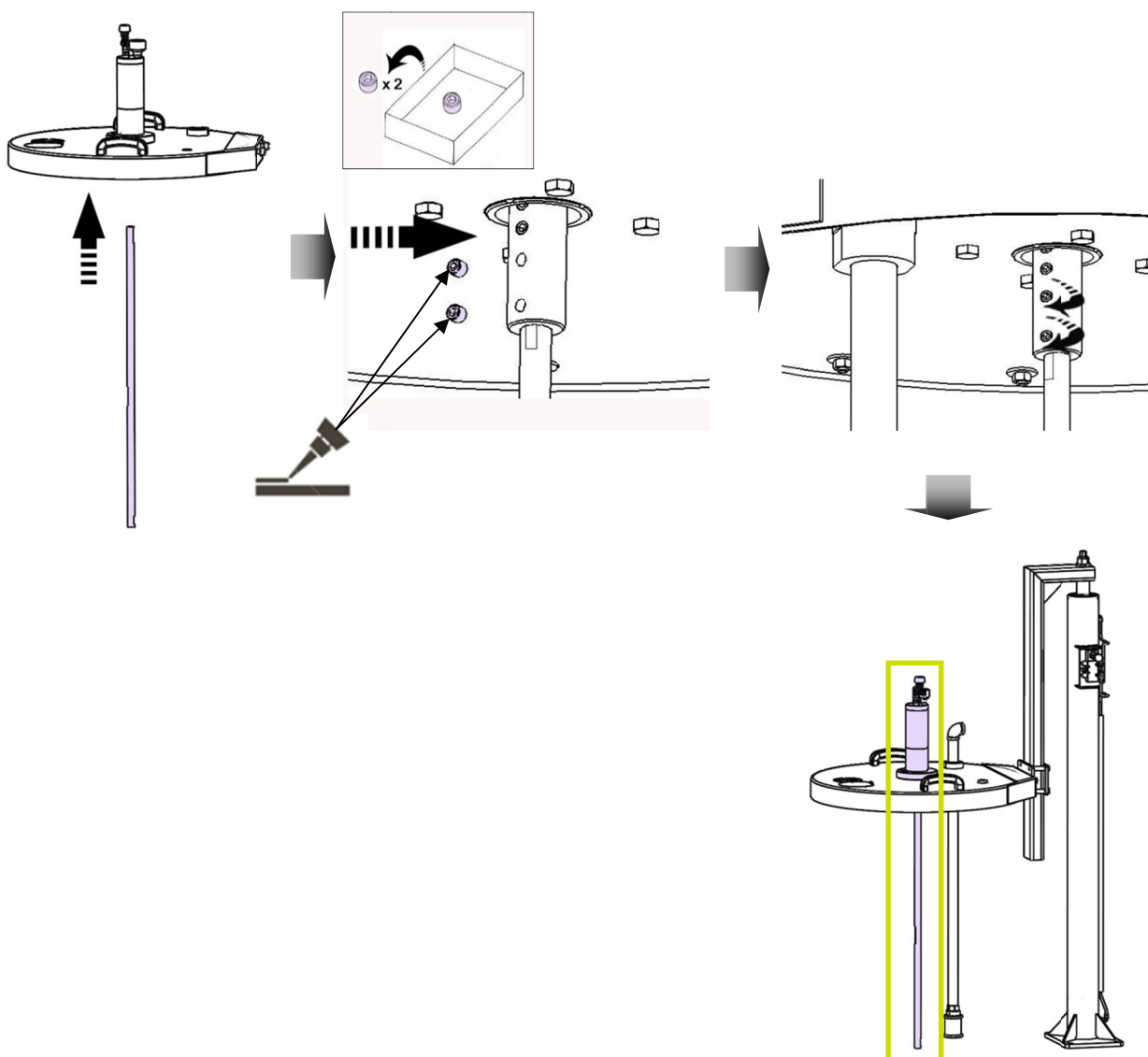


- ✓ Place the geared motor of the agitator in the centre of the cover.
- ✓ Tighten it by means of the four screws and of a 13 mm spanner.

**Tools needed**

**13**

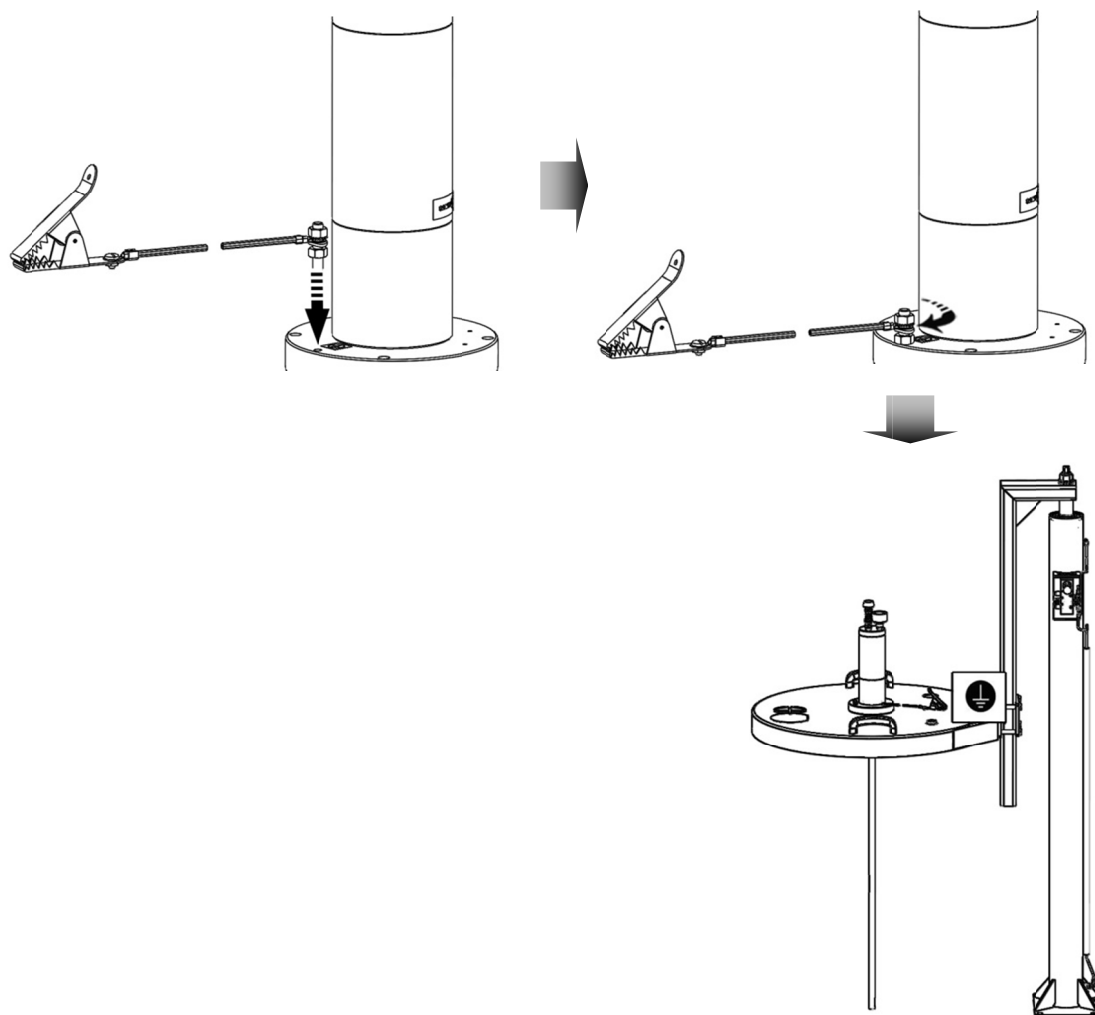




- ✓ Install the agitator rod in the sleeve of the geared motor.
- ✓ Apply glue (Loctite 5772) on the two needle screws and screw them on the sleeve by means of a 6 mm BTR wrench.

**Tools needed**



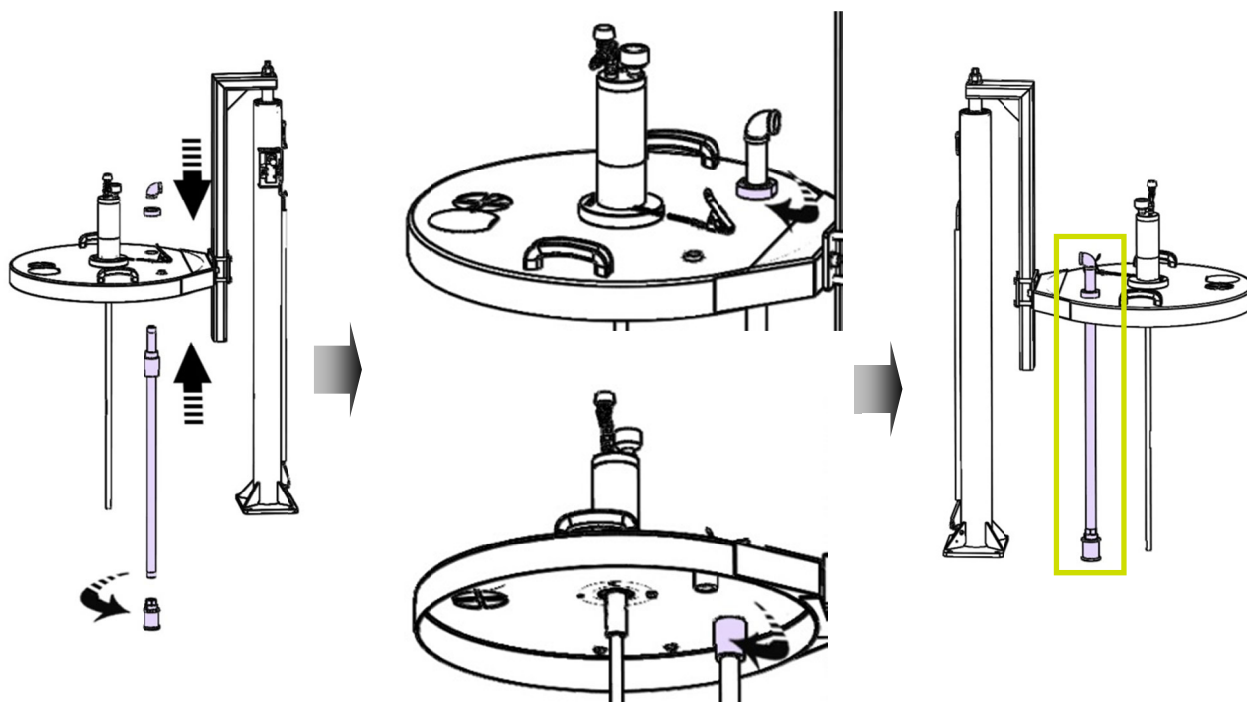


- ✓ Install the ground cable on the geared motor and tighten the screw by means of a 10 mm spanner.

**Tools needed**

**10**

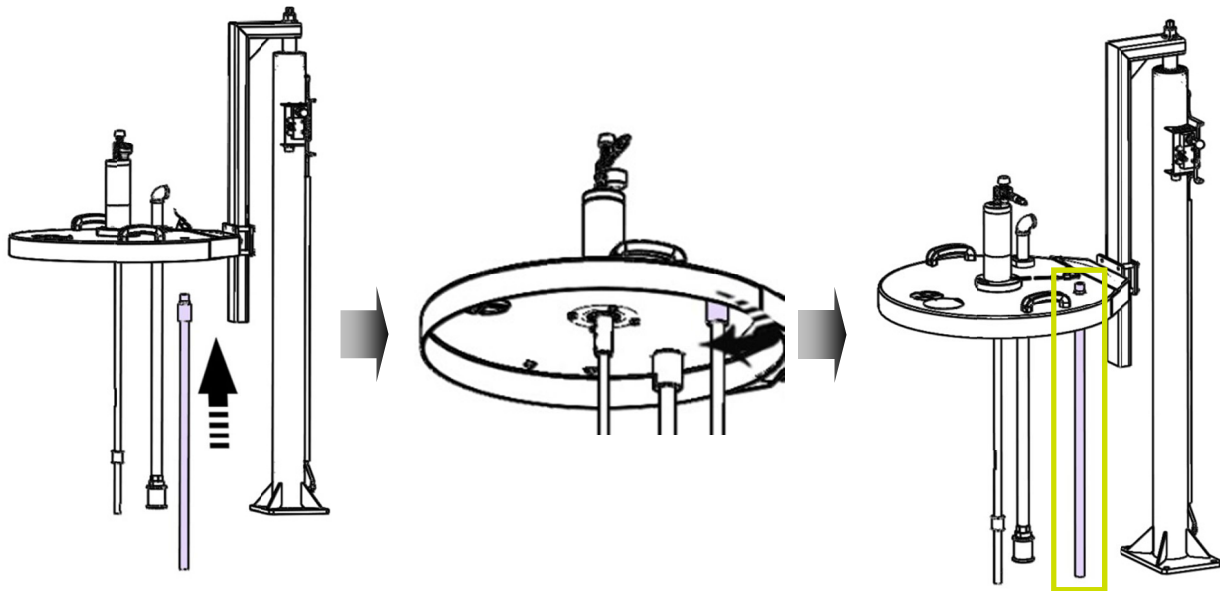




- ✓ Install the suction rod as well as the strainer.
- ✓ Tighten the nut by means of a spanner wrench. Tighten the ring.

**Tools needed**

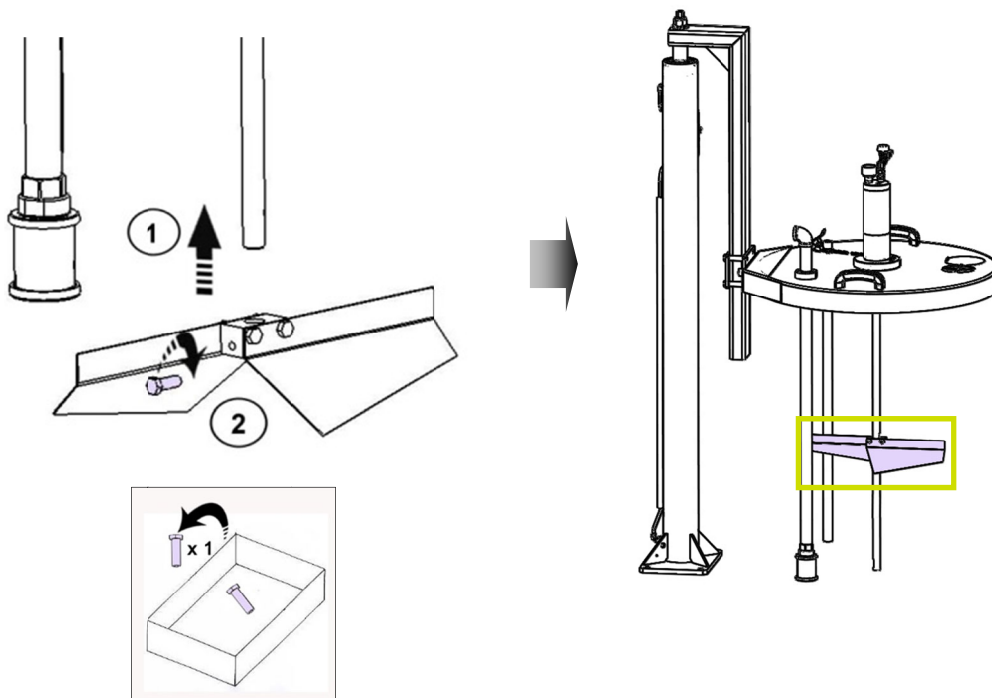




- ✓ Install the return-rod and tighten the nut.



To prevent injury or damage, the propellers are wrapped.

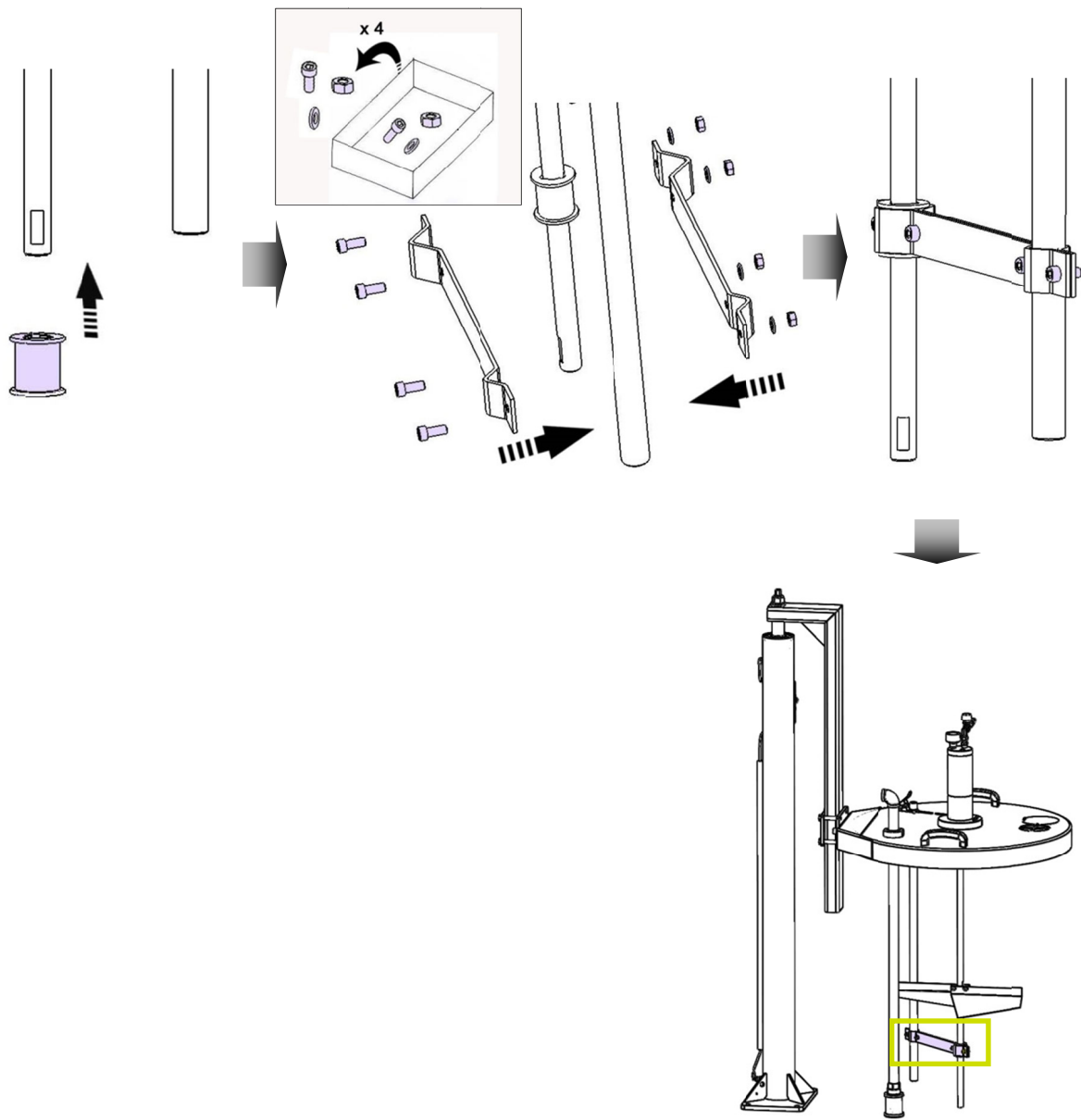


- ✓ Place the upper propeller on the agitator rod and tighten the screw by means of a 8 mm spanner.

**Tools needed**

**8**





- ✓ Install the ring on the agitator rod and place the agitator bracket on the rod as well as the return-rod.
- ✓ Tighten the four washers, the four nuts and the four screws by means of a 10 mm spanner and of a 5 mm BTR wrench.

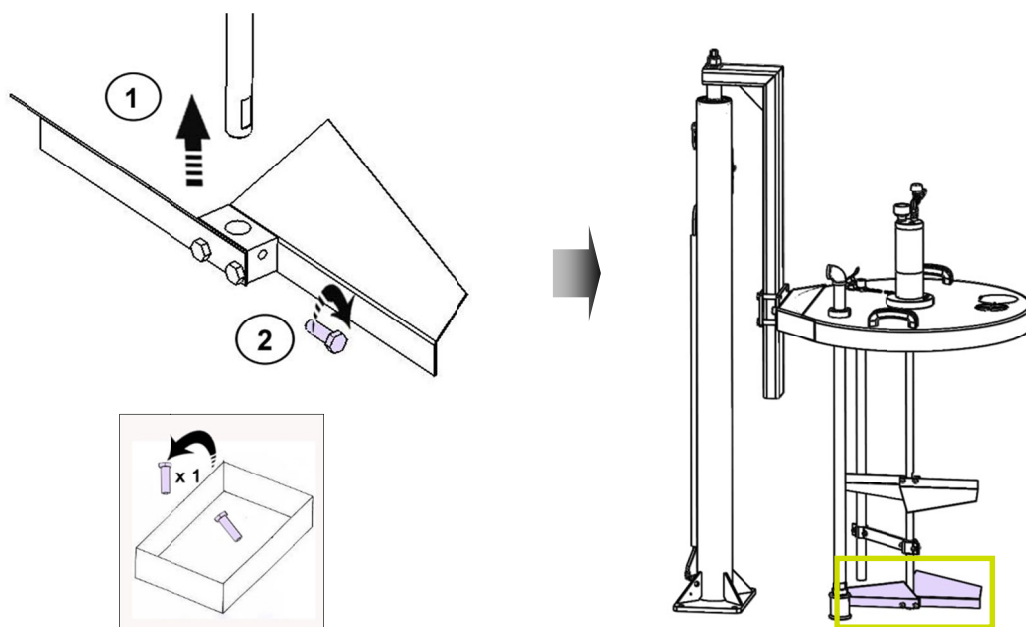
**Tools needed**

**10**



**5**





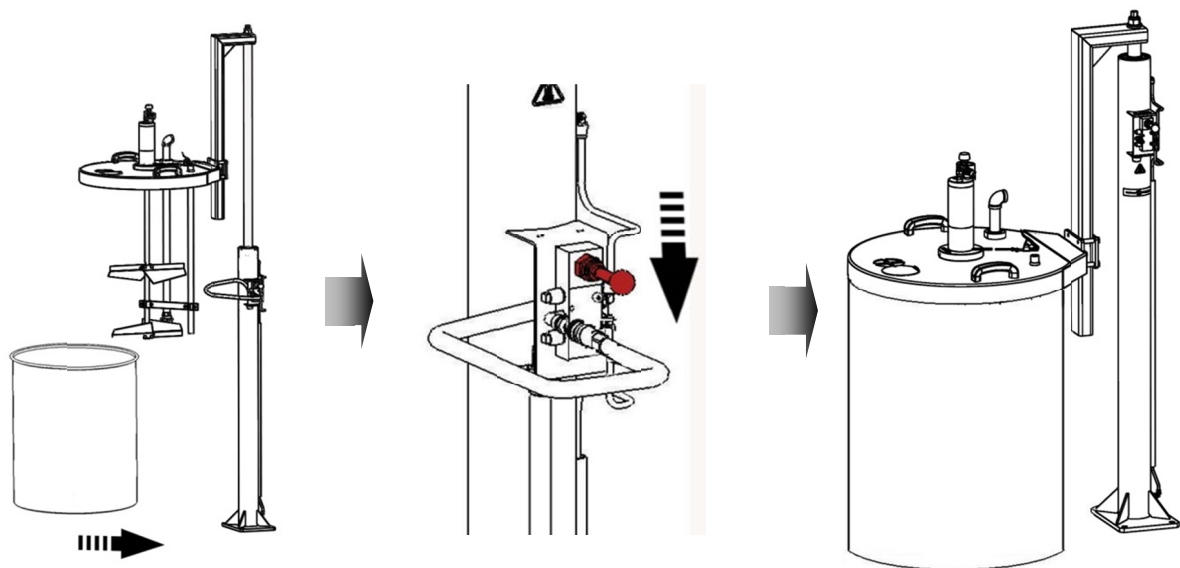
- ✓ Position the lower propeller on the agitator rod and tighten the screw by means of a 8 mm spanner.

**Tools needed**

**8**



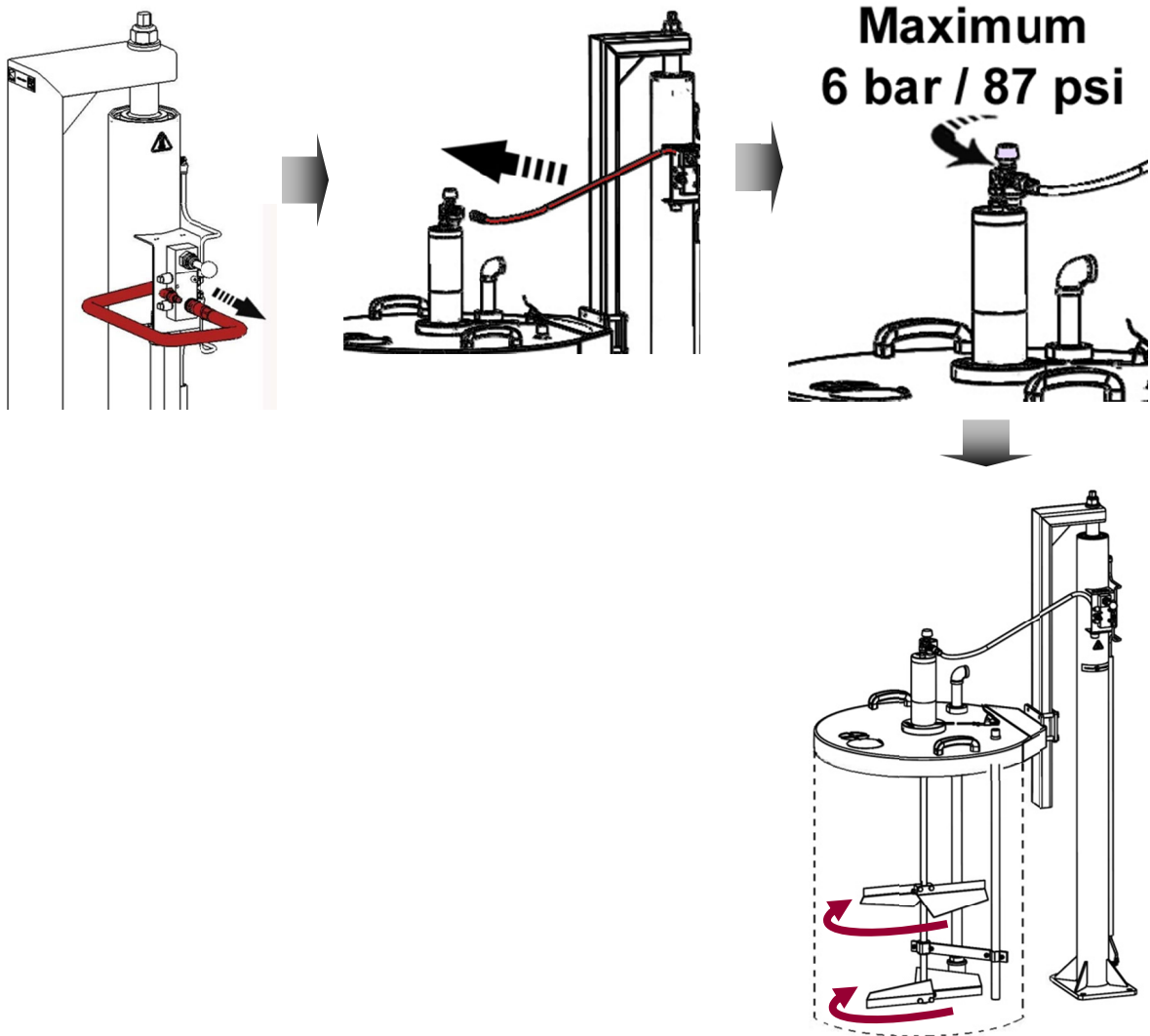
**Pay attention to the mounting of the propeller, which differs from that of the upper propeller.**



- ✓ Locate a drum under the agitation unit.
- ✓ Hold the ram control lever downwards. The arm/cover assembly goes down via the ram jack and moves downwards.



**Careful to center the drum in relation to the cover to avoid frictions and sparks from the propellers.**



- ✓ Disconnect the quick release coupling from the air supply hose of the ram control distributor.
- ✓ Connect the quick release coupling to the agitator air supply.
- ✓ Unscrew slightly the knob of the agitator air flow regulator to make the geared motor operate very slowly for a few seconds, then make it work normally.



**Do not operate the agitator to a too high speed. It can lead to a deterioration of the paint, vibrations and an early wear of the parts.**

## 19 Disassembly / assembly operation



**The equipment is manufactured under the ATEX agreement and can not be modified.**

**SAMES KREMLIN will not be held responsible for any failure to comply with these instructions.**

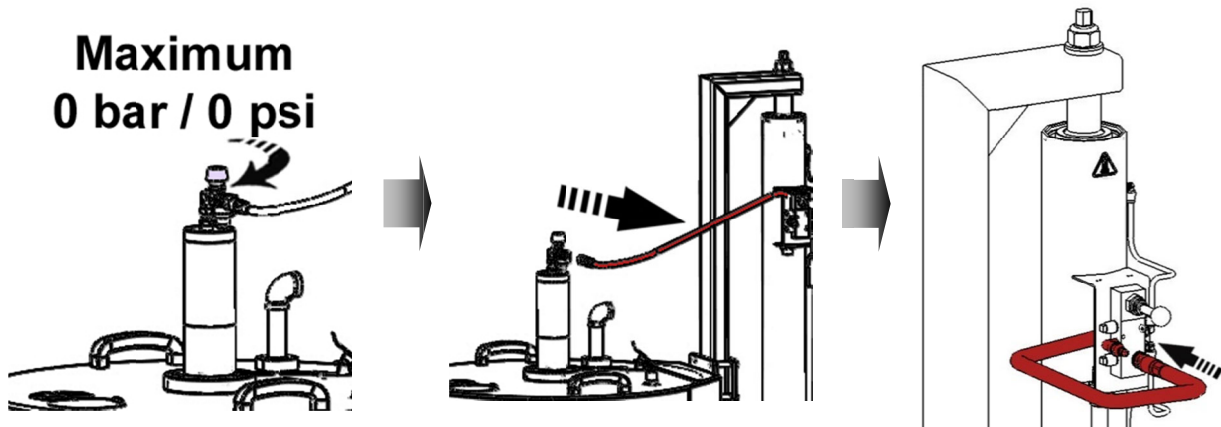


**Guards (motor cover, coupling guard, housings,...) are set up for safe use of the equipment.**

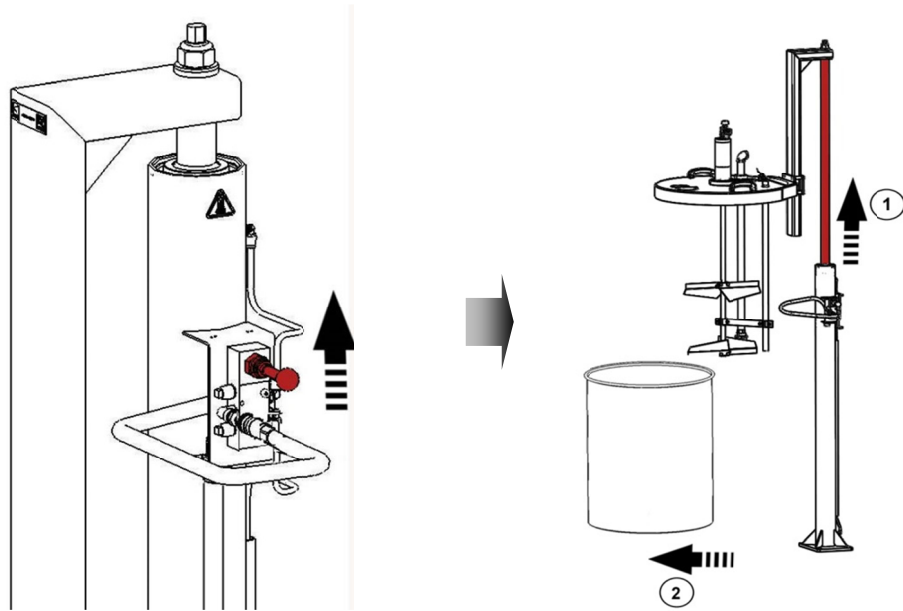
**The manufacturer can not be held responsible in case of bodily injury as well as breakdowns and / or damage of the material resulting from the destruction, the occultation or the total or partial removal of the protectors.**

Instruction	Description	Part numbers
PTFE grease	' Technilub' grease (10 ml / 0.026 US gal)	560.440.101
Medium strength Anaerobic Pipe sealant	Loctite 5772 (50 ml / 0.013 US gal)	554.180.015

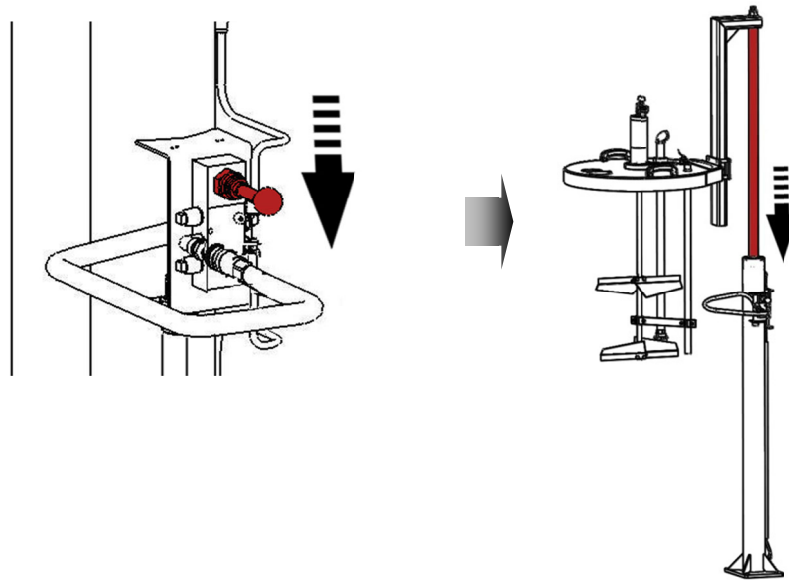
## 19.1 Agitation unit 200 L / 52.8 US gal disassembly



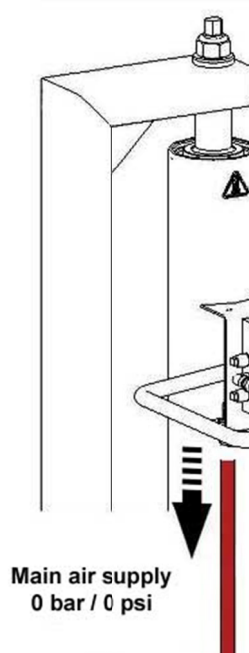
- ✓ Screw slightly the agitator air flow regulator knob to stop the geared motor.
- ✓ Take off the quick-release coupling from the air supply hose of the agitator air inlet.
- ✓ Take the quick-release coupling from the air supply hose and plug it into the air inlet of the ram control valve.



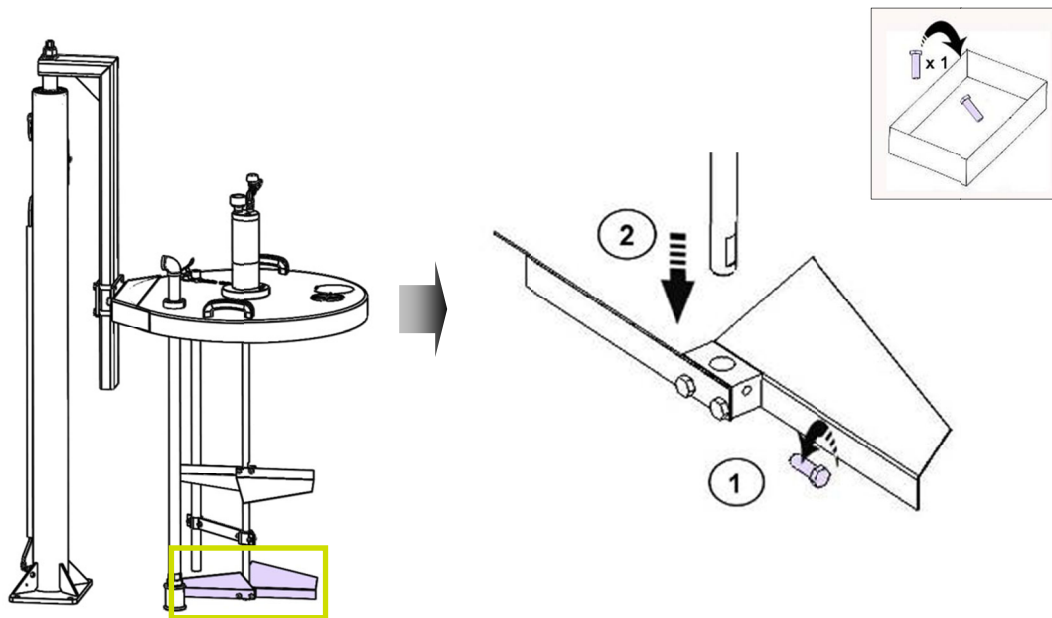
- ✓ Hold the ram control lever upwards. The arm/cover assembly lifts via the ram jack and moves upwards.
- ✓ Take off the drum.



- ✓ Hold the ram control lever downwards. The arm/cover assembly goes down via the ram jack and moves downwards.



- 
- ✓ Disconnect the post-ram air supply from the compressed air network (0 bar / 0 psi)
-

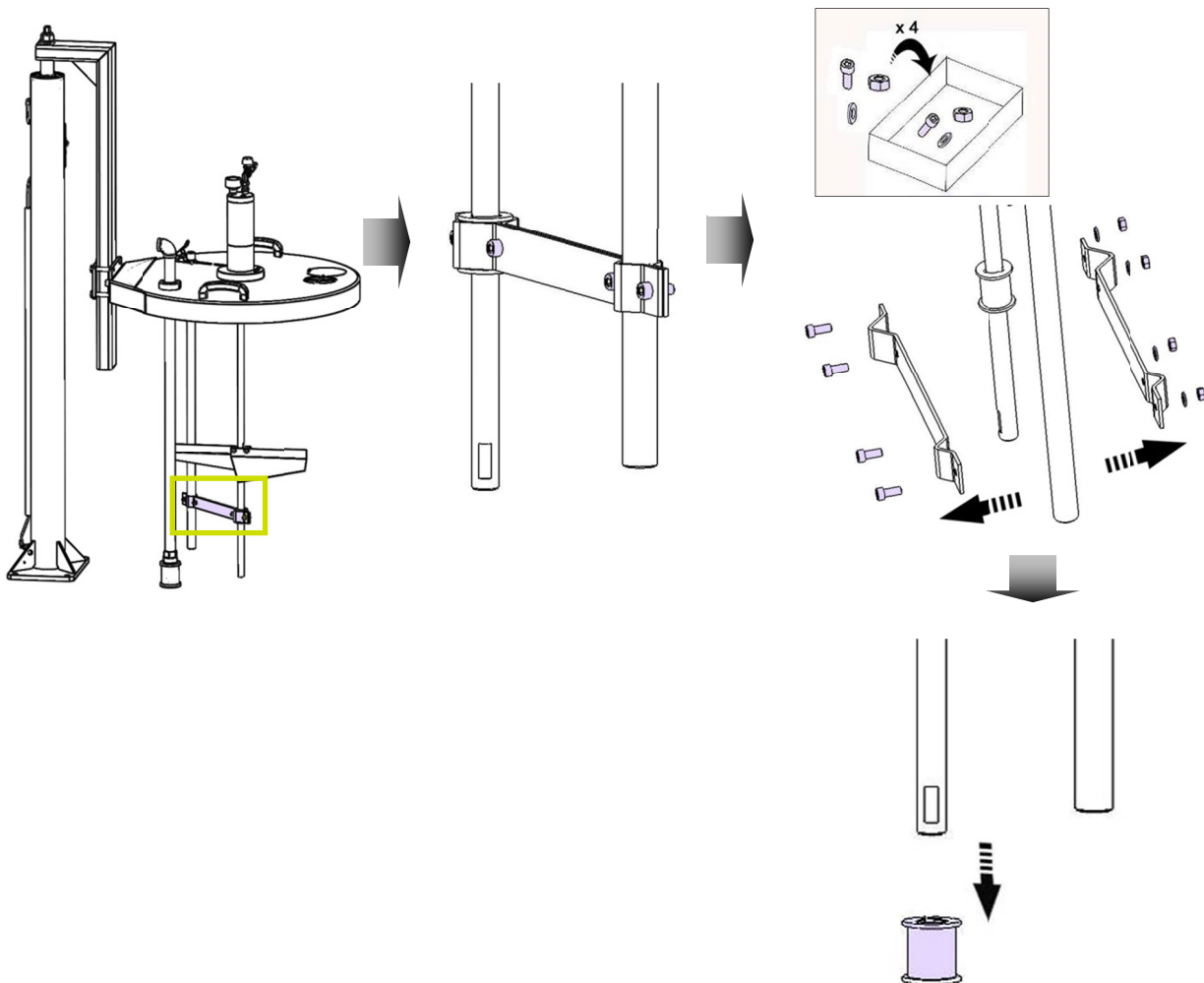


- ✓ Untighten the screw by means of a 8 mm spanner to take off the lower propeller from the agitator rod.

**Tools needed**

**8**





- ✓ Untighten the four washers, the four nuts and the four screws by means of a 10 mm spanner and of a 5 mm BTR wrench.
- ✓ Take off the ring from the agitator rod.

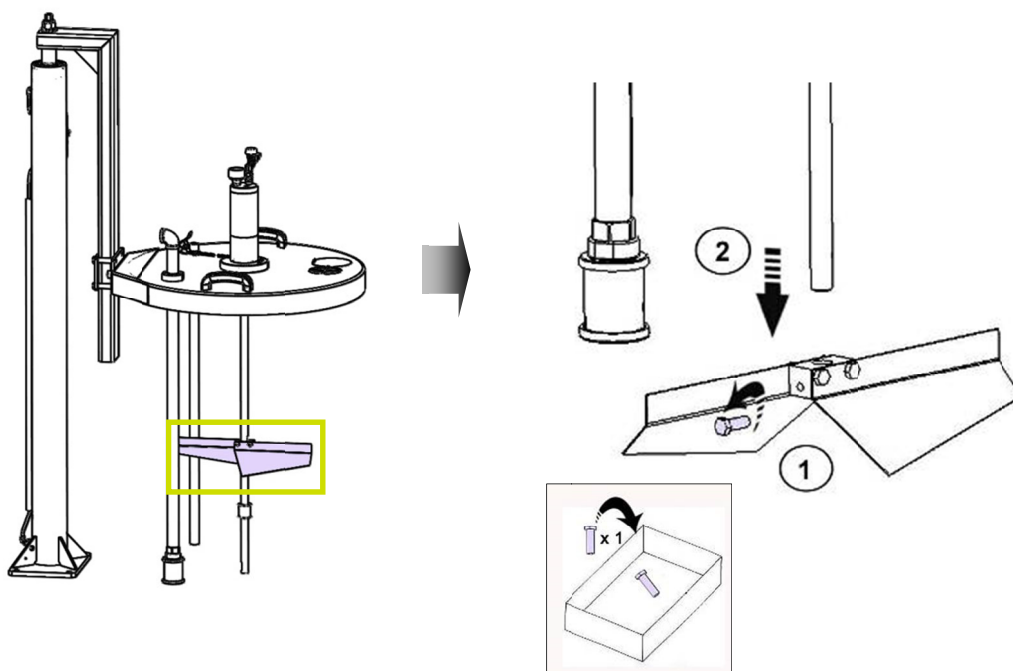
**Tools needed**

**10**



**5**

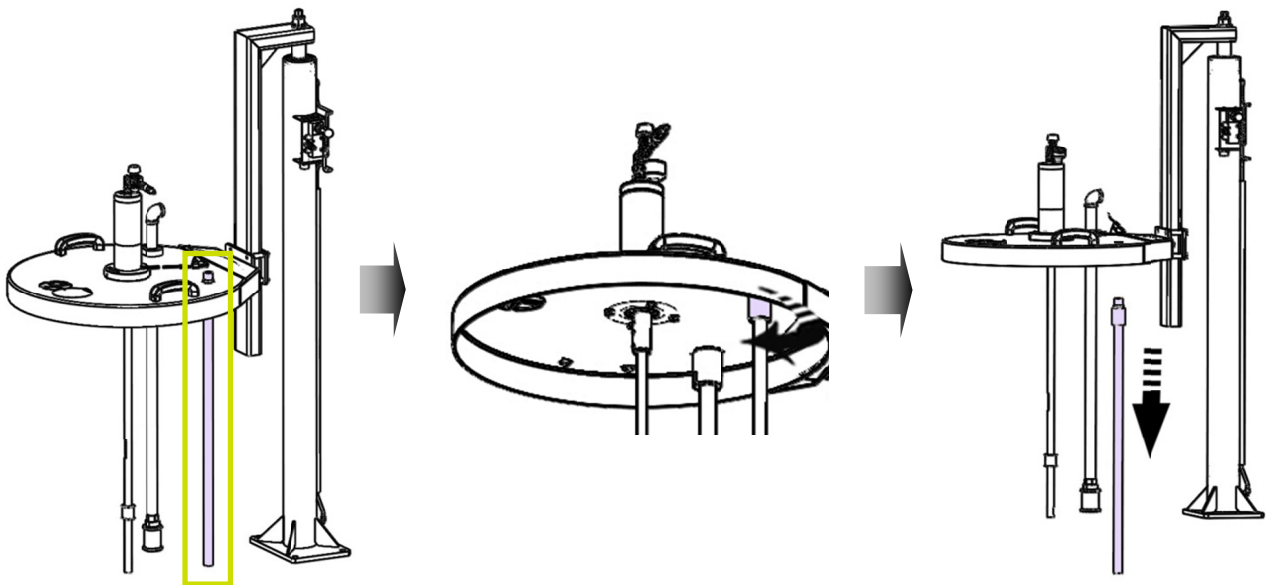




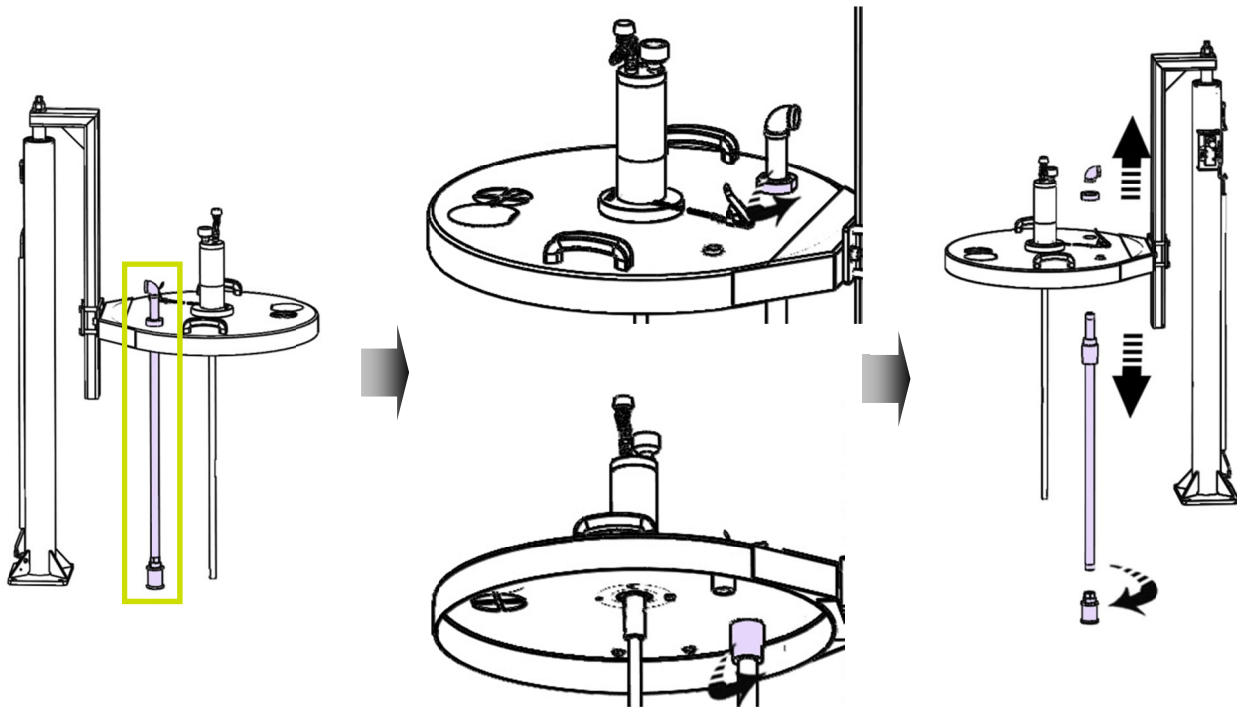
- ✓ Untighten the screw by means of a 8 mm spanner to take off the upper propeller from the agitator rod.

**Tools needed**





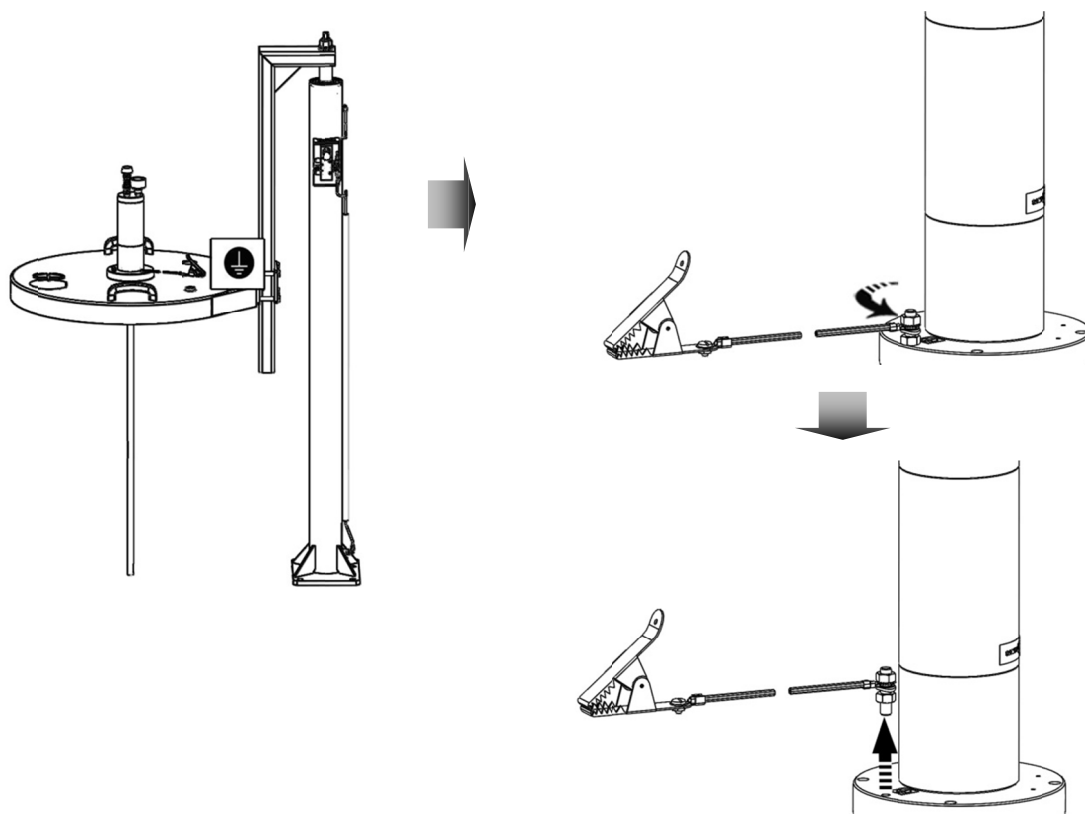
- ✓ Untighten the nut and remove the return-rod.



- ✓ Untighten the ring.
- ✓ Untighten the nut by means of a spanner wrench.
- ✓ Take off the suction rod as well as the strainer.

**Tools needed**



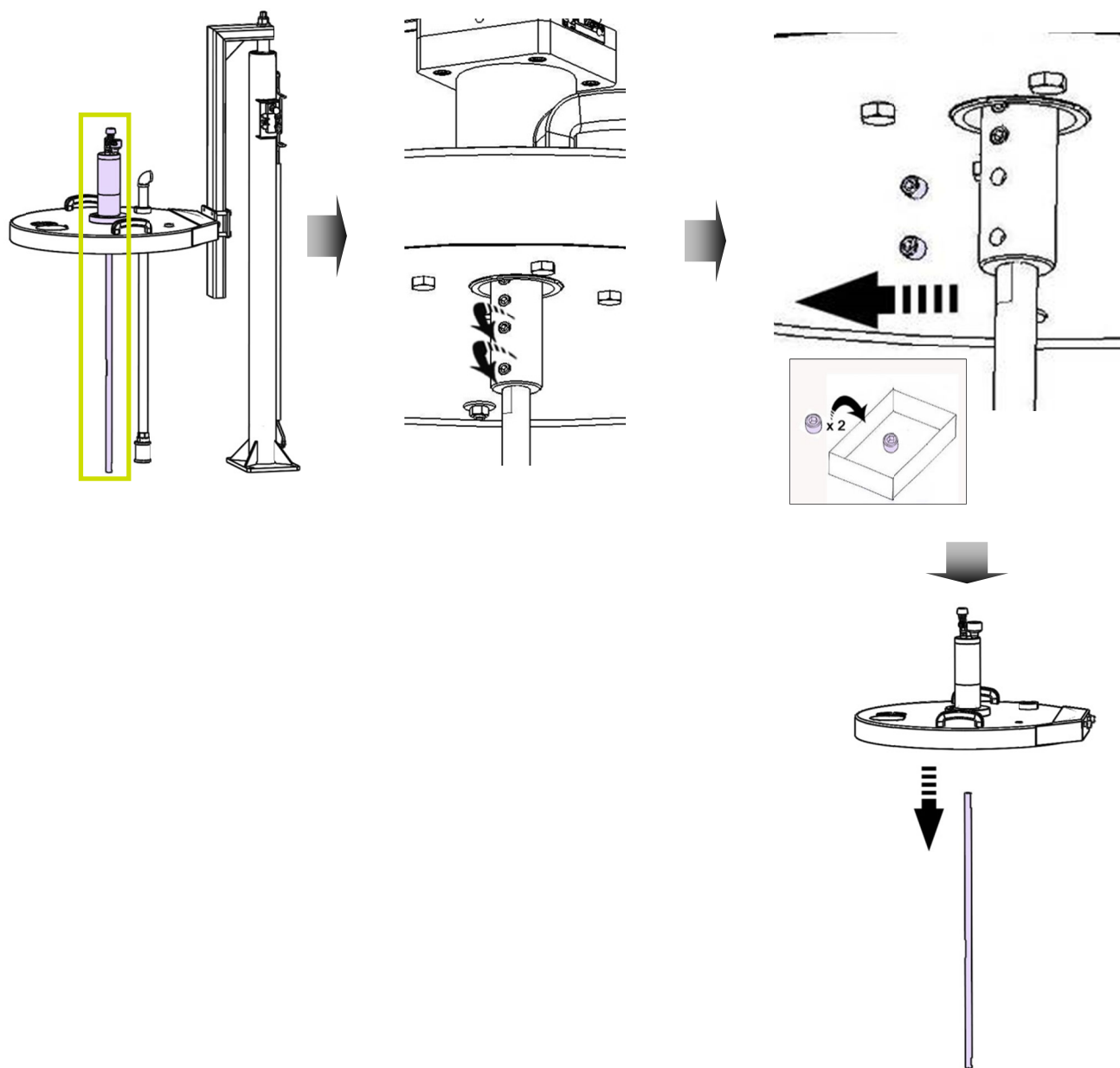


- ✓ Untighten the screw by means of a 10 mm spanner to take off the ground cable from the geared motor.

**Tools needed**

**10**

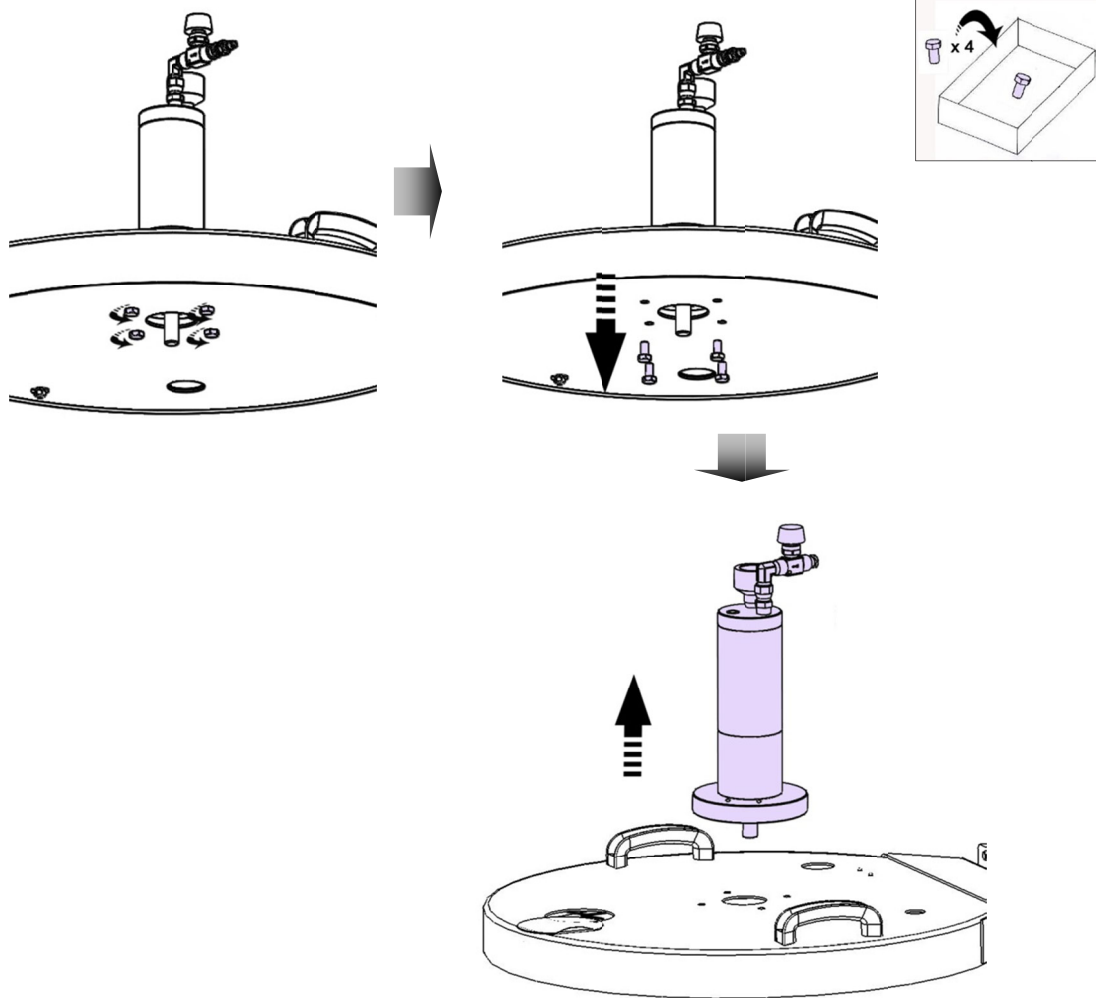




- ✓ Untighten the two needle screws from the sleeve by means of a 6 mm BTR wrench to remove the agitator rod.

**Tools needed**



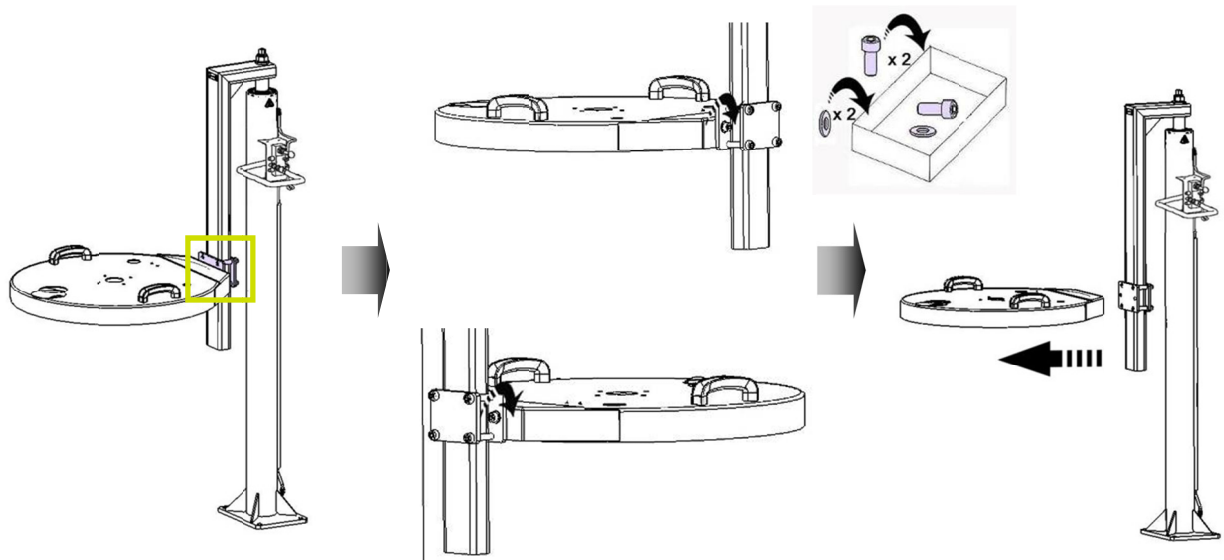


- ✓ Untighten the four screws located under the cover by means of a 13 mm spanner.
- ✓ Remove the geared motor of the agitator from the cover.

**Tools needed**

**13**



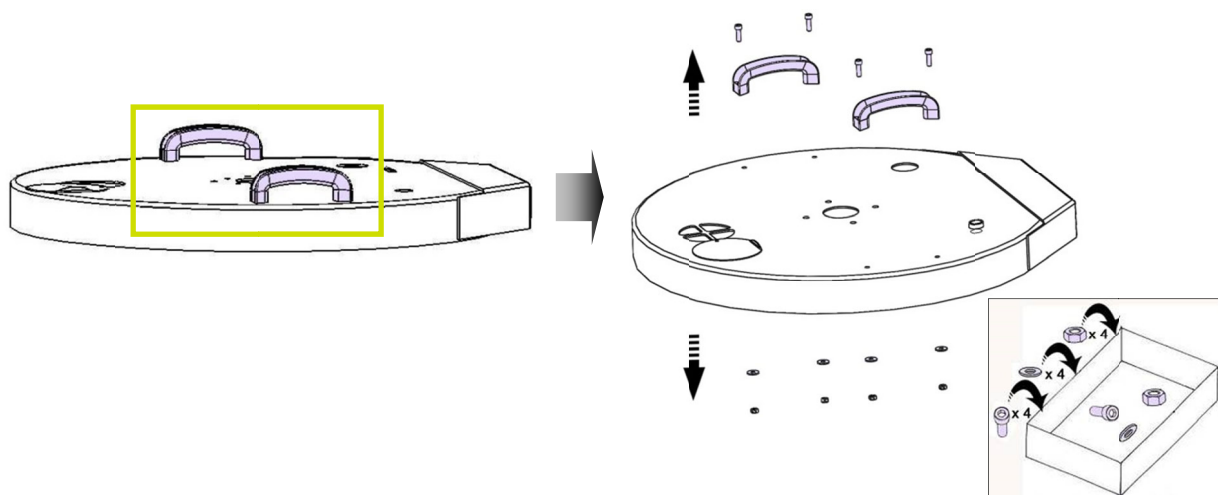


- ✓ Untighten the two screws and the two washers from the plate and the counterplate by means of a 8 mm spanner to take off the cover.

**Tools needed**

**8**





- ✓ Untighten the four nuts, the four washers and the four screws by means of a 5 mm BTR wrench and a 10 mm spanner to take off the cover handles.

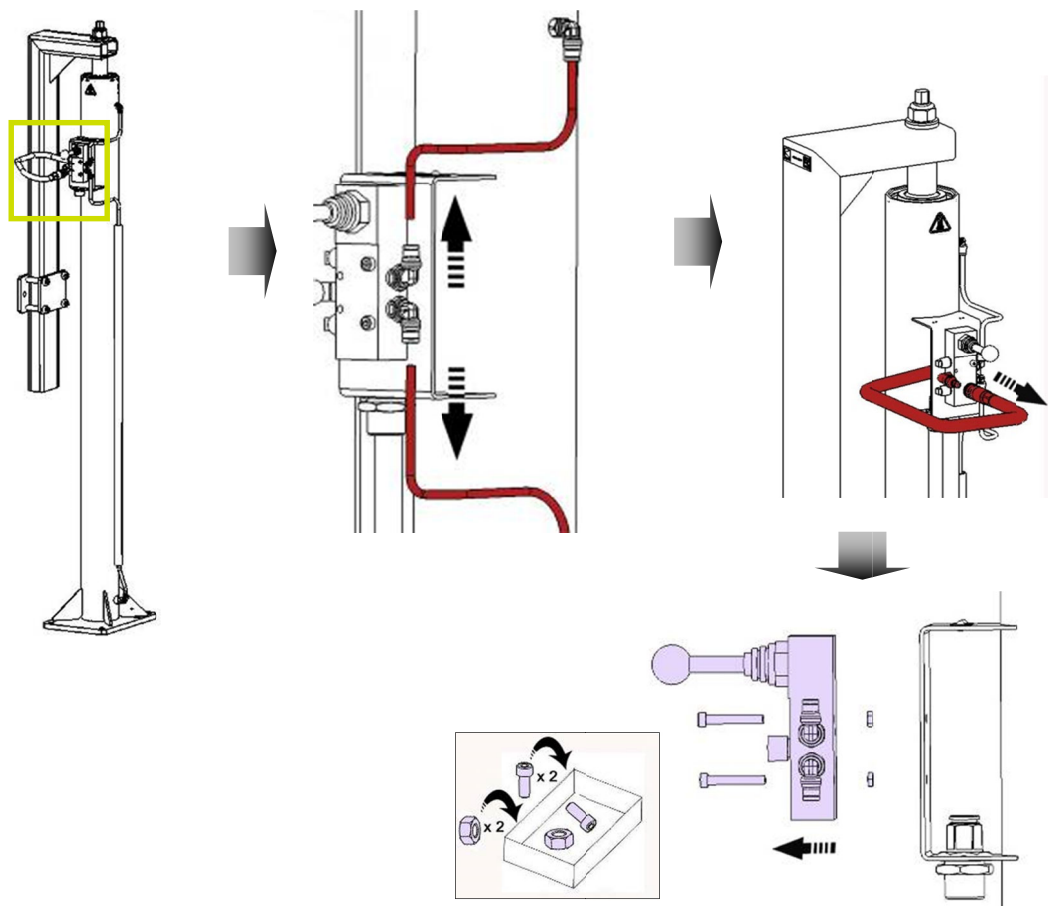
**Tools needed**

**10**



**5**

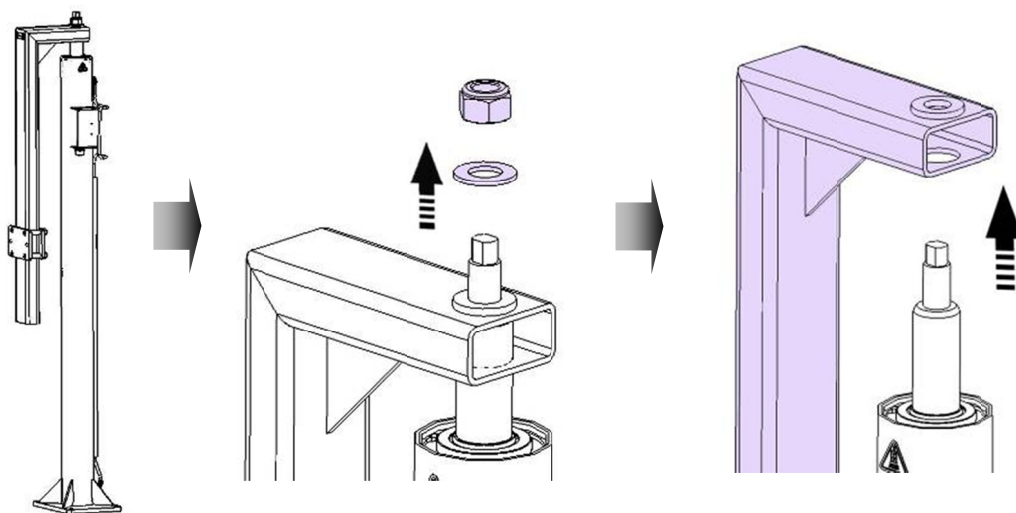




- ✓ Disconnect the two air supply hoses from the ram control distributor.
- ✓ Disconnect the quick release coupling to the air supply hose of the ram control distributor.
- ✓ Unscrew the two screws and the two nuts of the ram control distributor by means of a 7 mm spanner and a 3 mm BTR wrench.

**Tools needed**



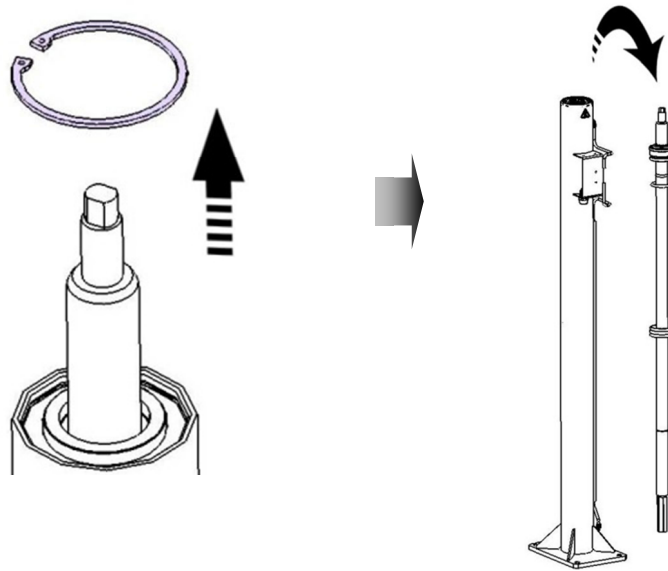


- ✓ Unscrew the nut and the washer by means of a 30 mm spanner from the ram lever arm to take it off from the ram.

**Tools needed**

**30**

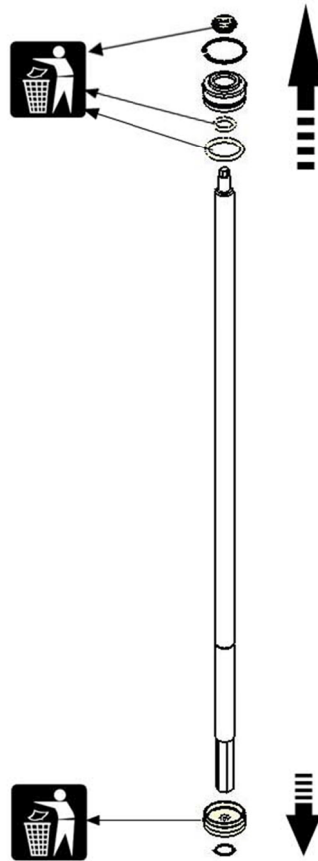




- ✓ Remove the circlip with the circlip pliers.
- ✓ Take off the jack assembly as well as the ram seals.

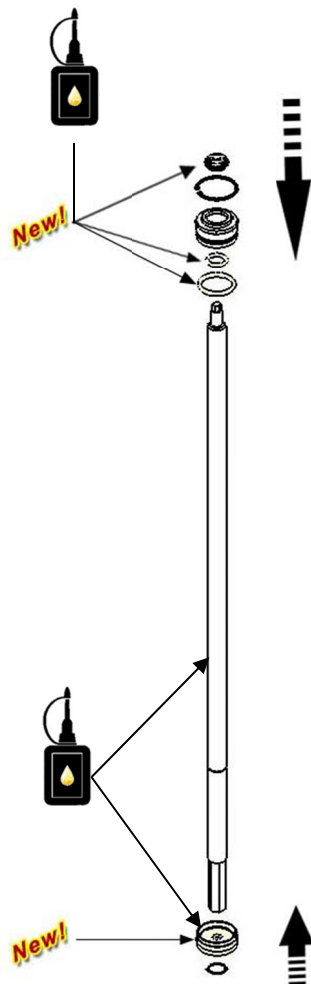
**Tools needed**





- ✓ Remove the seals from the ram rod to change them all.
-

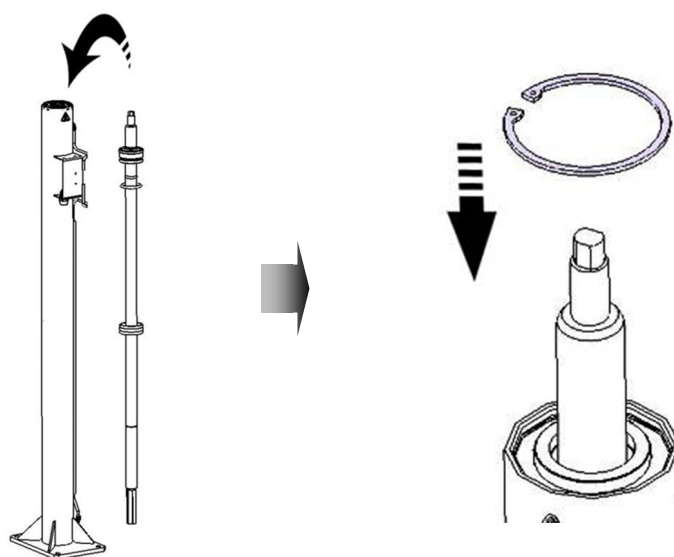
### 19.2 Agitation unit 200 L / 52.8 US gal assembly



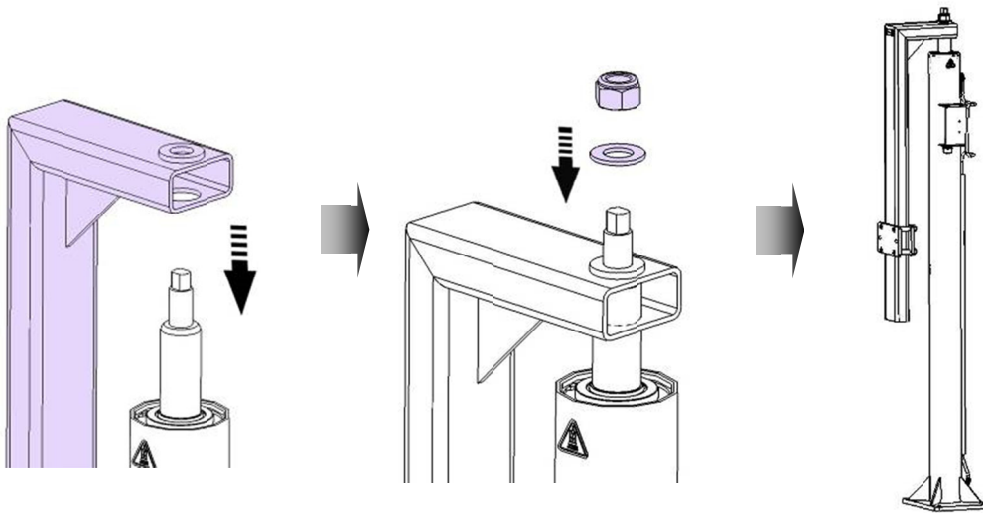
- ✓ Apply PTFE grease on the seals and install them on the ram rod.

**Tools needed**





- ✓ Re-install the jack on the ram.
  - ✓ Install the circlips.
-

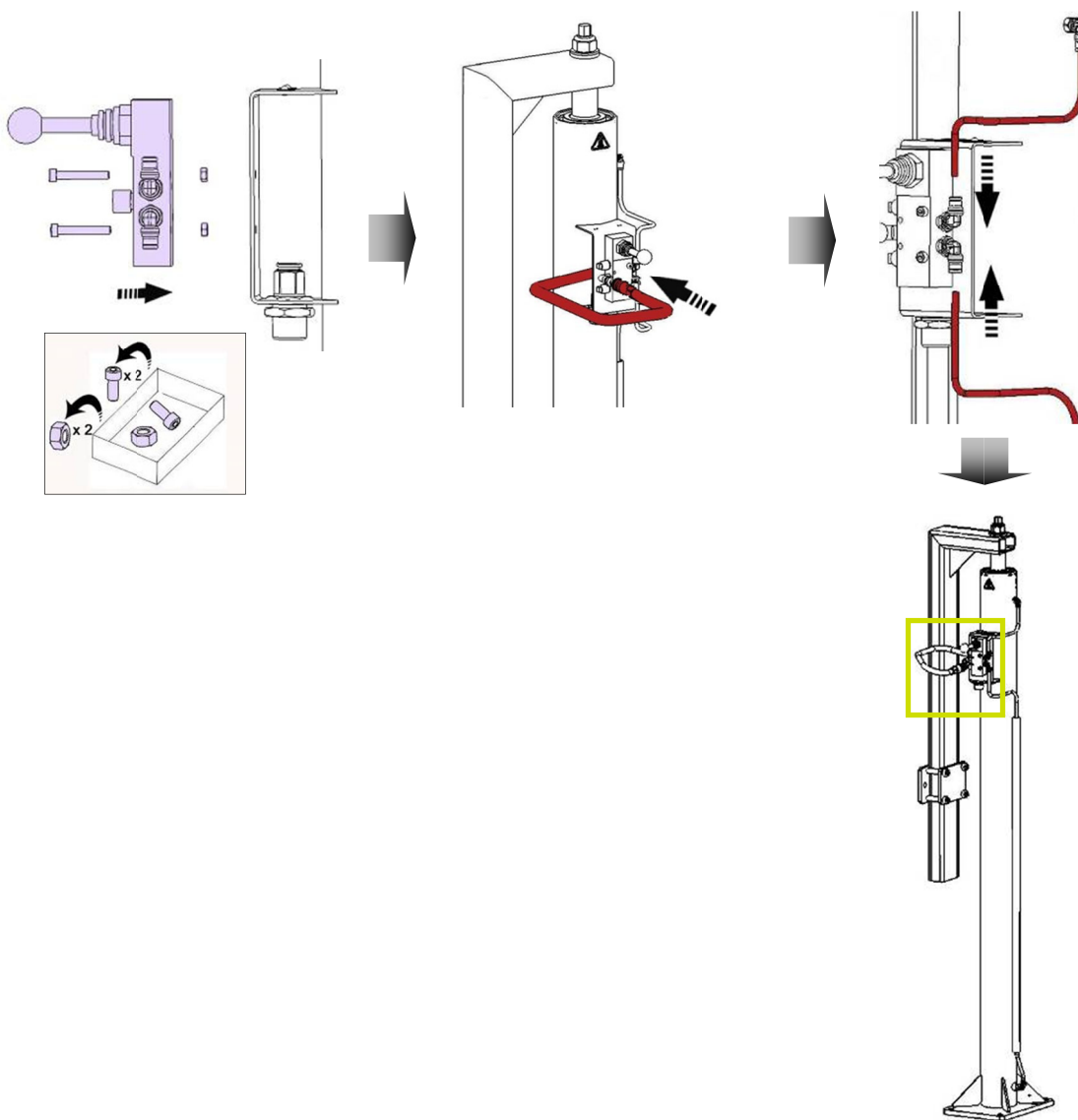


- ✓ Install the lever-arm on the ram.
- ✓ Screw the nut and the washer by means of a 30 mm spanner.

**Tools needed**

**30**





- ✓ Tighten the two screws and the two nuts of the ram control distributor by means of a 7 mm spanner and a 3 mm BTR wrench.
- ✓ Connect the quick release coupling to the air supply hose of the ram control distributor.
- ✓ Connect the two air supply hoses of the distributor to the ram control.

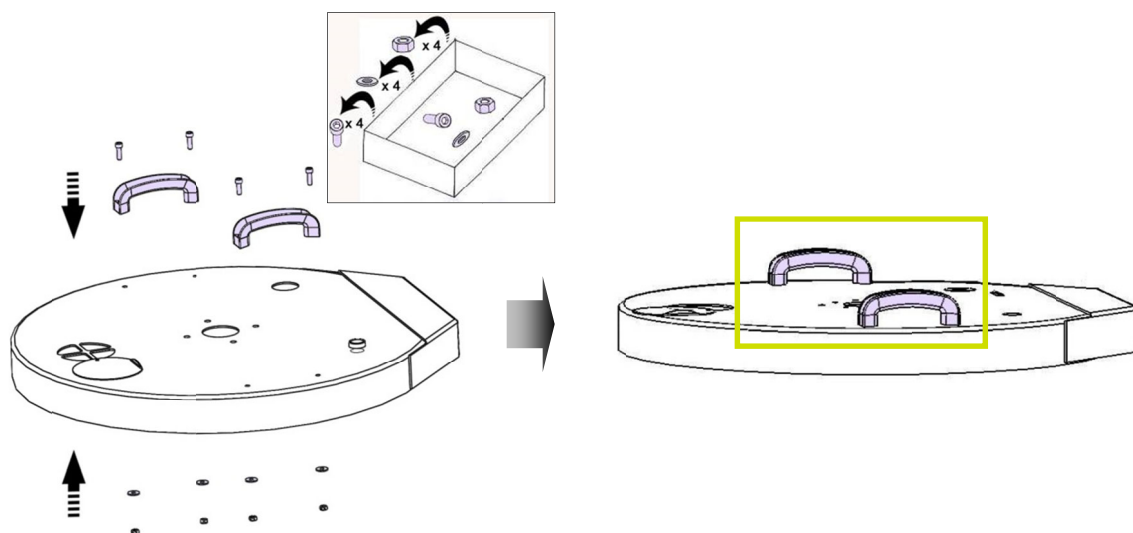
**Tools needed**

**7**



**3**





- ✓ Tighten the four nuts, the four washers and the four screws by means of a 5 mm BTR wrench and a 10 mm spanner to install the cover handles.

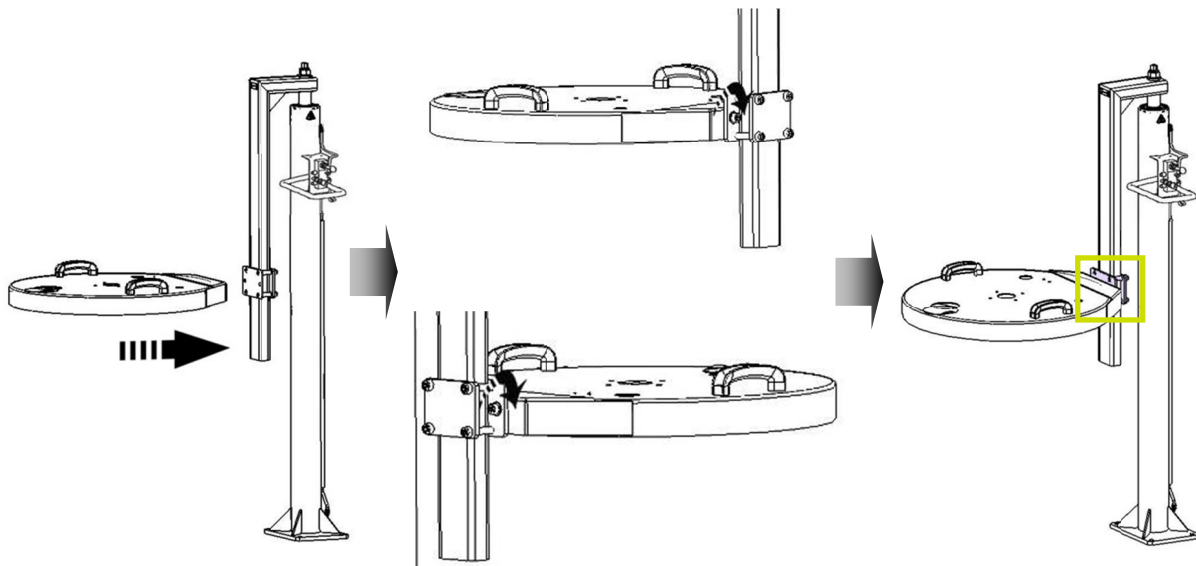
**Tools needed**

**10**



**5**



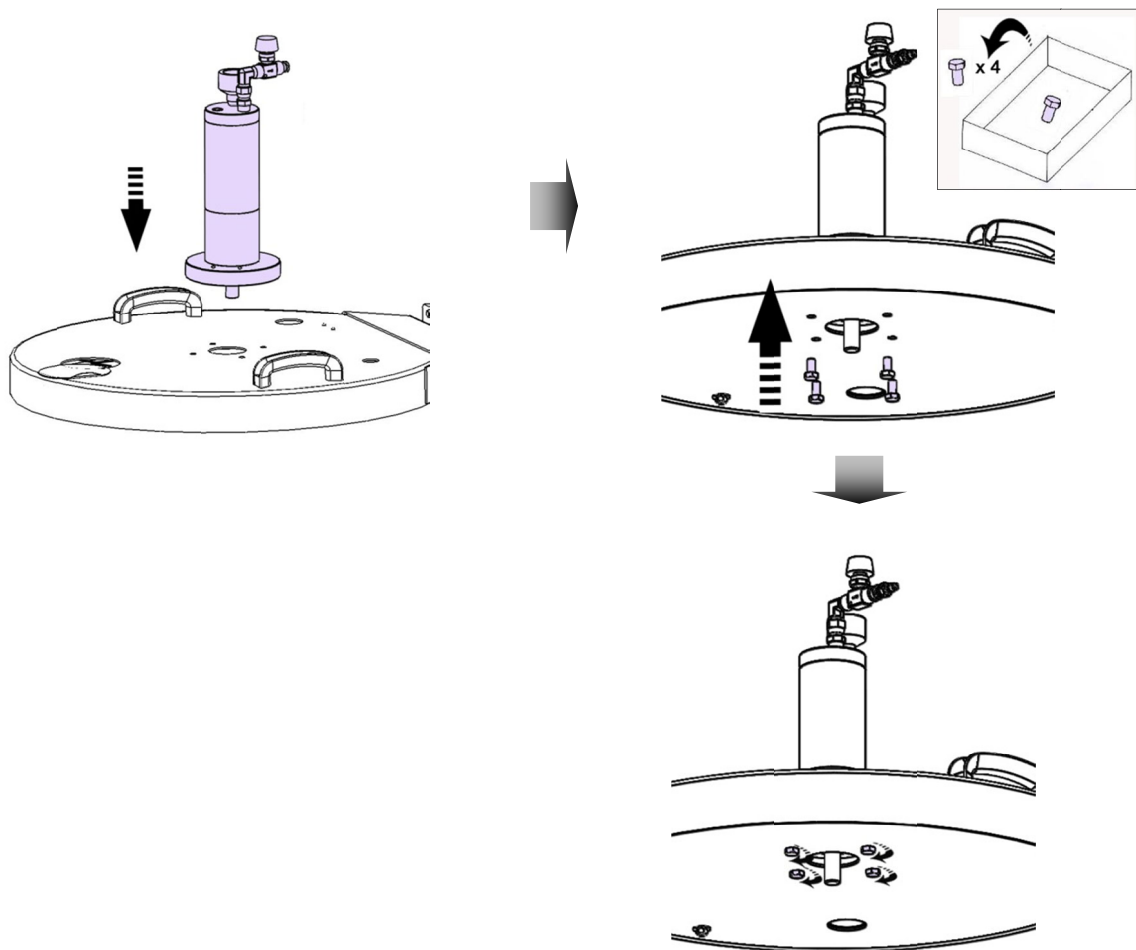


- ✓ Place the cover in front of the plate and the counterplate of the post-ram, then tighten the two screws and the two washers on the cover by means of a 8 mm spanner.

**Tools needed**

**8**



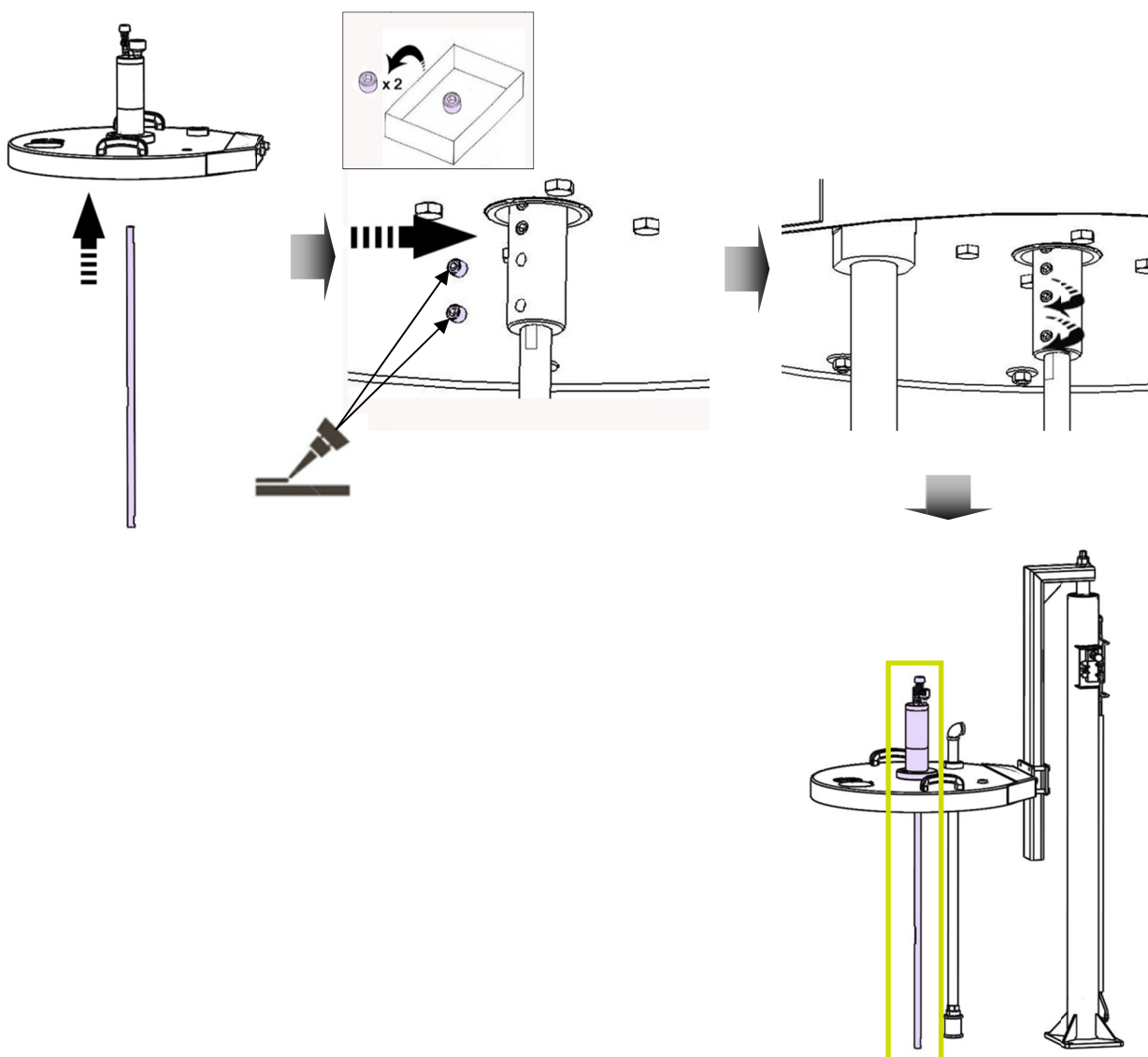


- ✓ Place the geared motor of the agitator in the centre of the cover.
- ✓ Tighten it by means of the four screws and of a 13 mm spanner.

**Tools needed**

**13**

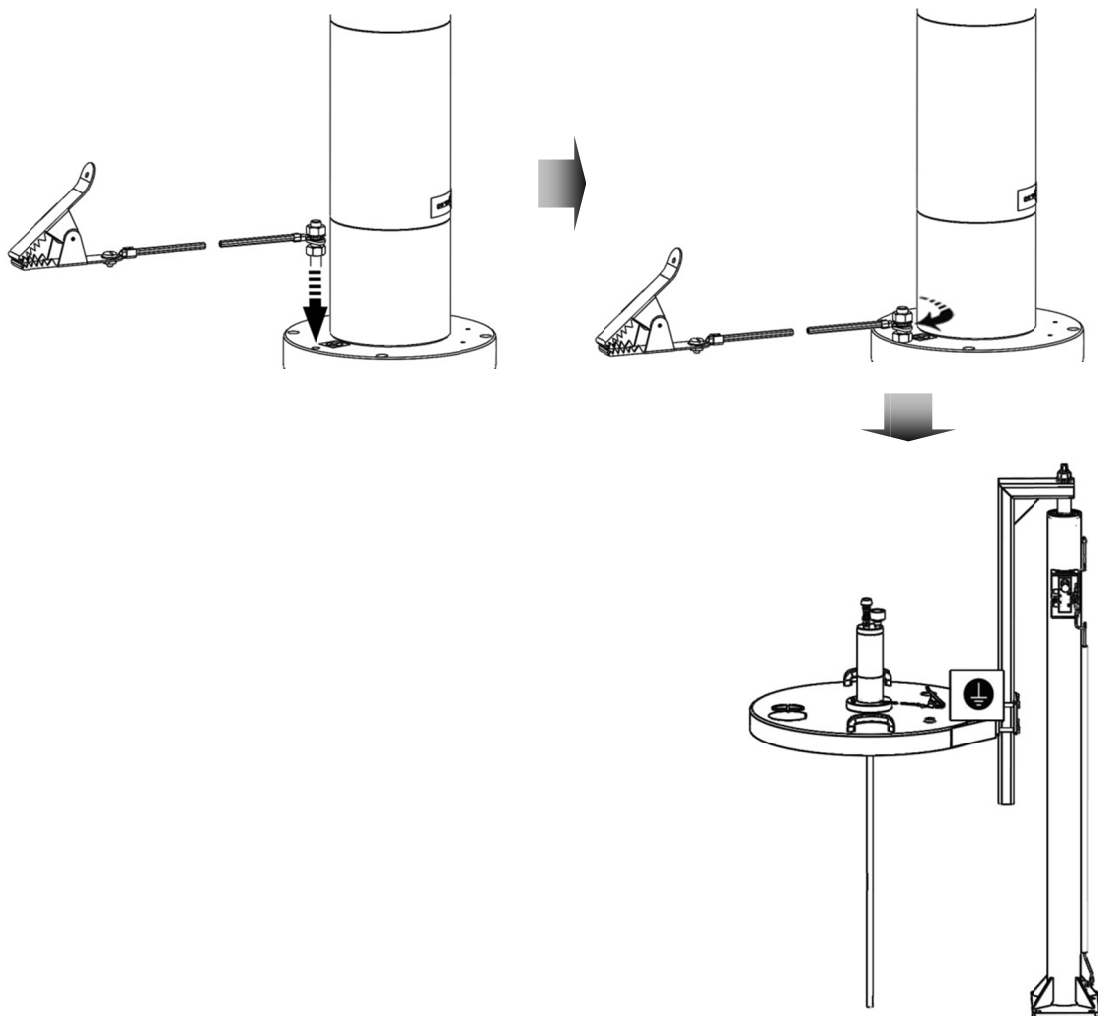




- ✓ Install the agitator rod in the sleeve of the geared motor.
- ✓ Apply glue (Loctite 5772) on the two needle screws and screw them on the sleeve by means of a 6 mm BTR wrench.

**Tools needed**



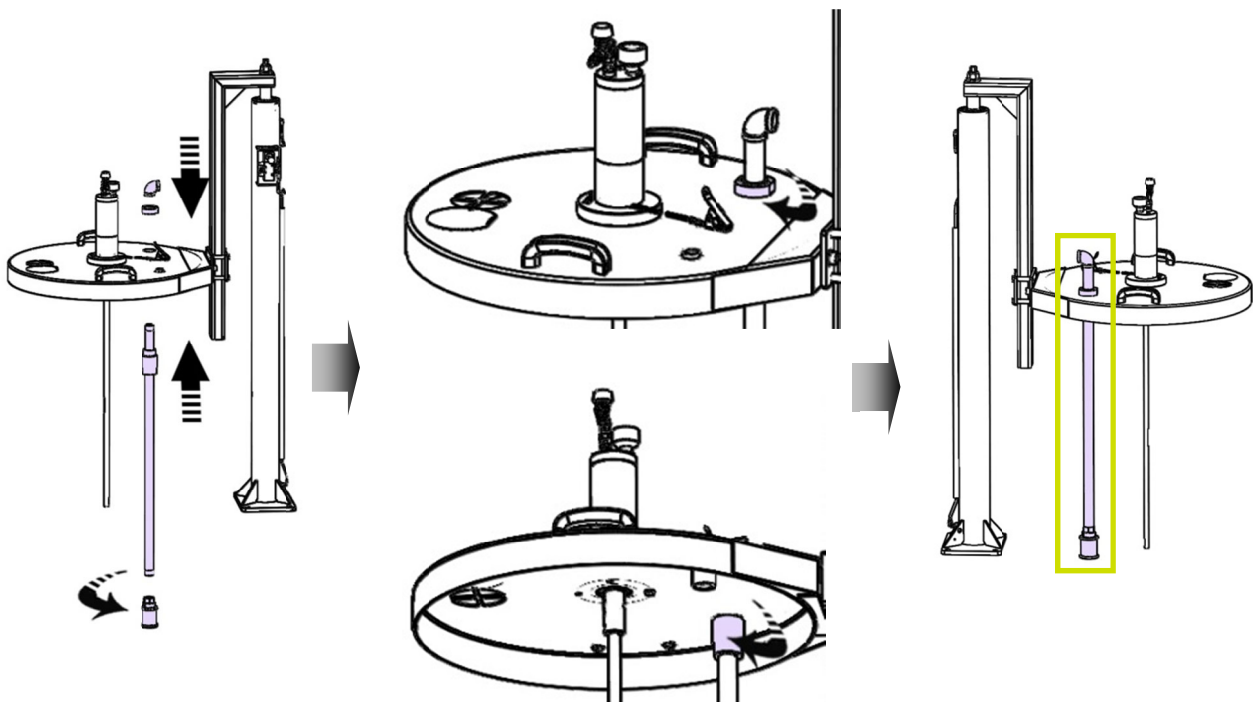


- ✓ Install the ground cable on the geared motor and tighten the screw by means of a 10 mm spanner.

**Tools needed**

**10**

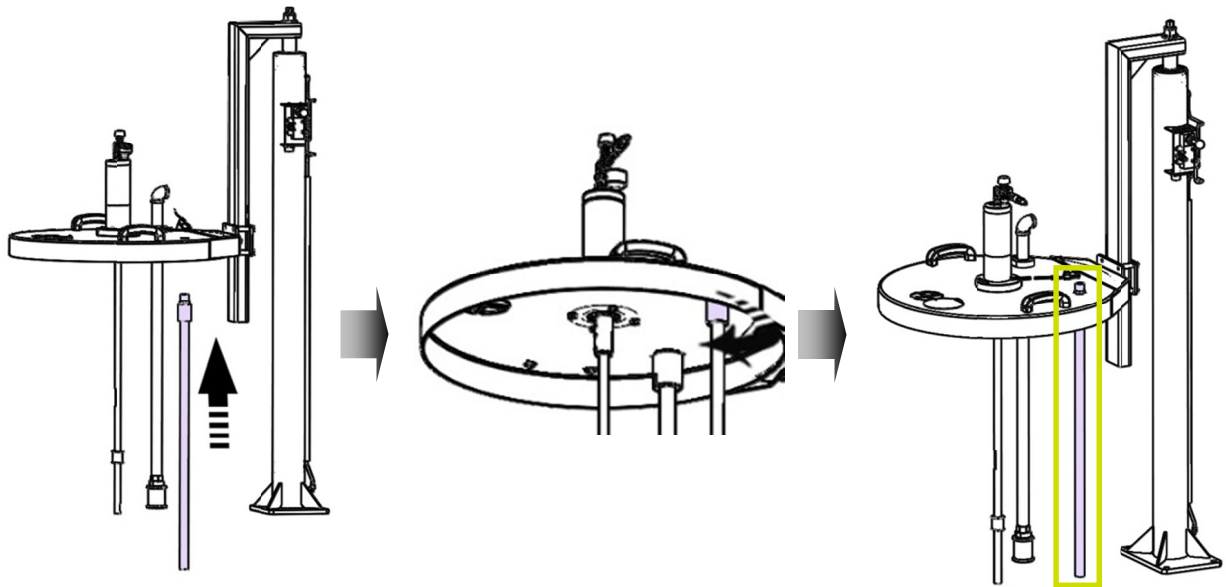




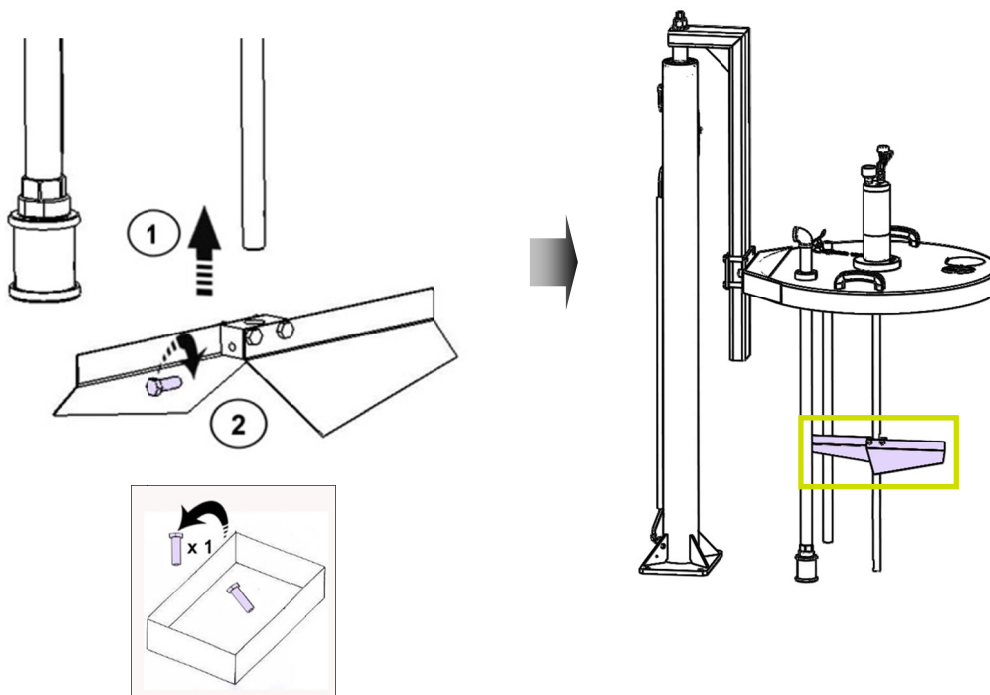
- ✓ Install the suction rod as well as the strainer.
- ✓ Tighten the nut by means of a spanner wrench.
- ✓ Tighten the ring.

**Tools needed**





- ✓ Install the return-rod and tighten the nut.

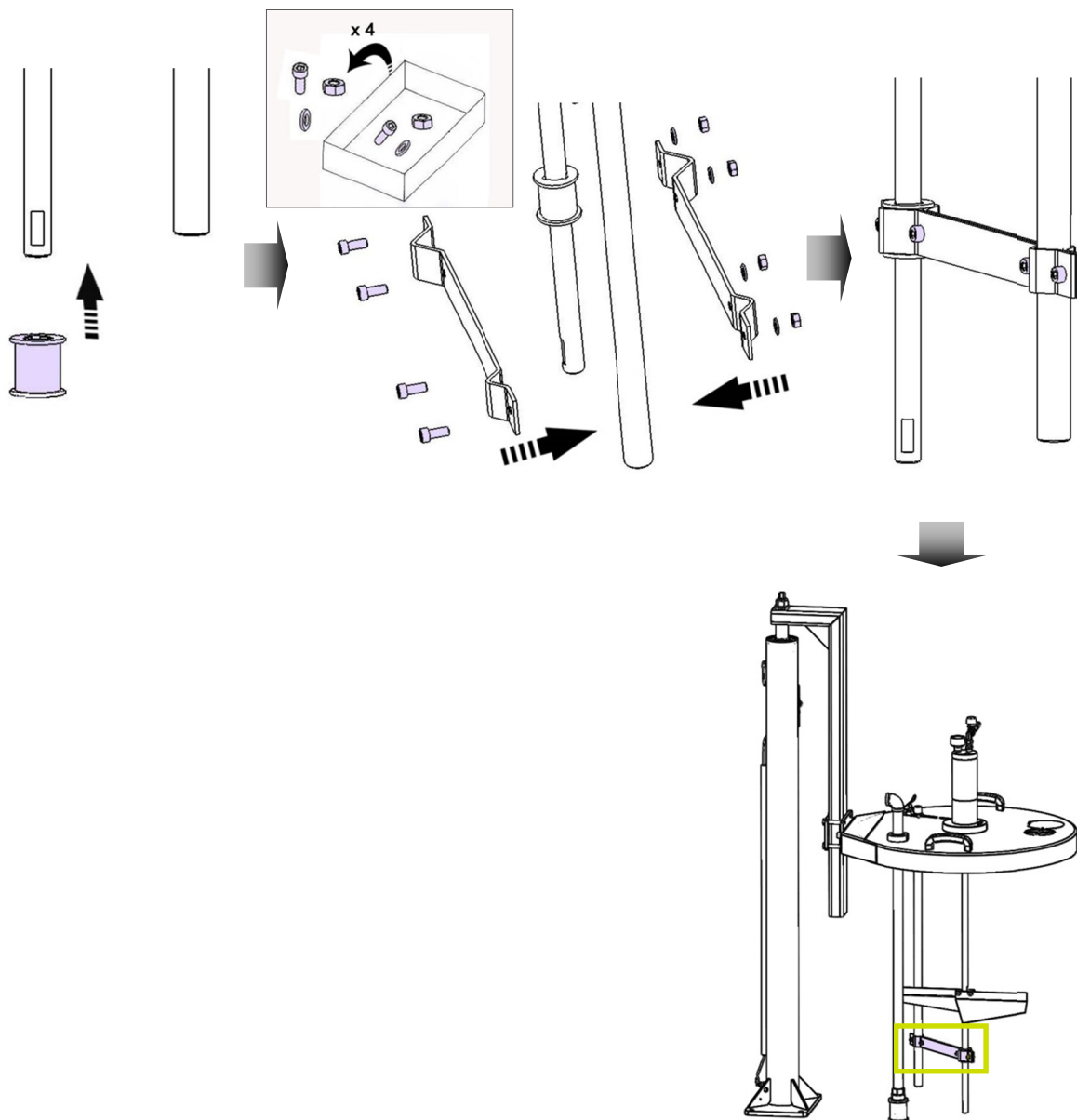


- ✓ Place the upper propeller on the agitator rod and tighten the screw by means of a 8 mm spanner.

**Tools needed**

**8**





- ✓ Install the ring on the agitator rod and place the agitator bracket on the rod as well as the return-rod.
- ✓ Tighten the four washers, the four nuts and the four screws by means of a 10 mm spanner and of a 5 mm BTR wrench.

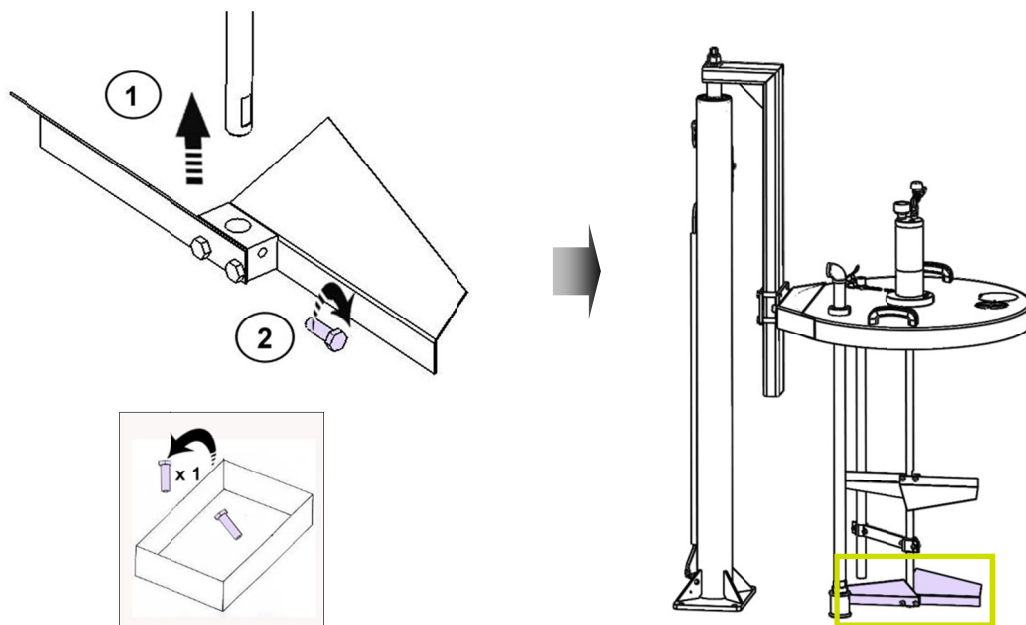
**Tools needed**

**10**



**5**





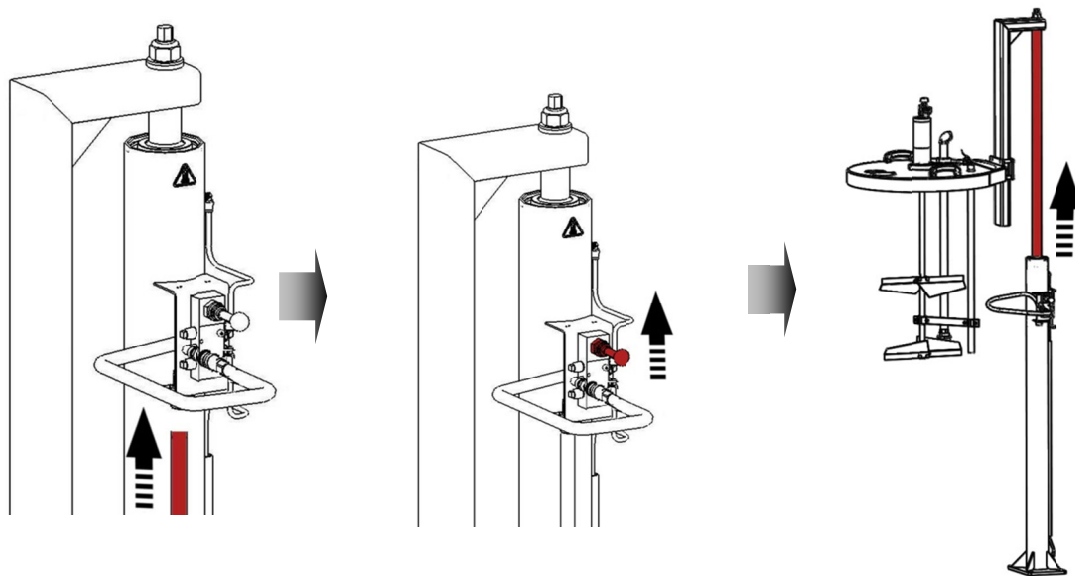
- ✓ Position the lower propeller on the agitator rod and tighten the screw by means of a 8 mm spanner.

**Tools needed**

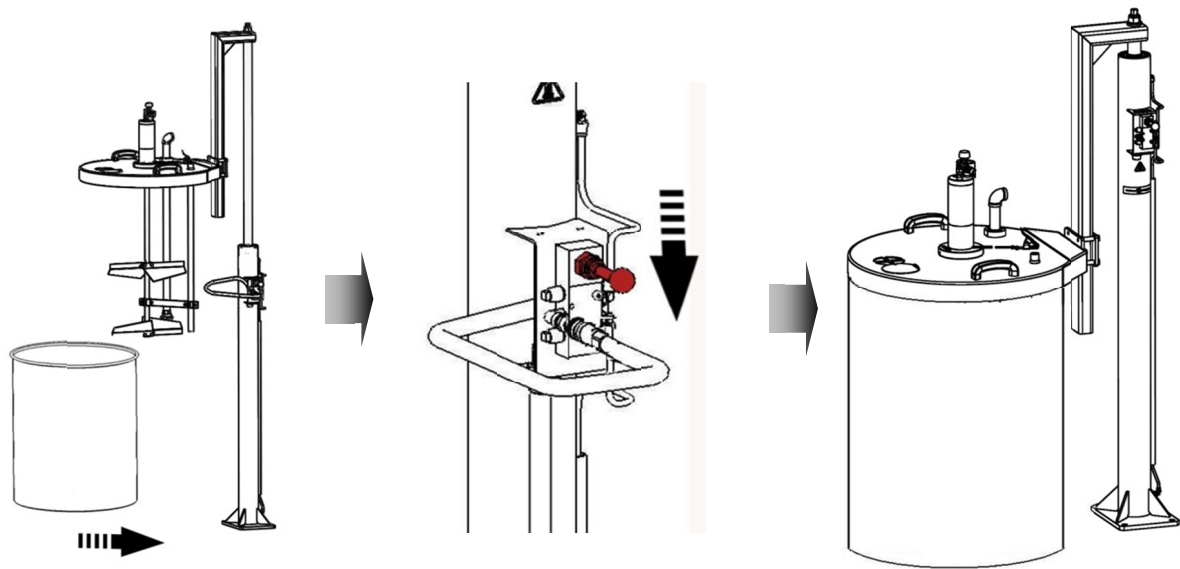
**8**



**Pay attention to the mounting of the propeller, which differs from that of the upper propeller.**



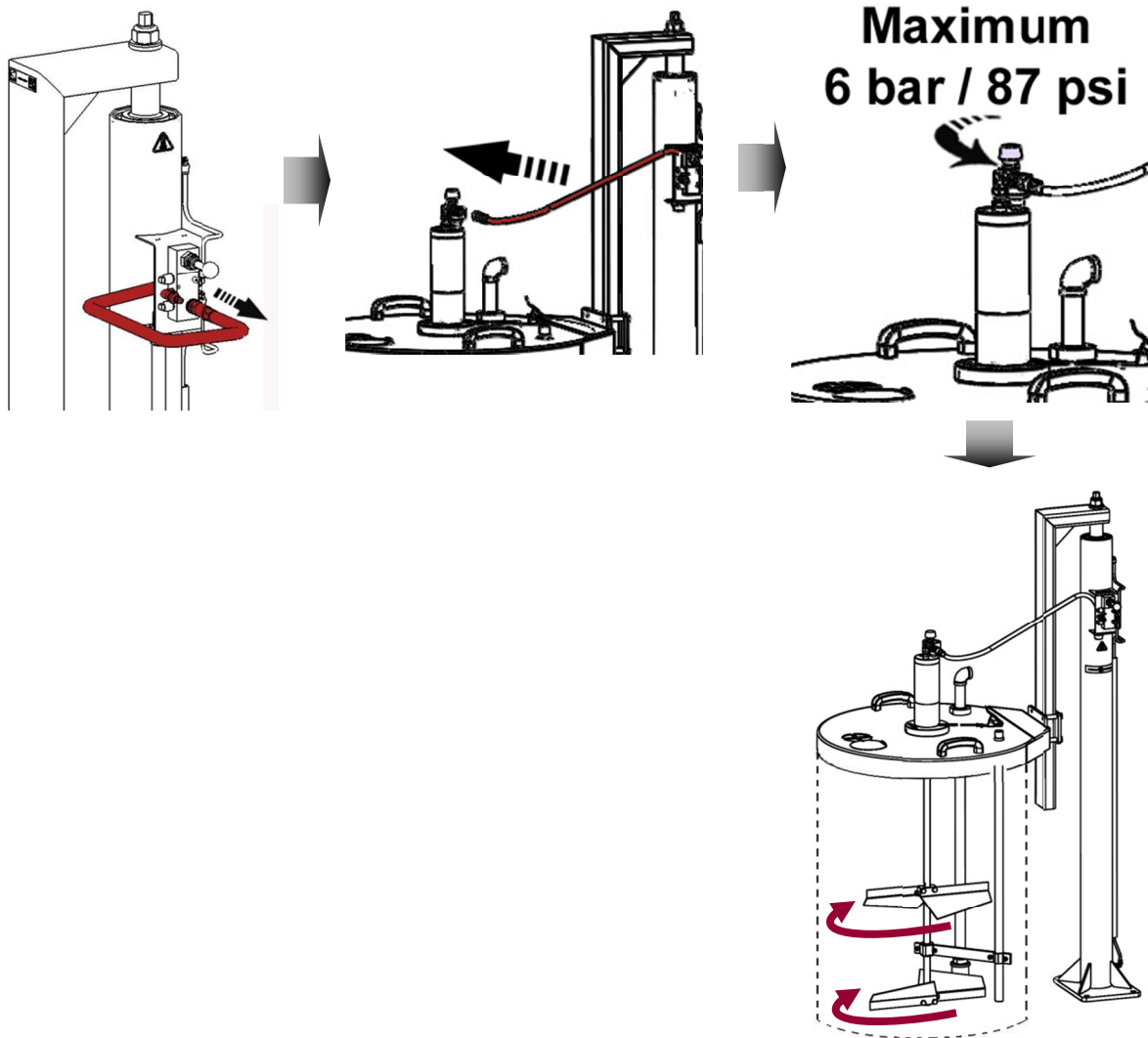
- ✓ Connect the main air supply network.
- ✓ Hold the ram control lever upwards. The arm/cover assembly lifts via the ram jack and moves upwards.



- ✓ Locate a drum under the agitation unit.
- ✓ Hold the ram control lever downwards. The arm/cover assembly goes down via the ram jack and moves downwards.



**Careful to center the drum in relation to the cover to avoid frictions and sparks from the propellers.**



- ✓ Disconnect the quick release coupling from the air supply hose of the ram control distributor.
- ✓ Connect the quick release coupling to the agitator air supply.
- ✓ Unscrew slightly the knob of the agitator air flow regulator to make the geared motor operate very slowly for a few seconds, then make it work normally.



**Do not operate the agitator to a too high speed. It can lead to a deterioration of the paint, vibrations and an early wear of the parts.**

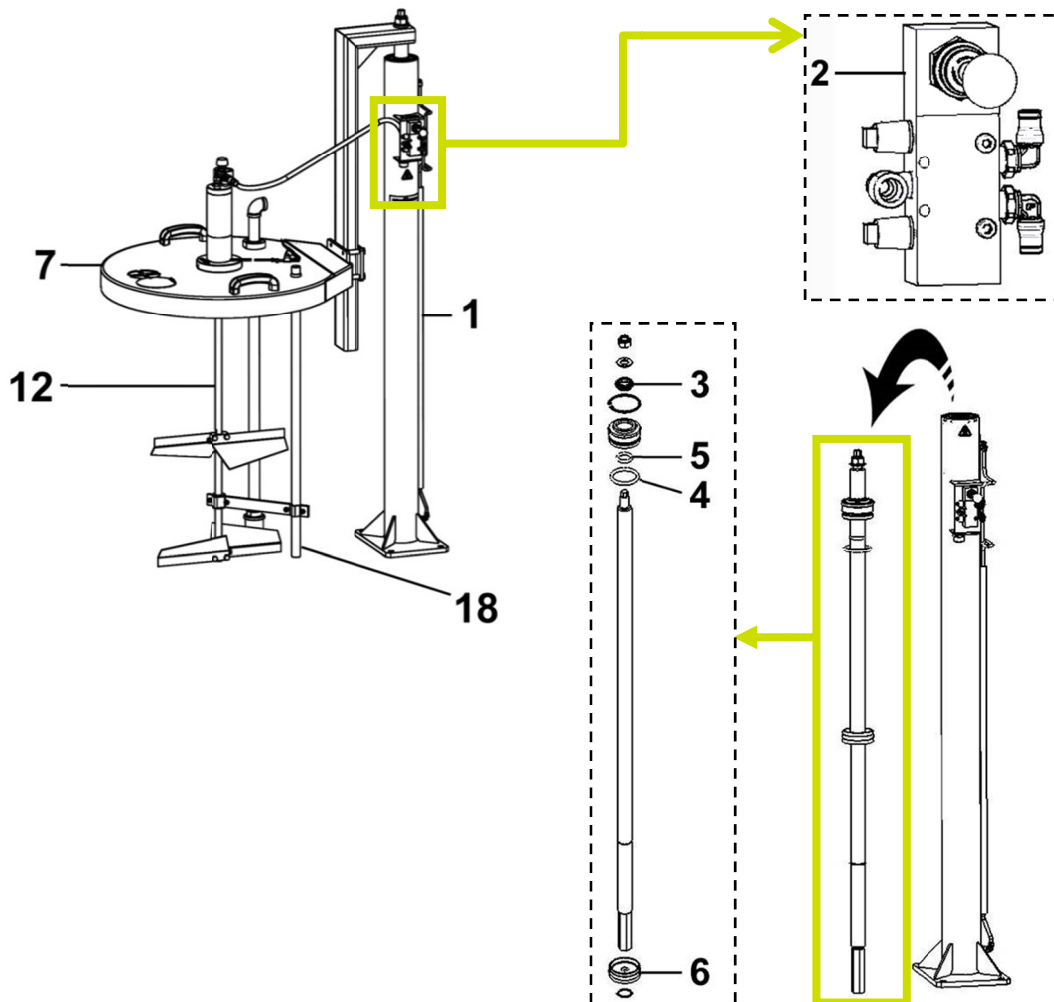
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## 20 Spare parts

**Use only genuine SAMES KREMLIN accessories and spare parts.**

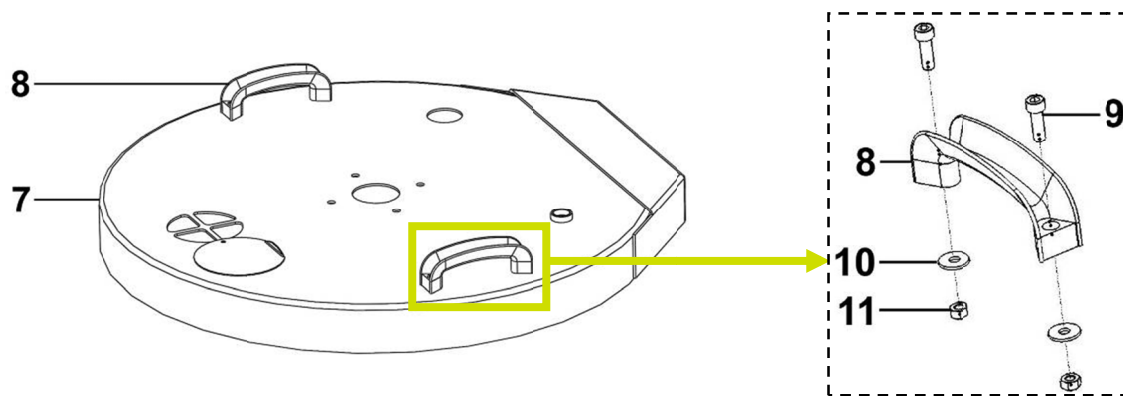
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### 20.1 Agitation unit CYCLIX II 200 L / 52.8 US gal

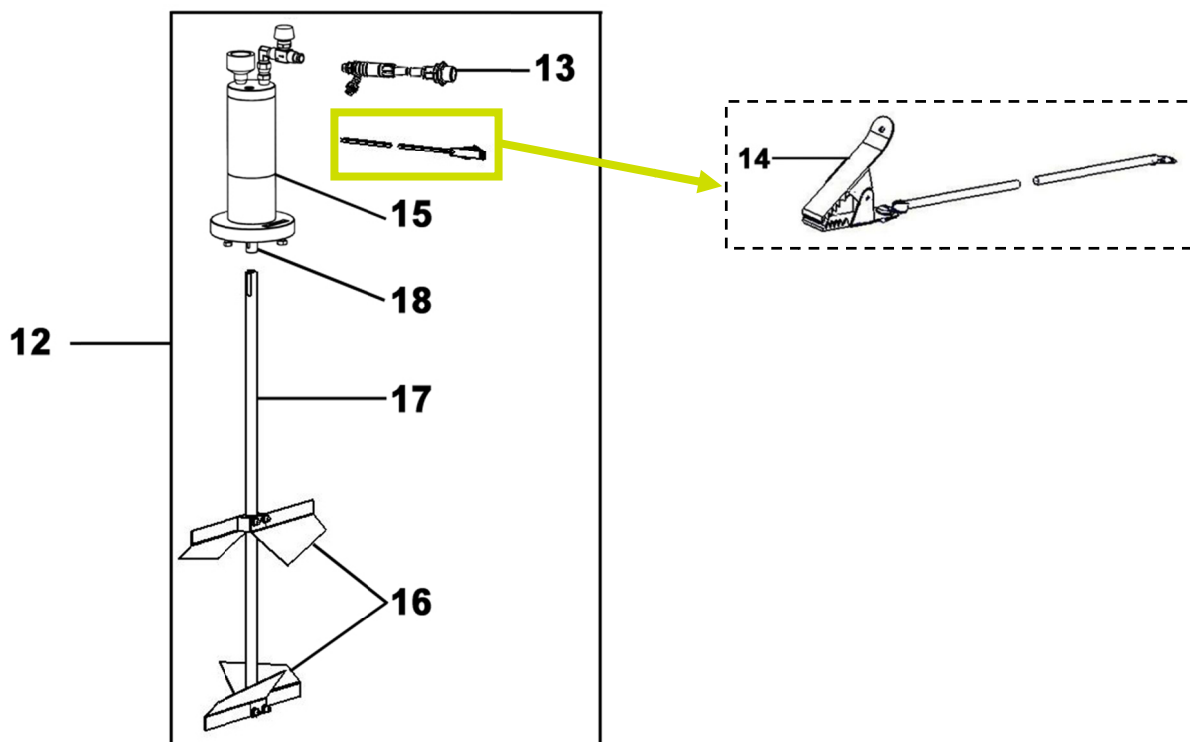


Ind	# Part numbers	Description	Qty
*1	151 091 000	Single-post ram	1
2	154 261 910	▪ Post-ram control assembly	1
3	NS	▪ Seal	1
4	NS	▪ NBR seal	1
5	NS	▪ NBR seal	1
6	NS	▪ Rod seal	1

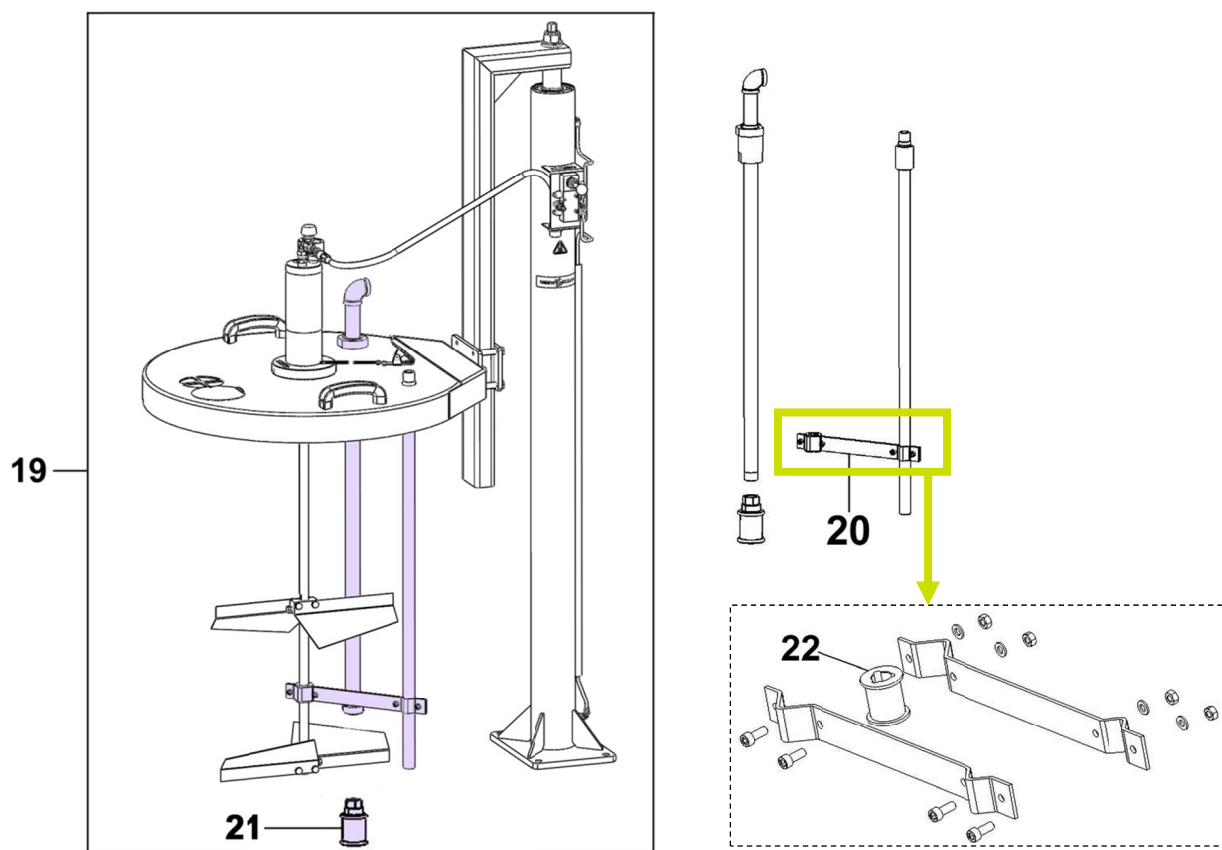
Ind	# Part number	Description	Qty
*_	154 261 915	Seal kit - Motor (ind. 3, 4, 5, 6)	1



Ind	# Part numbers	Description	Qty
*7	154 261 200	Cover	1
*-	154 261 920	▪ Cover servicing kit	1
8	NS	▪ ▪ Handle	2
9	NS	▪ ▪ Screw, model CHc M 6 x 20	4
10	NS	▪ ▪ Washer	4
11	NS	▪ ▪ Nut, model HM 6	4

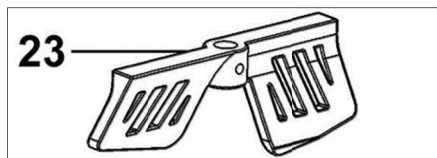


Ind	# Part numbers	Description	Qty
*12	154 261 300	Agitator 200 L / 52.8 US gal	1
13	154 261 930	▪ Air supply assembly	1
14	901 180 024	▪ Cable ground (Length : 5 m / 16.4 ft)	1
15	146 020 450	▪ Geared motor	1
16	154 261 950	▪ Propeller	1
17	91 874	▪ Agitator rod	1
18	NS	▪ Sleeve	1
-	934 171 124	▪ Screw (x 4)	1

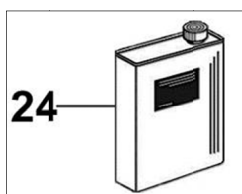


Ind	# Part numbers	Description	Qty
<b>*19</b>	<b>154 261 400</b>	<b>Suction assembly</b>	<b>1</b>
20	154 260 599	▪ Agitator support	1
21	154 261 940	▪ Strainer (x 2)	1
22	210 930	▪ Ring	1

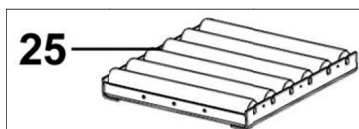
## On request



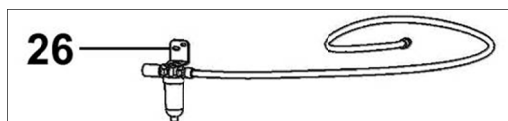
Ind	# Part number	Description	Qty
23	154 261 952	Openwork propeller	1



Ind	# Part number	Description	Qty
24	149 990 017	HP 150 oil (2 liters can)	1



Ind	# Part number	Description	Qty
25	151 098 100	Roller plate	1



Ind	# Part number	Description	Qty
26	154 261 996	Oil recovery assembly	1



Ind	# Part number	Description	Qty
27	154 261 997	Air lubricator 1/4 + support	1

Ind	# Part number	Description	Qty
-	154 261 990	Transformation kit	1

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\* Preceding the index number denotes a suggested spare part

N S: Denotes parts are not serviceable.

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