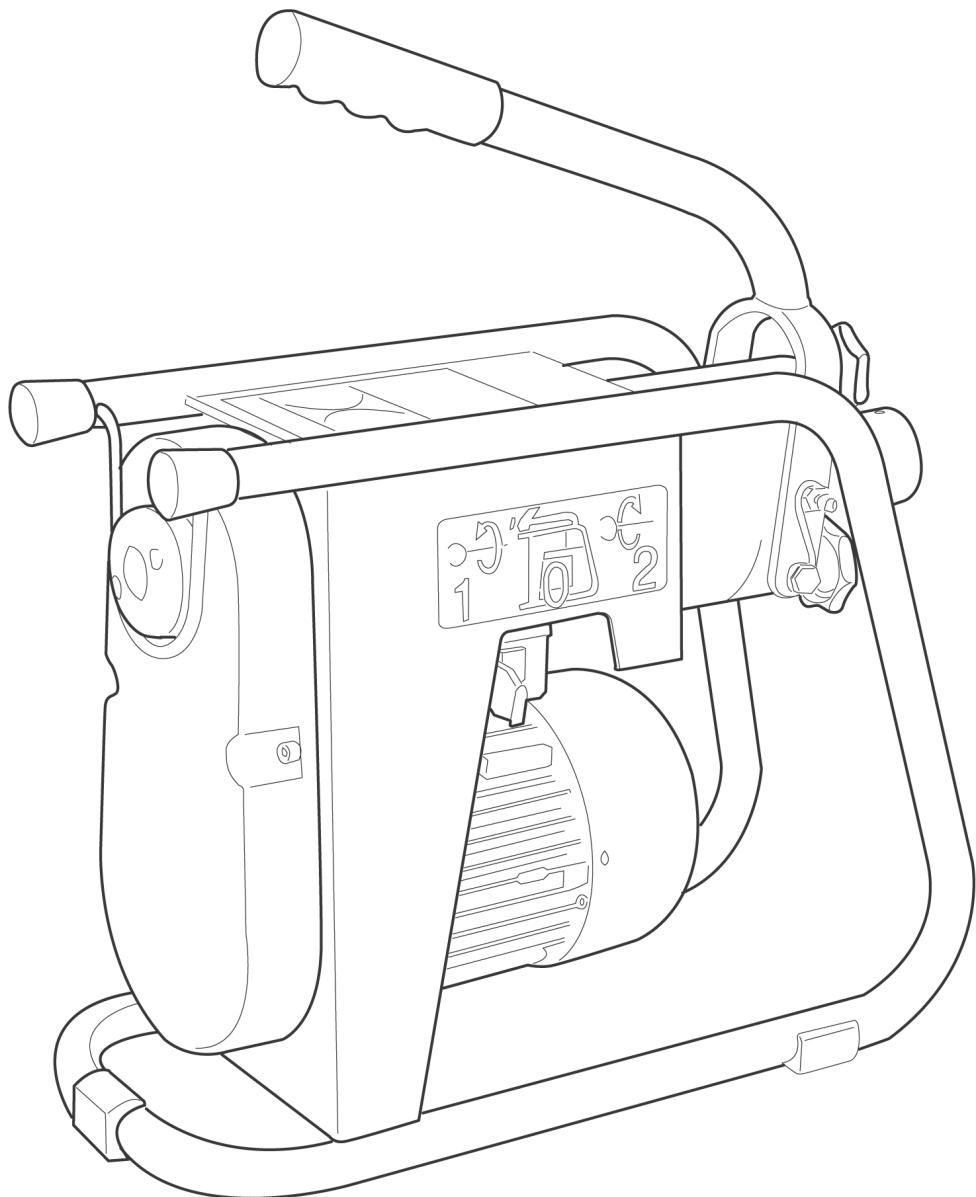


# USER'S MANUAL

## MINI VICTOR



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**RIONED**  
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**RIONED** has the right to change parts at any time without any prior or direct warning to the client. Also, the contents of this manual can be changed without any prior warning.

This manual is to be used only for this machine.

For extra information on adjustments, maintenance and repair, please contact the technical department of your dealer.

## **Foreword**

This user's manual is a manual for the professional user.

This user's manual has the purpose to control the machine in a safety manner and must be saved with the machine.

The photos and drawings help you understand the text easier.

First the user's manual gives you an overview of the most important safety aspects. Then we explain how the machine is built up and the global working of the machine.

Chapter "Technical specifications" gives you information about the working characteristics, performance under normal use and construction specifications.

"Control" is the next chapter. This chapter explains how to use the machine systematically.

In the chapter "Maintenance", the user can do small maintenance on the machine.

Chapter "Trouble shooting" has the purpose to solve simple defects.

With the "Exploded views" you can order original spare parts, are also useful for mounting, and disassemble the machine.

Finally gives the chapter "Appendix" information about electrical and/or hydraulic connections.



## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>7</b>
1.1	Use .....	7
<b>2</b>	<b>SECURITY.....</b>	<b>9</b>
2.1	Instruction indications in this manual.....	9
2.2	Descriptions security measures .....	9
2.3	Personnel protection outfit .....	9
2.4	Warnings.....	9
2.5	Personnel qualification and education .....	10
2.6	Danger that can occur if the security regulations aren't observed .....	10
2.7	Working safely .....	10
2.8	Security regulations for the user and technical service .....	10
2.9	Security regulations for maintenance, inspection and mounting activities .....	10
2.10	Making changes and fabricate spare parts.....	10
2.11	Improper use.....	10
<b>3</b>	<b>TECHNICAL SPECIFICATIONS .....</b>	<b>11</b>
3.1	General .....	11
3.2	Engine.....	12
<b>4</b>	<b>CONSTRUCTION.....</b>	<b>13</b>
<b>5</b>	<b>CONTROL .....</b>	<b>15</b>
5.1	Transport.....	15
5.2	Controls .....	15
5.3	Before unblocking .....	17
5.4	Unblocking .....	18
<b>6</b>	<b>MAINTENANCE.....</b>	<b>19</b>
6.1	General .....	19
6.2	Cleaning the clamping system.....	19
6.3	Lubrication .....	19
6.4	Security guide hose with adapter.....	19
6.5	Extensive periodical maintenance .....	19
6.6	Maintenance schedule .....	20
<b>7</b>	<b>ACCESSORIES .....</b>	<b>21</b>
7.1	Auxiliaries that can be coupled: .....	21
<b>8</b>	<b>EXPLODED VIEWS .....</b>	<b>25</b>
8.1	Mini Victor .....	26
8.2	Mini Victor with Dual Drive .....	27
8.3	Adaptor drum.....	28
<b>9</b>	<b>APPENDIX.....</b>	<b>29</b>
9.1	EC declaration Of Conformity For Machinery .....	29
9.2	Sales Managers.....	30

9.3	Safety instructions .....	31
<b>10</b>	<b>INDEX .....</b>	<b>33</b>

# 1 INTRODUCTION

RIONED wishes to thank you for your purchase of the RIONED drain and sewer-clearing machine. We recommend that you read this manual thoroughly and see that the machine is handled and maintained in the proper manner. If your machine should give trouble and need servicing, when you want to order parts, or if you have any questions, contact your RIONED dealer.

The machine is built by:

**RIONED**  
P.O. Box 5070  
5004 EB Tilburg  
The Netherlands  
Telephone: +31 13 5479100  
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Your machine is specifically designed to clean drain- and sewer pipes with a diameter from  $\varnothing$  32 mm till  $\varnothing$  150 mm by using specially manufactured cleaning springs with a diameter of  $\varnothing$  16 mm, till  $\varnothing$  22 mm diameter.

The machine may only be used by authorized personnel.

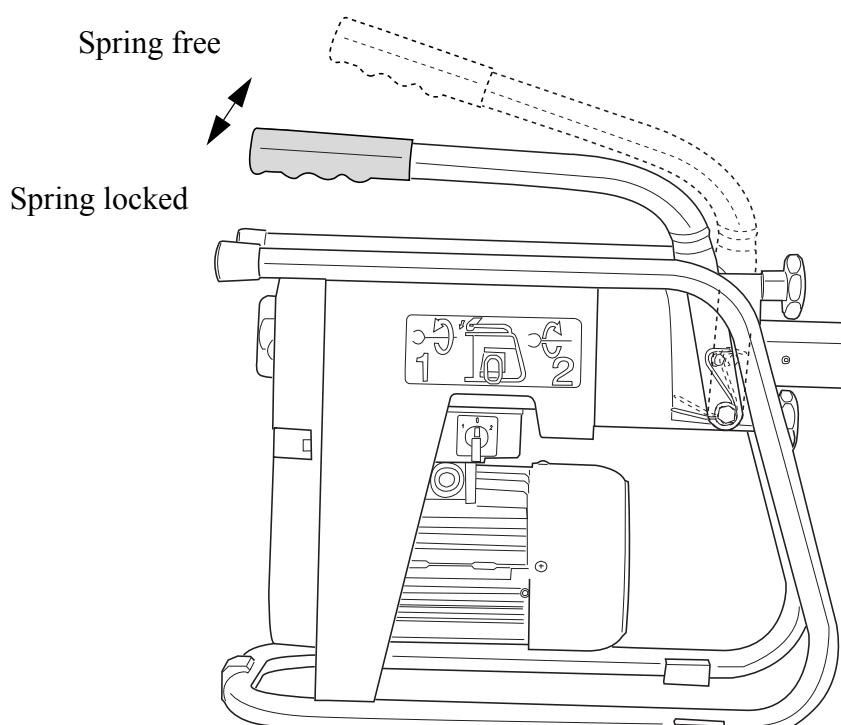
The machine can not be used in an explosive environment.

Fill the security guide hose only with springs we describe in this manual.

In this manual you will find all necessary information concerning operations and maintaining your machine. If handled properly, your machine is guaranteed according the general delivery conditions.

## 1.1 Use

The main shaft is driven by an electrical motor, by means of a belt transmission inside the housing. The main shaft is connected to the clamping system. By pushing the control lever downwards, the two clamps grip on the spring. Now the spring starts turning. By releasing the control lever, the spring stops turning. The spring can now be transported forwards and backwards.





## 2 SECURITY

Be responsible for other people when you are working with this machine.

This manual contains instructions for fundamental conditions that must be followed by use and maintenance of this machine.

That is why it is necessary that authorised and qualified personnel must read the user's manual and the user's manual must always be available with the machine. Near the general regulations in this chapter, you must also follow the security regulations in the other chapters.

**2.1 Instruction indications in this manual** The in this manual containing security instructions, which are dangerous if they are not obeyed, are marked with general security signs.



Security sign DIN 4844-W9

**2.2 Descriptions security measures**

- Emergency stop  
This machine is equipped with an emergency stop. By operating the emergency stop, the machine will stop immediately. Do not use this button for normal stopping. Only use it when dangerous situations occur. After use, remove the danger and pull the emergency stop in order to be able to start up again. Make sure the emergency stop can always be reached.
- Security covers  
This machine is equipped with several security covers over parts that are rotating. It is forbidden to remove these security covers during operating this machine. You can only remove them if there is maintenance on the machine. Stop the machine and take the plug out of the wall socket.

**2.3 Personnel protection outfit**

- Protection looking glasses
- Gloves (Recommended)

**2.4 Warnings**

Never take the spring when turning.

Do not let the spring turn outside ( swing of the spring).

Take care of a stable disposition of the machine.

Never block the control lever, unless this is mentioned.

Do not wear cloth that hangs loose.

Please note safety instructions (*See Chapter 9.3 "Safety instructions" page: 31*).

Always use a wall socket that is earthed.

Never start the machine with the control lever downwards.

Never touch the spring if it is rotating. Not even with auxiliaries or other tools.

Never let the spring rotate outside a sewer, drain or pipe.

Always use the security guide hose or the adapter drum.

Make sure the machine is stable during operation.

Do not let the machine operate without supervision.

**2.5 Personnel qualification and education** Personnel that use, maintain and inspect the machine must have the right qualifications for this job. Responsibility and authorisation of the personnel and the supervision on the personnel must be embedded. If the knowledge is not present, the user must provide for the necessary education.

**2.6 Danger that can occur if the security regulations aren't observed** If the security regulations are not observed, danger can occur for personnel and for the environment. No amends are given if the regulations are not observed.

If the regulations are not observed, this can result in:

- Failure of important functions of the machine.
- Failure of prescribed methods for maintenance.
- Exposure of persons to dangers of electrical or mechanical failures

**2.7 Working safely** The in this manual named security prescriptions, the national prescriptions to prevent accidents and the internal labour, company and security prescriptions must be followed by the user.

**2.8 Security regulations for the user and technical service**

- Protections of moving parts (for example couplings) may not be removed if the machine is working.
- Leakage of dangerous mediums must be disposed in a manner that there is no danger for the personnel and environment. Statutory regulations must be followed.
- Danger caused by electricity must be excluded.

**2.9 Security regulations for maintenance, inspection and mounting activities**

- The user sees to it that qualified technicians do all maintenance, inspection and mounting activities. They must study the manual thoroughly.
- Maintenance may only be done when the machine is not functioning and the plug is out of the wall socket.
- In the user's manual mentioned handling to stop the machine must be notified.
- Directly after maintenance of the machine, all the security and protection facilities must be functionally.
- Before starting the machine again, you must follow the instructions correctly.

**2.10 Making changes and fabricate spare parts** Changes to the machine are only permitted if Rioned has given written authorisation. The use of original spare parts and accessories are for the safety necessary. Rioned is not responsible for injuries or damages if other spare parts are used.

**2.11 Improper use** The security during working with the machine is only guaranteed if the use of the machine is conform the user's manual. The limits that are written in chapter "Technical Specifications" and "Appendix" may never be overstepped.

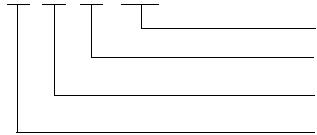
If the machine does not work or give troubles, it is forbidden to work further with the machine. Telephone your dealer or the technical department of Rioned

Telephone: +31 (0) 13-5479100

This manual contains all the necessary information concerning control and maintenance. If the device is positioned correctly, properly controlled, and regularly maintained, a warranty will be given according to the general conditions of delivery. However, should it arise that the control and maintenance procedures are not diligently followed, the warranty will become invalid.

### 3 TECHNICAL SPECIFICATIONS

#### 3.1 General

Description ( <i>symbol</i> )	Unit
Type	: Mini Victor.
Total length ( <i>l</i> )	: 0,452m
Total height ( <i>h</i> )	: 0,560 m control lever up 0,430 m control lever down
Total width ( <i>b</i> )	: 0,210 m
Weight (dry) ( <i>m</i> )	: 17,5 kg
Spring length ( <i>l</i> )	: 2 m and 4 m
Maximum spring length ( <i>l</i> )	: 12 m, spring Ø 22 mm 40 m, spring Ø 16 mm
Spring diameters without adaptor drum ( <i>d</i> )	: Ø 16 mm and Ø 22 mm
Spring diameters with adaptor drum ( <i>d</i> )	: Ø 8 mm and Ø 10 mm
Springs suitable for sewer diameter ( <i>d</i> )	: Ø 32 mm to Ø 250 mm
Place type plate	: Side engine
Place frame number: XX XX XX XXX	: on house by bow
	
	Following number
	Year of construction
	Month
	Mini Victor
Measured sound value	: 70 dB (A) Spring Ø16 fixed
Position	: A person kneeled down measured by ear.
In and out speed spring ( <i>v</i> )	: Manual
Rotation direction	: Left and right
Number of revolutions main axle ( <i>n</i> )	: 730 rpm
Year of construction ( <i>month/year</i> )	: 04/12

---

### **3.2      Engine**

---

Description ( <i>symbol</i> )	Unit
Type	: AEG AE 71B 4T
Number of revolutions ( <i>n</i> )	: 1330 rpm
Power ( <i>P</i> )	: 0,450 kW <i>1 HP</i>
Voltage ( <i>U</i> )	: 230 V according to IEC38
Frequency ( <i>f</i> )	: 50 Hz.
Current ( <i>I</i> )	: 3,3A
Condensator	: 20 MF
Security	: Thermal
Cos φ	: 0,97
Isolation class	: IP 54

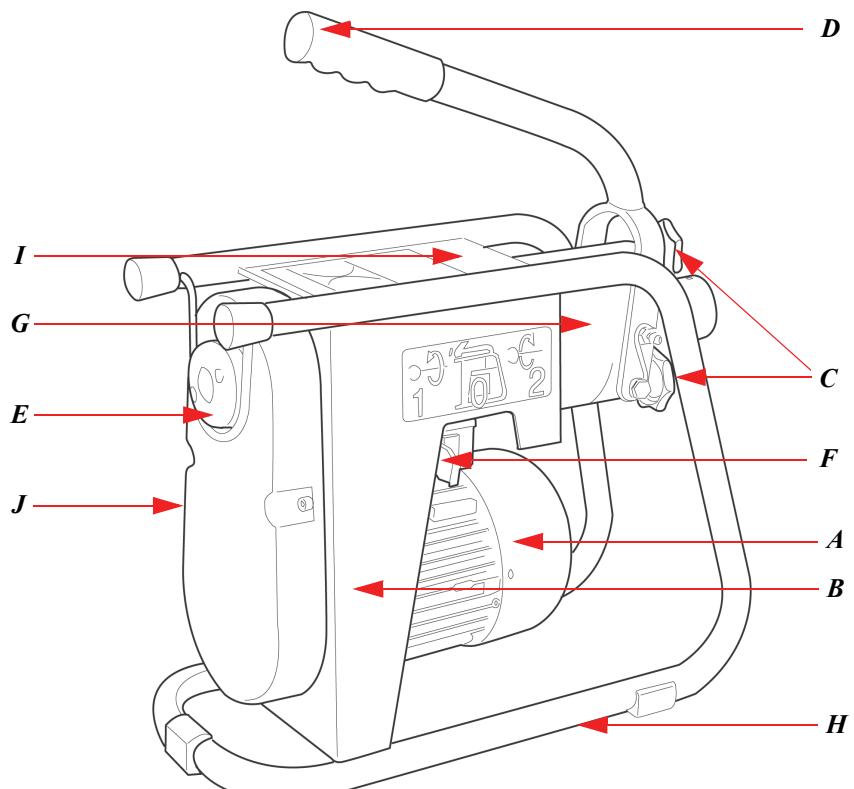
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## 4 CONSTRUCTION

The machine contains the following main parts:

**Illustration 4.1**

- |   |                            |
|---|----------------------------|
| A | Electric engine            |
| B | Housing                    |
| C | Star knobs                 |
| D | Control lever              |
| E | Security for control lever |
| F | Switch                     |
| G | Clamping system housing    |
| H | Frame                      |
| I | Place frame number         |
| J | Security V-belt            |



*Afbeelding 4.1  
Veermachine Mini Victor*



## 5 CONTROL

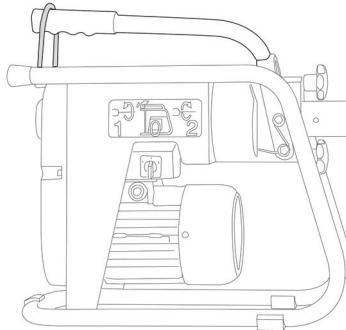


If you control, maintain or inspect the machine, you must have the right qualifications for this job. If you do not have the necessary knowledge, you may not use the machine. Further, you must convince yourself that you understand this manual thoroughly.

### 5.1 Transport

See to it before you transport the machine:

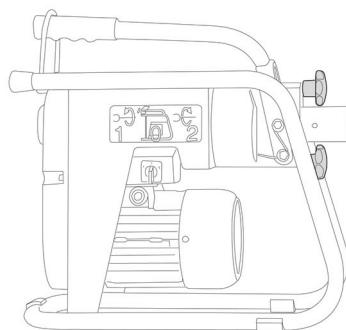
- That the plug is out of the wall socket.
- The spring is out of the machine.
- The security guide hose is dismantled.



You can use the control lever as a carrying handle. You must hook the bow over the control lever.

### 5.2 Controls

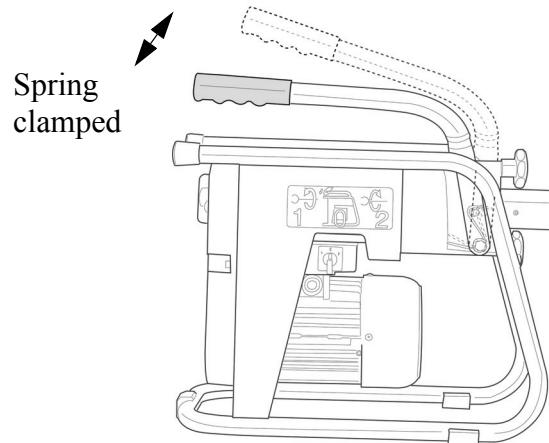
1. Star knob:  
By loosening the two star knobs, you can dismantle the clamping system.



2. Control lever:  
By pushing the control lever downwards, the spring starts turning. When you release the

control lever or push it upwards, the spring stops turning.

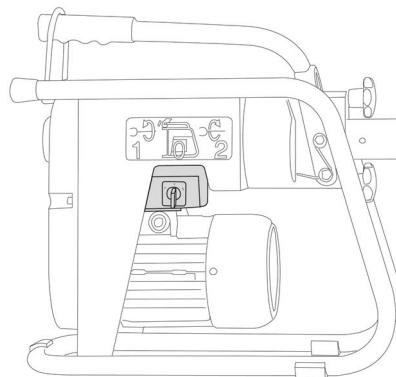
Spring loose



3.

Switch position **1**:

In this position, you start the machine. The main axle begins to turn.



4.

Switch position **0**:

In this position the rotation stops.

5.

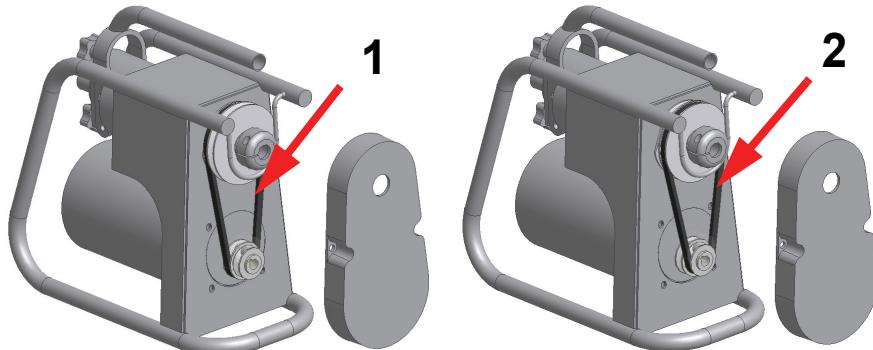
Switch position **2**:

In this position main axle rotates the other direction.

### 5.3 Before unblocking

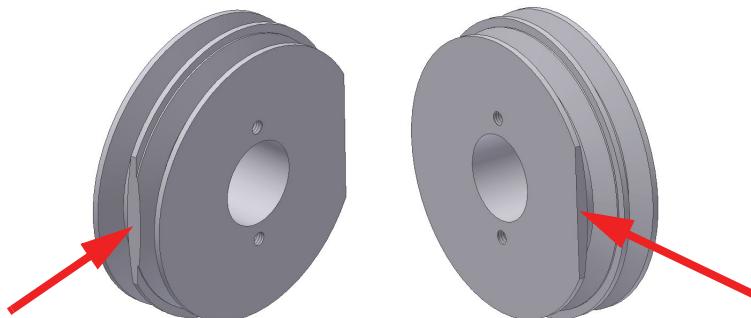
In type "Dual Drive", adjust the position of the belt in:

1. **Low speed (rear position against the frame) for use with adapter drum.**
2. High speed (front position, to guard against) for use of eg 16 mm spring.



Method::

1. Unplug the power cord.
1. Unscrew the two knurled screws loose.
2. Remove the cover.
3. Use the notches on the upper pulley to switch the V-belt.



4. Screw the cap down with the two knurled knobs.
5. Insert the plug into the socket.

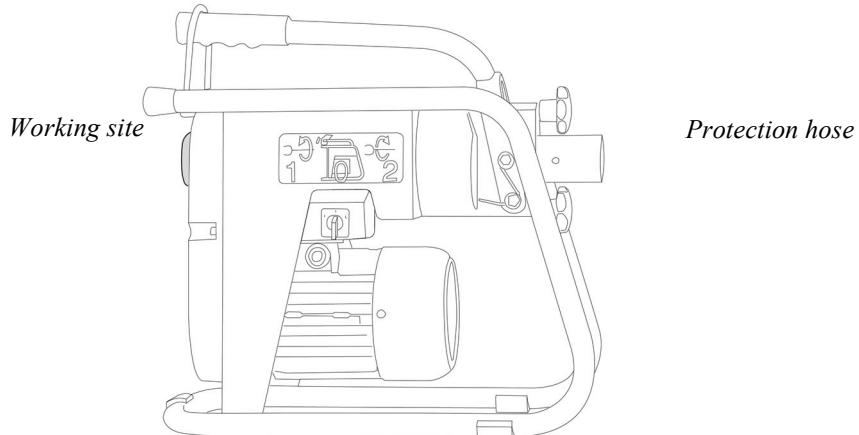


**Attention!**

Entering the spring should only be done with the engine off.

1. Place the machine as close as possible near the drain or sewer to be cleaned.
2. Connect the security guide hose to the clamping system.
3. Choose a Ø16 mm spring for drains from Ø38 to Ø75 mm. Choose a Ø22 mm spring for drains from Ø75 to Ø150 mm.  
Choose the 8 mm or 10 mm adapter drum for drains with small diameter.

- Put the spring into the machine and into the security guide hose.



- Connect the desired cleaning aid to the spring (see chapter 7.1 Auxiliaries that can be coupled: page: 21).
- Feed the spring in the drain or sewer opening until you notice any resistance.
- Couple, if necessary, a second spring after the first spring if the blockage is not reached. You can couple the end of the first spring at the coupling on the front of the frame when you put the second spring into the machine. You prevent this way that the first spring disappears into the sewer.
- See to it that there is ±0,5 m spring between the machine and the inlet opening.

#### 5.4 Unblocking



**Attention!**

Only feed the spring when the motor is switched off.

- Release the spring.
- Switch position **1** to start the engine.
- Push the control lever downwards. The spring feed his way into the dirt.
- Release the control lever, pull the spring and push the control lever. The spring shall works his way further into the dirt. Repeat this movement until the blockage is disappeared or the end of the spring is in sight.
- If the end of the spring is in sight, couple then a new spring on the end from the spring that is already in the sewer. Do this till the blockage is disappeared.
- Is the pipe clean, turn the direction of the spring. Turn the switch position **2**. The spring will now, if the control lever is downwards, come out of the pipe.
- Move, if necessary, several times the spring back and forwards at the place of blockage.

If slip occurs during pushing the control lever, pull immediately the control lever upwards. Change the rotation direction and push the control lever downwards again.

If the slip does not disappear, the spring is locked in the pipe and must be pulled out or the clamping system is damaged and must be replaced.

Clean the clamping system after every unblocking. Protect the clamping system against oxidation. Use the special spray. The spray can also be used to protect the springs against oxidation.

## 6 MAINTENANCE



### Warning!

Always stop the engine and take the plug out of the wall socket before serving or repairing the machine.

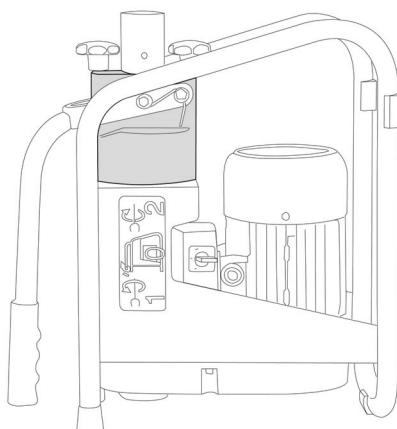
#### 6.1 General

The machine is maintenance free except the clamping system.

Use only original spare parts.

#### 6.2 Cleaning the clamping system

The clamping system is outside the machine. By loosening the two star knobs, you can dismantle and clean the clamping system.



1. Position the machine . The bow must be fully to the back.
2. Dismantle the clamping system. You can do this by loosening the two star knobs.
3. Lift the clamping system.
4. Now you can easily remove the clamps and clean it.
5. Check the clamps for damage.
6. Mount everything in opposite order.

#### 6.3 Lubrication

Grease the pressure cone regular (*see Chapter 8.1 Exploded view. page: 26*). Use good quality multipurpose grease.

#### 6.4 Security guide hose with adapter

The security guide hose takes care that the spring can not move freely. Keep the hose clean at the inside. This prevents extra rust on the spring.

Keep the machine clean, it will extend the life of the machine.

#### 6.5 Extensive periodical maintenance

Have the machine checked and maintained from time to time by the technical service of your dealer. In this way, long life and quality will be guaranteed

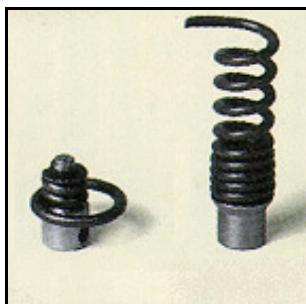
## **6.6 Maintenance schedule**

<b>Description</b>	<b>Interval</b>
Cleaning the clamping system	: Every time before using the machine and by strong pollution.
Checking clamps	: Once a month. Change by wastage.
Cleaning the body of the machine	: Weekly or by strong pollution.
Lubrication moving parts	: Every 50 hours or at least once every 6 months.

**7.1 Auxiliaries that 1. can be coupled:**

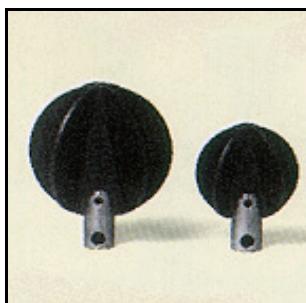
Retrieving hook:

To remove obstacles from pipes. For example: cloth, rags, napkins, sheets, etc.

**2.**

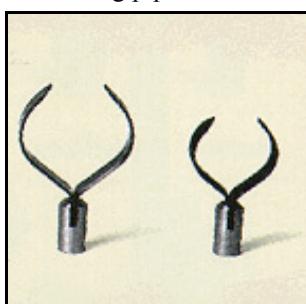
4-blade drill and 6-blade drill:

To mill pipes that are clogged with frying fat.

**3.**

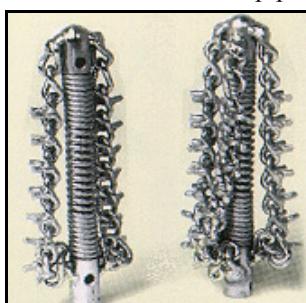
Cutting knife:

To mill big pipes. The knife diameter can be chosen for the right kind of sewer.

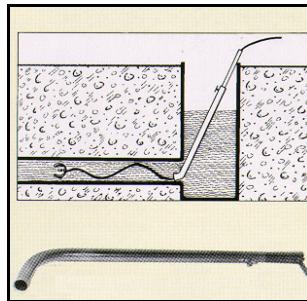
**4.**

Chain head:

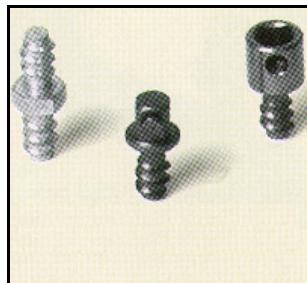
To clean steel and iron pipes.



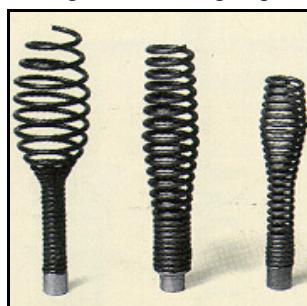
5. Inlet guide tube:  
To guide the spring to difficult places.



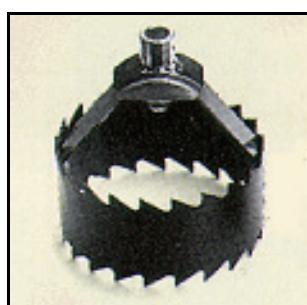
6. Reparation and quick couplings:  
To connect springs or to repair broken springs.



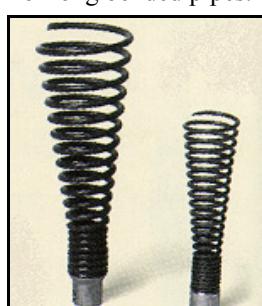
7. Drilling head:  
For light unblocking in polluted pipes.



8. Root cutter:  
To saw tree roots.



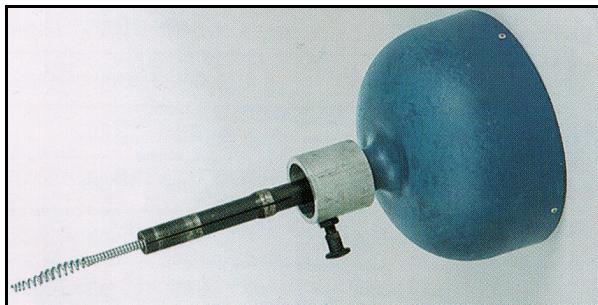
9. Funnel drill:  
For long bended pipes.



- 10.** Pointed head:  
For pipes cocked with lime or uric stones.



- 11.** Adaptor drum:  
The 8 mm and 10 mm springs are working in the Victor by means of a adaptor drum.  
With these springs you can unclog small pipes.

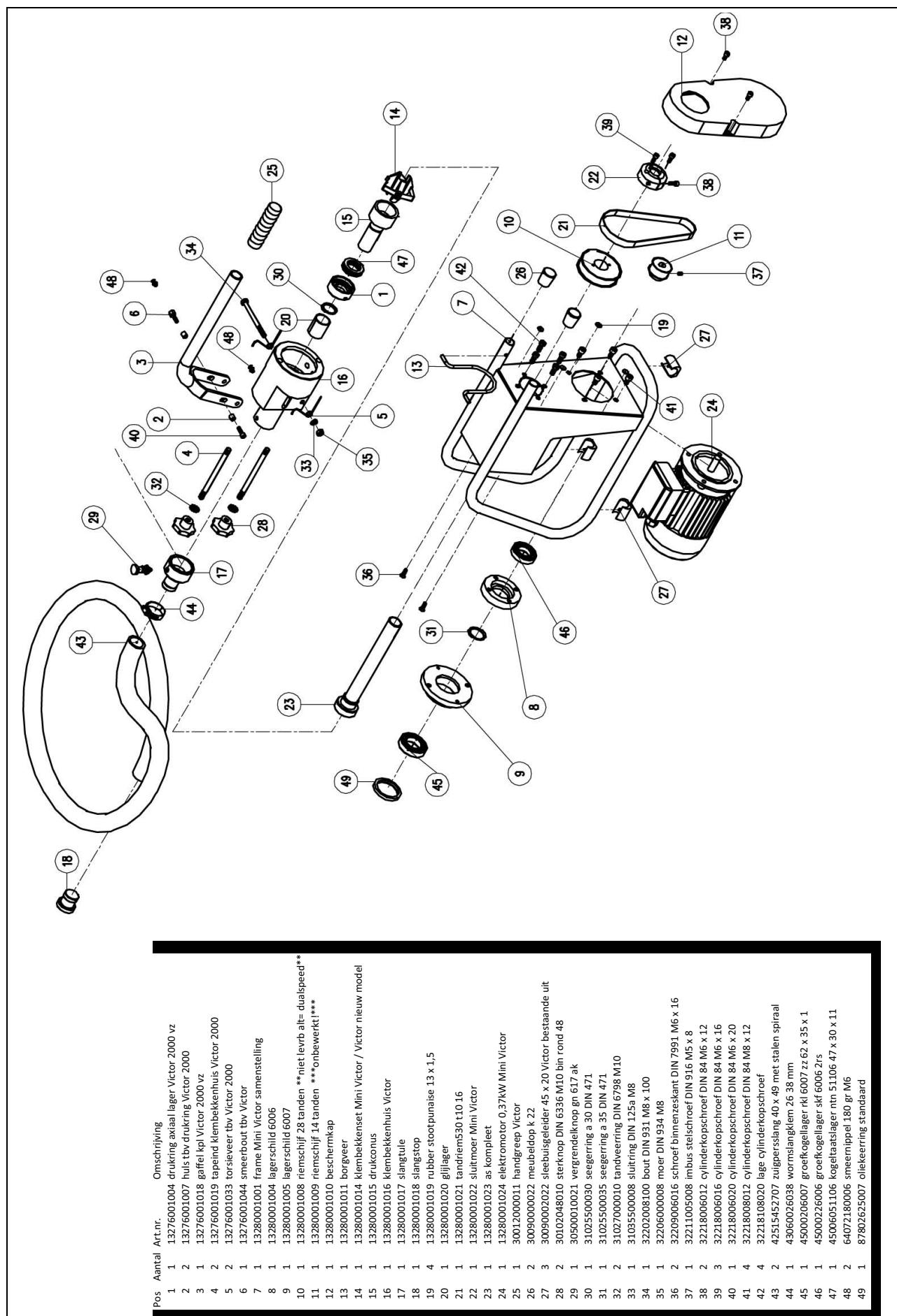


- 12.** Assembling tools:  
To mount and dismantle spring couplings and auxiliaries.



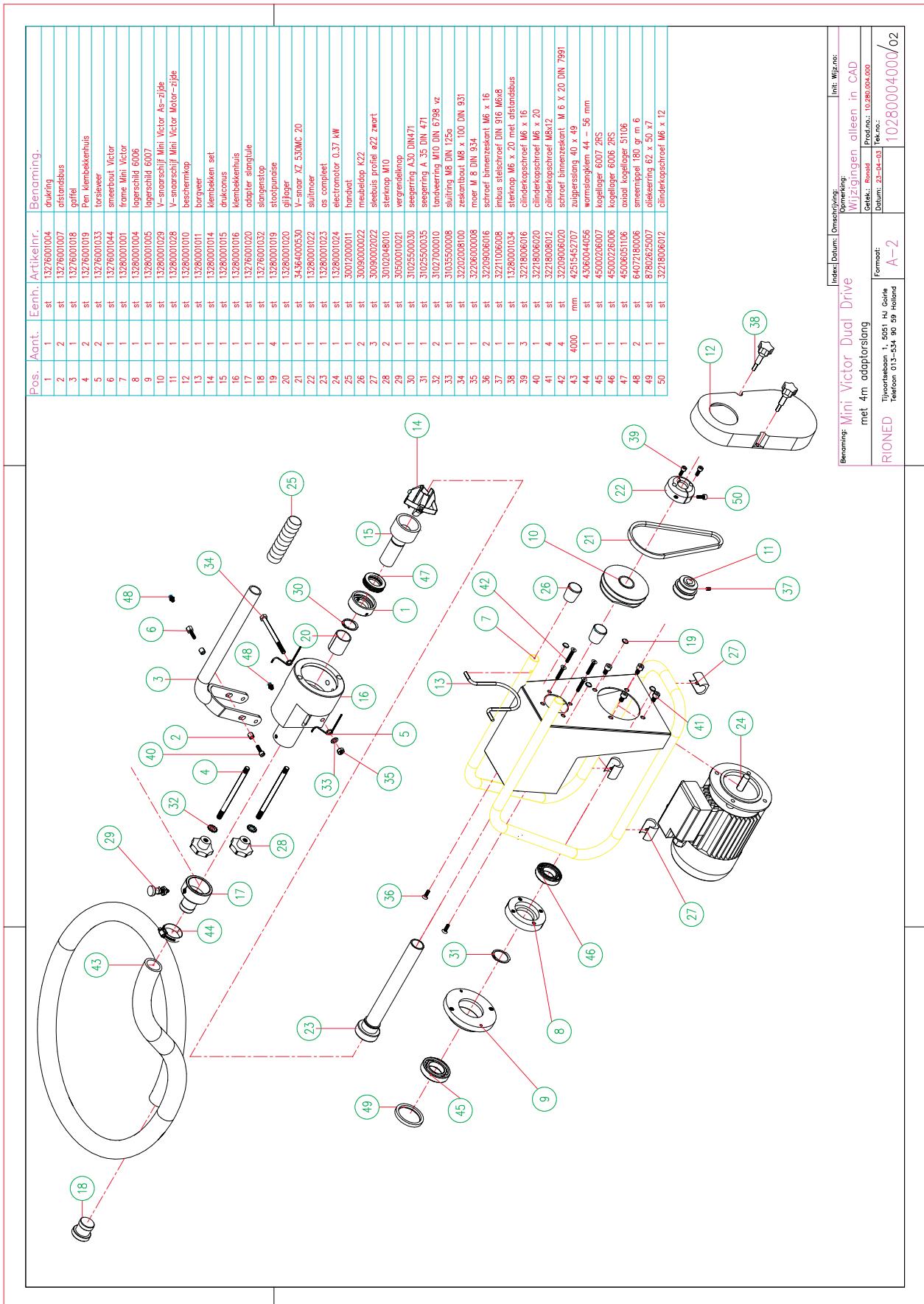
**8      EXPLODED VIEWS**

## 8.1 Mini Victor

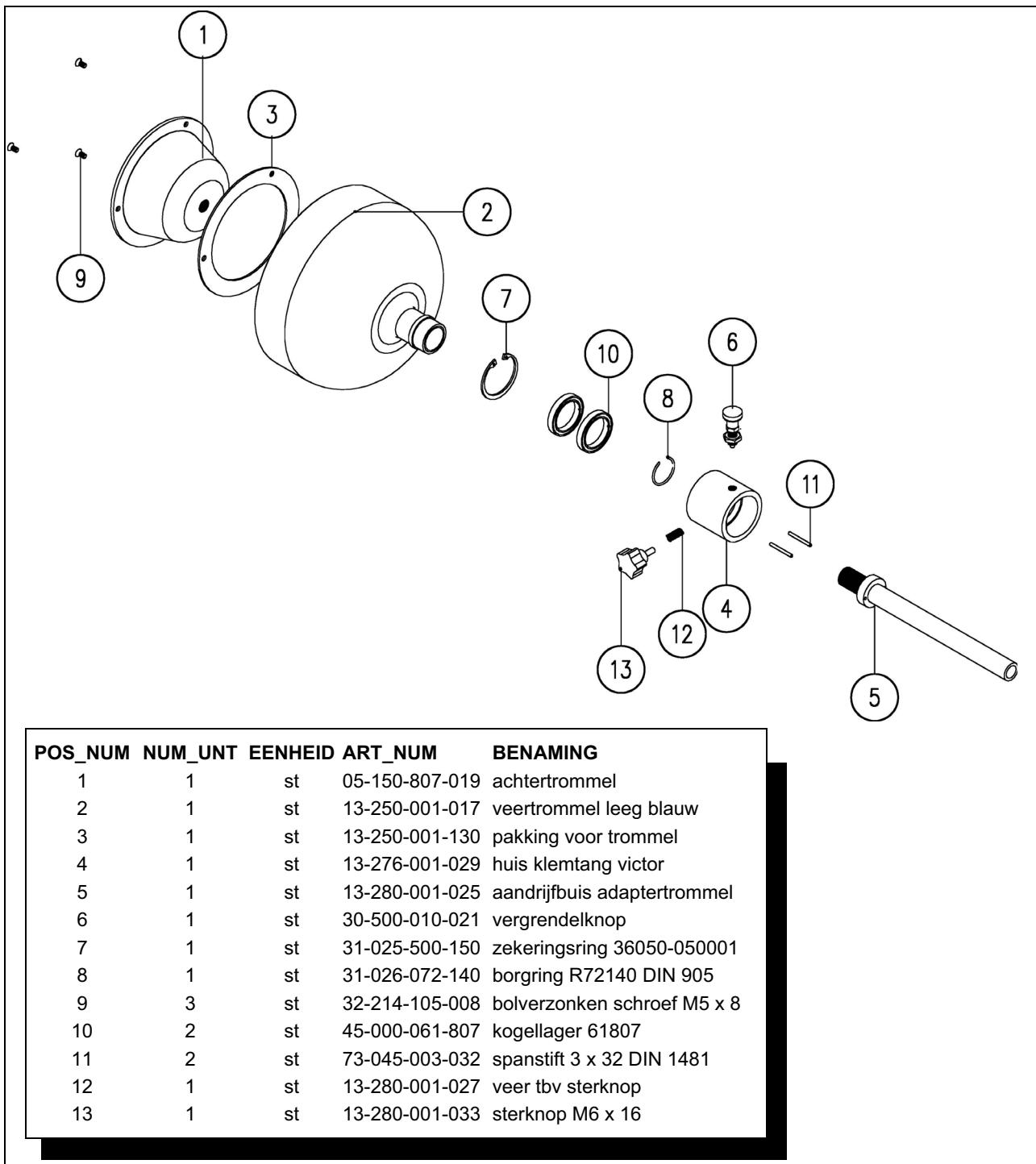


Pos	Aantal	Art.nr.	Omschrijving
1	1	13276001004	drukschijf axial lager Victor 2000 vz
2	2	13276001007	huls tbv drukring Victor 2000
3	1	13276001018	gaffel kpl Victor 2000 vz
4	2	13276001019	tapend klembekkenhus Victor 2000
5	2	13276001033	torseveer tbv Victor 2000
6	1	13276001044	smeerbout tbv Victor
7	1	13280001001	frame Mini Victor samenstelling
8	1	13280001004	lagerschild 6006
9	1	13280001005	lagerschild 6007
10	1	13280001008	riemschijf 28 tanden ***niet leverd alt=dualspeed**
11	1	13280001009	riemschijf 14 tanden ***onbewerkbaar***
12	1	13280001010	beschermkap
13	1	13280001011	borgveer
14	1	13280001014	klembekkenset Mini Victor / Victor nieuw model
15	1	13280001015	drukconus
16	1	13280001016	klembekkenhus Victor
17	1	13280001017	siangtule
18	1	13280001018	slangstop
19	1	13280001019	rubber stooppannaise 13 x 1,5
20	1	13280001020	gljager
21	1	13280001021	tandriem530 t10 16
22	1	13280001022	sluitmoer Mini Victor
23	1	13280001023	as kompleet
24	1	13280001024	elektromotor 0,37kW Mini Victor
25	1	30012000011	handgreep Victor
26	2	30090000022	meubelbedop p 2,2
27	3	30090000222	steekbuisgeleider 15 x 20 Victor bestaande uit
28	2	30102048010	stekknop DIN 6336 M10 bin rond 48
29	1	30500010021	vergrendelkopl B 61,7 ak
30	1	31025000030	seegerring a 30 DIN 471
31	1	31025500035	seegerring a 35 DIN 471
32	2	31027000010	tandveering DIN 6798 M10
33	1	31035500008	sluitring DIN 125a M8
34	1	32202008100	bout DIN 931 M8 x 100
35	1	32206000008	moer DIN 934 M8
36	2	32209000016	schroef binnenzeskant DIN 7991 M6 x 16
37	1	32211005008	imbus steelschroef DIN 916 M5 x 8
38	2	32218006012	cylinderkopschroef DIN 84 M6 x 12
39	3	32218006016	cylinderkopschroef DIN 84 M6 x 16
40	1	32218006020	cylinderkopschroef DIN 84 M6 x 20
41	4	32218008012	cylinderkopschroef DIN 84 M8 x 12
42	4	32218108020	lage cylinderkopschroef
43	2	42515452707	zuigpersleng 40 x 49 met staal spiral
44	1	43060026038	wormslangklem 26 - 38 mm
45	1	45000206007	grootfogelager rkl 6007 zz 62 x 35 x 1
46	1	45000226006	grootfogelager skf 6006 2rs
47	1	45006051106	kogelradslag en mnt 51106 47 x 30 x 11
48	2	64072180006	smeermippel 180 gr M6
49	1	87802625007	oliekeerring standaard

## 8.2 Mini Victor with Dual Drive



### 8.3 Adaptor drum



## 9 APPENDIX

**9.1 EC declaration** RIOR B.V. / RIONED  
**Of Conformity For** Centaurusweg 45, Tilburg, The Netherlands,  
**Machinery**

Herewith declares that:

**Spring cleaning machine Mini Victor ,**

- is in compliance with the Machinery Directive (2006/42/EC);
- is in conformity with the provisions of the following other EEC directives:  
2004/108/EC, 2006/95/EC
- the following harmonized standards have been applied:

NEN-EN-ISO 12100-1, NEN-EN-ISO 12100-2, NEN-EN-ISO 13850,  
NEN-EN-ISO 13857, NEN-EN-349, EN 61029-1 and EN 60204-1

Tilburg, The Netherlands, Tuesday 3 April 2012

A handwritten signature in black ink, appearing to read "J. Cetaa". The signature is fluid and cursive, with a horizontal line underneath it.

## **9.2 Sales Managers**

EXPORT

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Fax: +31 13-547 91 04

REPAIR

THE NETHERLANDS

Rioned  
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### 9.3 Safety instructions

**Warning:** When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following. Read all these instructions before attempting to operate this product and safe these instructions.

For safe operation:

1. **Keep working area clean.**  
Cluttered areas and benches invite injuries.
2. **Consider working area environment.**  
Don't expose electric tools to rain. Don't use electric tools in damp or wet locations. Keep working areas well lit. Do not use tool in presence of flammable liquids or gases.
3. **Guard against electric shock.**  
Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.
4. **Keep children and visitors away.**  
Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
5. **Store idle tools.**  
When not in use, tools should be stored in dry, and high or locked place - out of reach of children.
6. **Don't force tool.**  
It will do the job better and safer at the rate for which it was intended.
7. **Use right tool.**  
Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended - for example - don't use circular saw for cutting tree limbs or logs.
8. **Dress properly.**  
Do not wear loose clothing or jewellery. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
9. **Use safety glasses.**  
Also use face or dust mask if cutting operation is dusty.
10. **Don't abuse cable.**  
Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
11. **Secure work.**  
Use clamps or a vice to hold work. It's safer than using your hand and it frees both hands to operate tool.
12. **Don't overreach.**  
Keep proper footing and balance at all times.
13. **Maintain tools with care.**  
Keep tools sharp ~ clean for better and safer performance. Follow instructions for lubricating and -changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
14. **Disconnect tools.**  
When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
15. **Remove adjusting keys and wrenches.**  
Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
16. **Avoid unintentional starting.**  
Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
17. **Outdoor use extension cords.**  
When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
18. **Stay alert.**  
Watch what you are doing. Use common sense. Do not operate tool when you are tired.

- 19. Check damaged parts.**  
Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service centre unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service centre. Do not use tool if cannot be turned on and off by the switch.
- 20. Warning.**  
The use of any other accessory or attachment other than recommended in this operating instruction or the catalogue may present a risk of personal injury and could invalidate any guarantee.
- 21. Tool repairing by expert only.**  
This electric tool is in accordance with the relevant safety rules. Repairing of electric tools may be carried out only by experts, otherwise it may cause considerable danger for the user.

# 10 INDEX

## Numerics

- 4-blade drill ..... 21
- 6-blade drill ..... 21

## A

- accessories ..... 10
- adaptor drum ..... 23
- adaptor drum ..... 17, 23
- assembling tools ..... 23

## C

- chain head ..... 21
- clamping system ... 7, 15, 17, 18, 19
- clamps ..... 19
- control lever ..... 15
- control lever ..... 7, 15, 18
- copyright ..... 2
- couplings ..... 22
- cutting knife ..... 21

## D

- drilling head ..... 22

## E

- emergency stop ..... 9
- exposure ..... 10

## F

- failure ..... 10

- frying fat ..... 21
- funnel drill ..... 22

## G

- general conditions of delivery ..... 10
- general security signs ..... 9
- gloves ..... 9
- grease ..... 19

## I

- injuries ..... 10
- inlet guide tube ..... 22
- iron pipes ..... 21

## L

- looking glasses ..... 9

## M

- main axle ..... 16
- main parts ..... 13
- main shaft ..... 7
- mechanical failures ..... 10

## O

- original spare parts ..... 10
- oxidation ..... 18

## P

- plug ..... 10, 15
- pointed head ..... 23
- press button "black" ..... 16
- press button "green" ..... 16
- press button "red" ..... 16
- pressure cone ..... 19

- protection facilities ..... 10
- protection looking glasses ..... 9

## Q

- qualifications ..... 10

## R

- responsible ..... 9
- retrieving hook ..... 21
- rioned ..... 2, 10, 19, 29
- root cutter ..... 22
- rust ..... 19

## S

- sales managers ..... 30
- security covers ..... 9
- security guide hose ... 15, 17, 18, 19
- sewer ..... 17, 18
- slip ..... 18
- spare parts ..... 19
- spray ..... 18
- spring ..... 17
- star ..... 15
- star knob ..... 19
- start the engine ..... 18
- start the machine ..... 16

## T

- telephone ..... 10
- the machine is built by ..... 7

## W

- wall socket ..... 9, 10, 15
- warning ..... 19
- warranty ..... 10