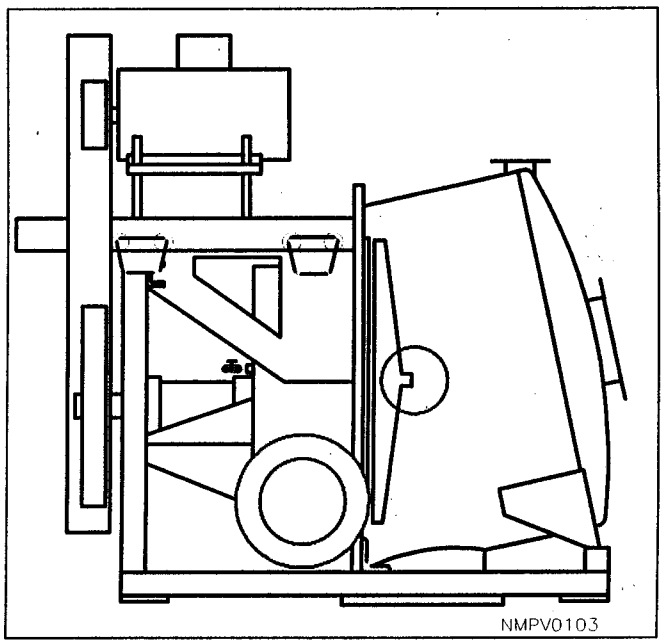


DUMPING POIRE

NMPV01A REV.2

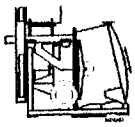
KADANT LAMORT
39, rue de la Fontaine Ludot - B.P. 46 - 51
tel: +33(0)3 26 74 80 80 fax: +33(0)

MECHANICAL INSTRUCTIONS

DUMPING POIRE 1/1

Order No. 0203175

CONTENTS.



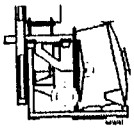
WARNING

Writing principles.

- Generally speaking, this document has been drawn up in the terms provided for in Directive 89/392/EEC.
- It contains information relative to the installation, mounting, handling, adjustments and maintenance of the equipment concerned, accompanied by the necessary information in terms of work safety.
- These instructions are therefore to be respected in all operating phases of the apparatus.
- As far as possible, maximum data is delivered through sketches or diagrams.
- Any reproduction of any part of this manual is forbidden, under any form whatever, without the express consent of KADANT LAMORT.
- This manual may be modified without prior notice.
- Particular attention was paid to the accuracy of the content. Should any error be detected however, KADANT LAMORT would appreciate to know.

Conception and operating conditions of the equipement.

- The equipment has been designed and manufactured following the professional rules and mechanical and hydraulic dimensioning methods used for this type of construction. It meets the main requirements of Directive 89/392/CEE, in terms of safety, where applicable.



- The equipment has been designed to be reliable under conditions of use conforming with the labour code, and when it is installed and operated as expected by KADANT LAMORT.

- The terms "conditions of use" mean here the conditions prevailing not only during standard operating phases, but also during mounting, dismantling, handling, maintenance, etc...

- Whatever the operating phases, personnel qualification and training must be appropriate.

Transmission obligation

- KADANT LAMORT has mailed the required number of copies of the present instructions to the technical and/or sales representatives known at customer's.

- Furthermore, a plastic cover has been fixed on the equipment, containing a copy for the Servicing/Maintenance department.

- It is for the customer to make sure that the instructions are delivered to the persons involved in his factory. On no account can KADANT LAMORT be held responsible of the absence of these documents on the servicing site and/or in due time.

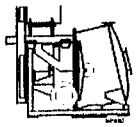
- The instructions must be read through and applied by every person liable to work on or operate the equipment.

- In case of litigation, when sending documents via Internet or Diskette, only the hard copy sent by post will be binding.

Translation

- Customers typically receive manuals in one of the two languages preferentially used at KADANT LAMORT, either French or English.

- However, manuals are also available in German and Spanish.



- In all instance, where the language of the operator differs from one of the above languages and if Directive 89/392/EC is applicable (equipment and territory), the manual translated into the language of the operator must be available at the workplace. Barring specific preliminary and contractual agreement, this translation is at the expense of customers as they import equipment into the territory under consideration.

- In all instances where the interpretation is subject to doubt, it is the version drafted in one of the two languages preferentially used at KADANT LAMORT which is binding.

- These remarks fully apply to possible Declarations of Conformity or Integration.

Various information

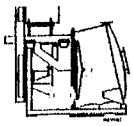
- Our customers can contact us for information through our subsidiaries, agents or sales engineers.

- Technical information can be obtained from our BE/RECH/SAV department (Design, spare parts, after-sales) and more specifically:

- Design office : technical data, numerical values, particulars regarding drawings, interpretation of instructions, etc...

- Spare parts : offers and orders of spare parts.

- After-sales : trouble-shooting, servicing, repair....



PICTOGRAMS USED

EYE

Examine, check.

WARNING sign

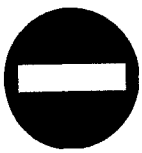
Procedures showing a risk (during installation, handling or modification)

HAND

General remarks.

NO ENTRY sign

procedures or actions that are strictly PROHIBITED.



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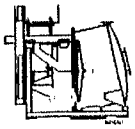
1. INSTALLATION SITE PREPARATION AND EQUIPMENT ACCEPTANCE



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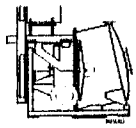


1.1. TRANSPORT

Transport conditions are specified in the sales contract.

During transport, the safety of the persons and the protection of the equipment shall be ensured (against shocks, bad weather, etc ...).

On receipt, the equipment must be inspected. The parcels contained in the seaworthy box should be stored in a suitable place immediately, after opening this box. The warranted protection of this seaworthy packing is no longer valid once this box is open. Any missing part or damage caused during transport must be immediately reported in writing to KADANT LAMORT and reservations should be notified on the delivery slip of the forwader.. Check the tools have been supplied when specified

1.2. HANDLING

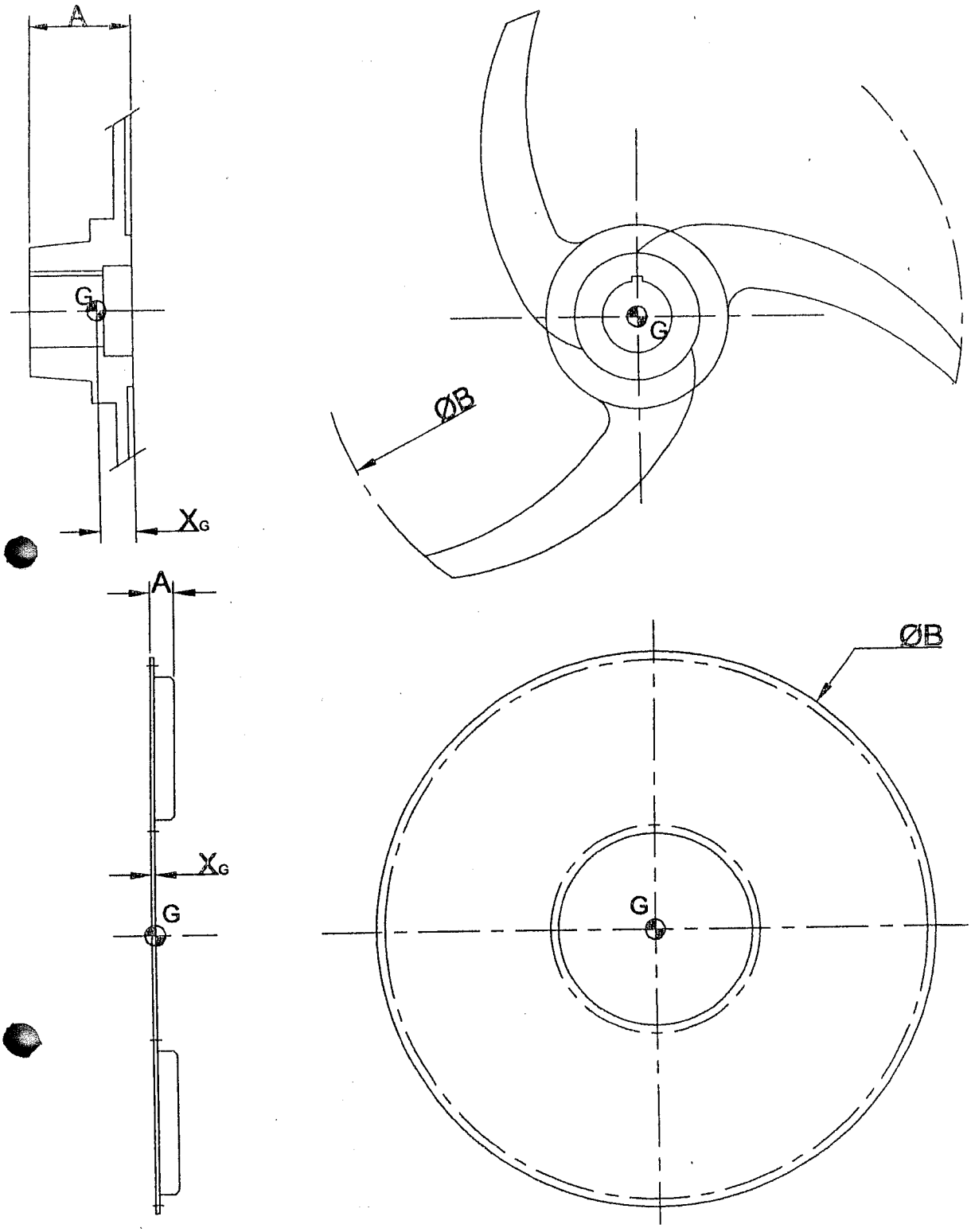
The equipment must be unloaded and brought over to the installation site or a storage site at least.

All handling/lifting operations of complete or partial equipment must comply with the safety conditions required, taking into consideration the mass and gravity centre of the handled elements and using the most appropriate lifting means and the lifting points provided for this on the machines.
Any load over 20 kg should be lifted or handled by 2 persons. (By two persons, not exceeding though 45 kg).

In any event, it is forbidden to stand under the loads and to use the KADANT LAMORT may have supplied for any other purpose than tat for which they were specially designed.

A lifting device be advisable near or above the unit for easier handling of heary parts.

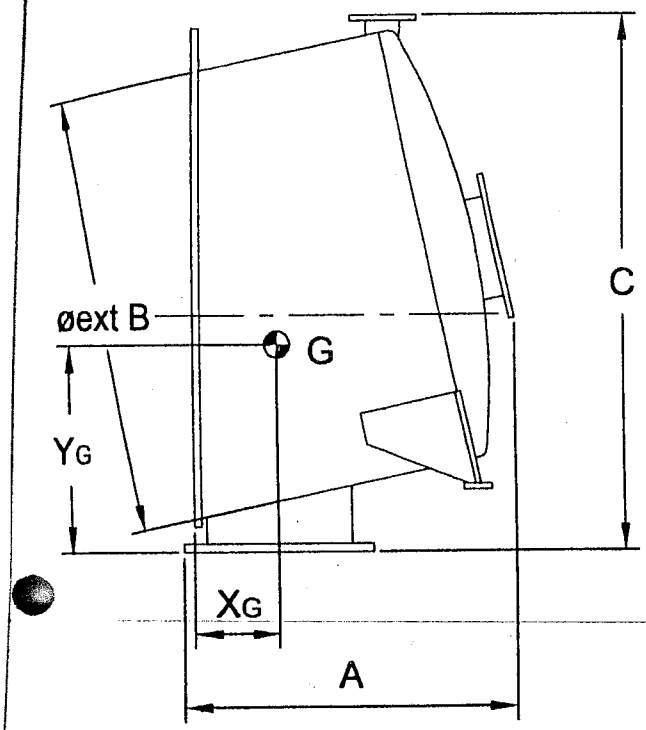
To handle the vat alone, use the rings welded onto the vat. To handle the assembly and the various components, refer to the handling drawing.

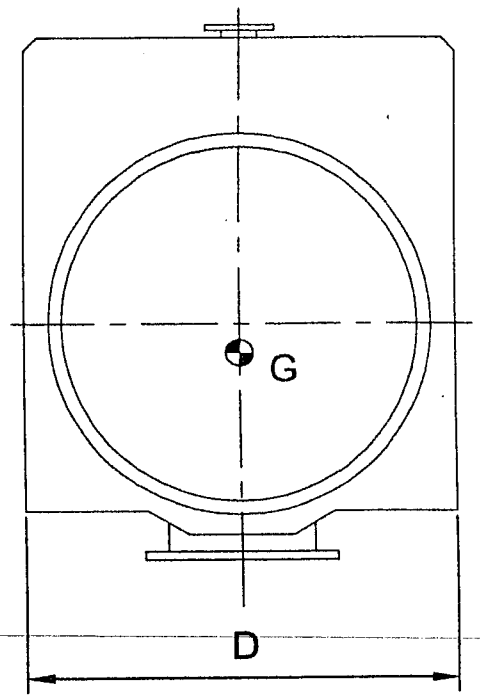


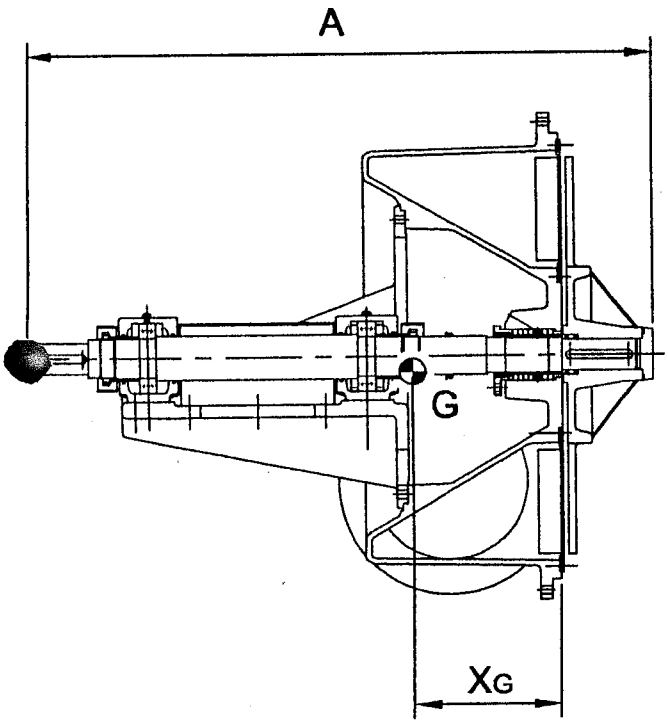
KADANT LAMORT

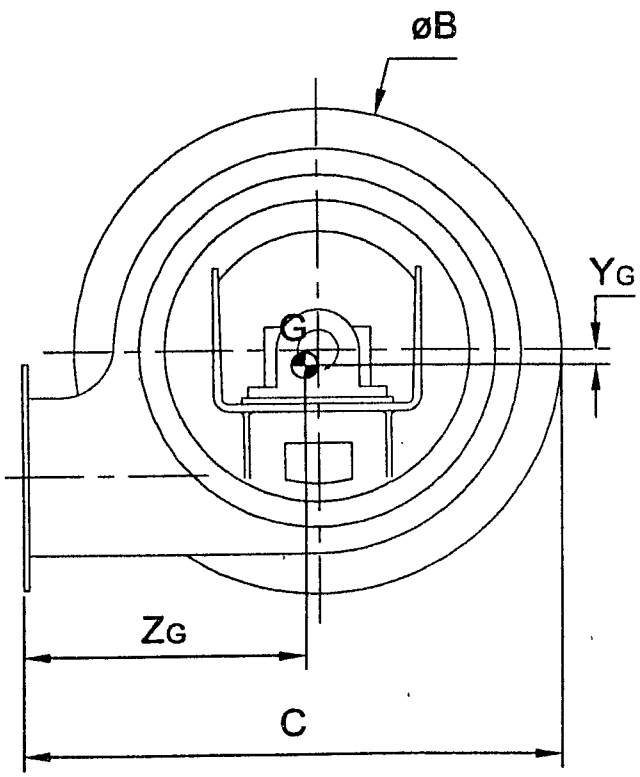
POIRE DE VIDANGE 1 - 2 - 3
DUMPING POIRE 1 - 2 - 3
ENTLEERUNGSBIRNE 1 - 2 - 3
PERA DI SCARICO 1 - 2 - 3

Ech : .	Date : 10/10/1995			
Vérifié : .	Dessiné : DB	Référence article :	Plan N° : NMPV0126	Indice A
Modèle : .	Masse : .			









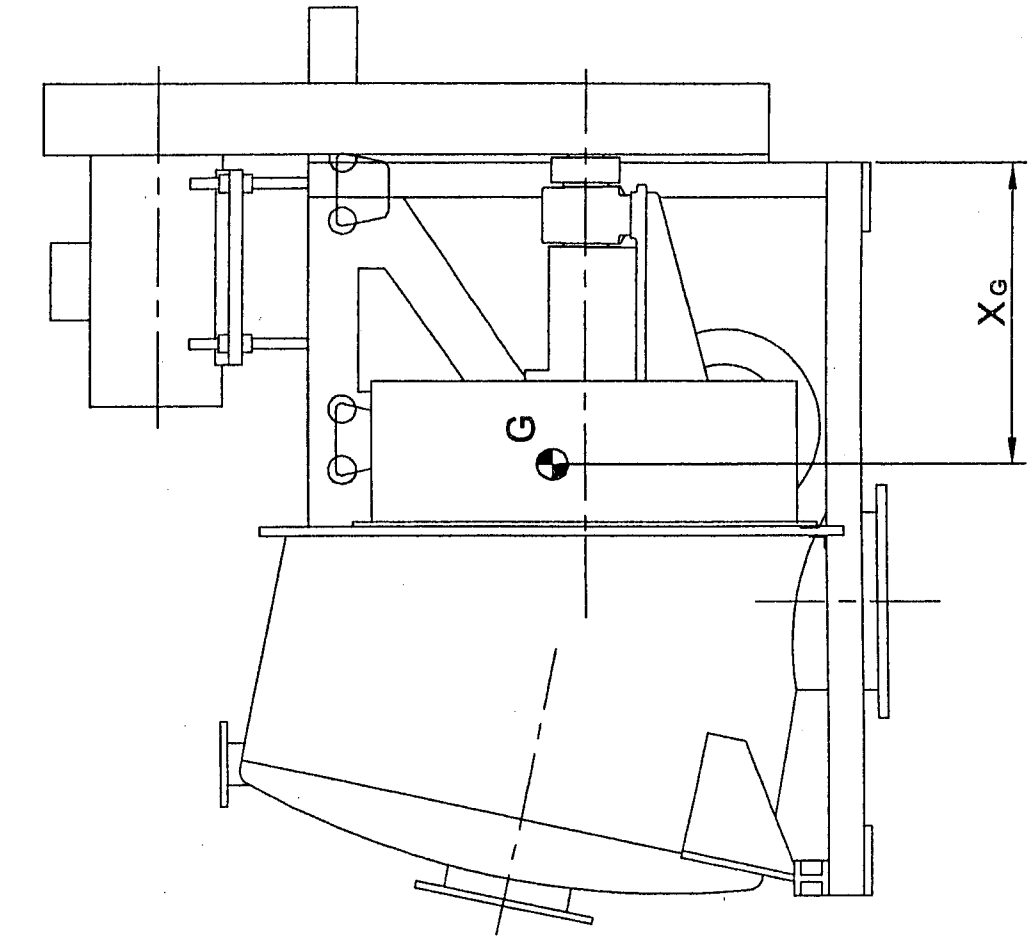
KADANT LAMORT

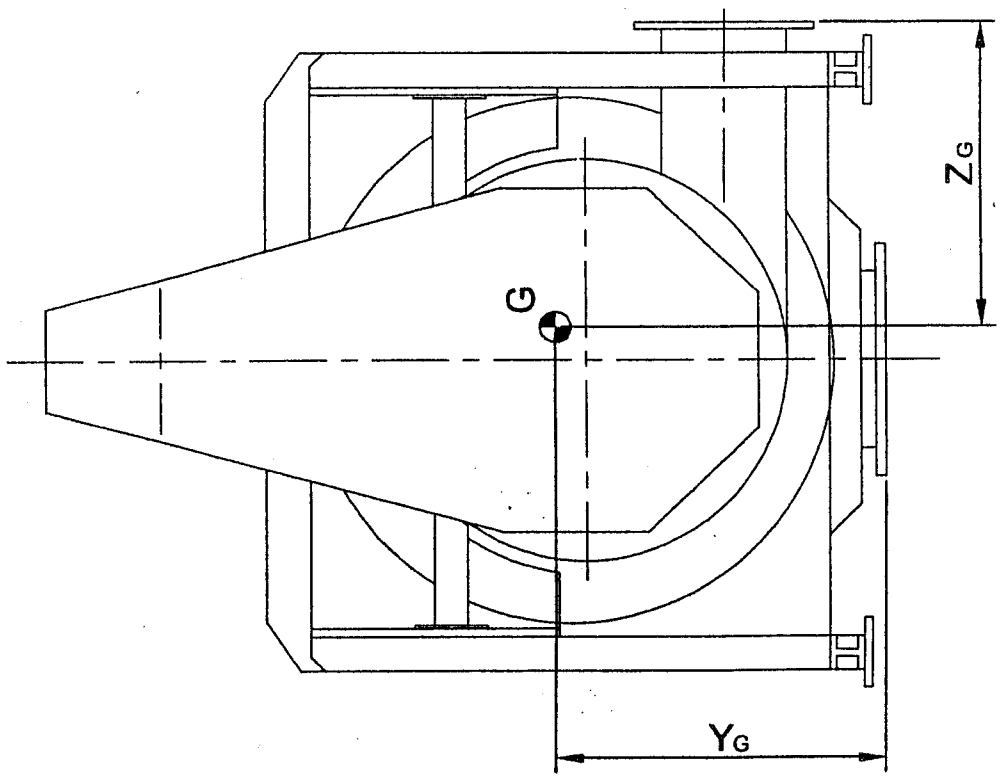
DB | Date: 10/10/95

POIRE DE VIDANGE
DUMPING POIRE
ENTLEERUNGSBIRNE
PERA DI SCARICO

PV

NMPV0128 | A





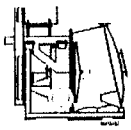
KADANT LAMORT

POIRE DE VIDANGE
DUMPING POIRE
ENTLEERUNGSBIRNE
PERA DI SCARICO

PV

NMPV0129 | A

DB | Date: 10/10/95



1.3. STORAGE

After long-term storage, before installation check the greasing of the bearings of the mechanical assembly, the seals and the packings.

Store in a dry and dustproff shelter, ventilated and protected from atmospheric variations.

1.4. INSTALLATION SITE PREPARATION

1.4.1. Permissible environmental conditions

Our equipment is designed for operating in an industrial building whose ambient conditions (temperature, hygrometry ...) will not forbid the presence of a staff. Any other conditions, more particularly outside, will need previous agreement by KADANT LAMORT.

1.4.2. Space requirement and orientation

See space requirement and orientation sheet.

The dimensions exclusively refer to the equipment alone, not considering peripheral units, if any, or installation site restrictions.

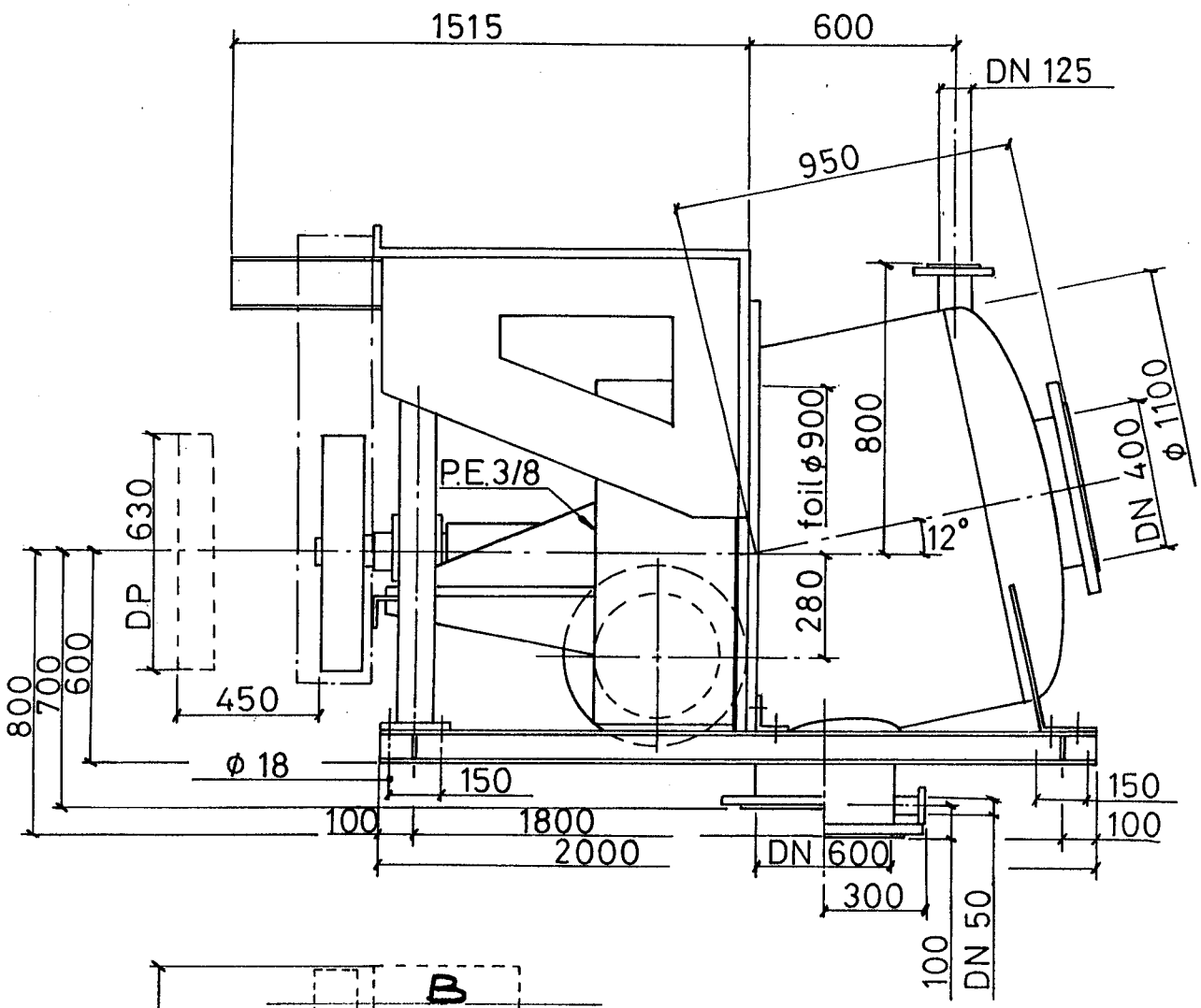
The distance given to separate the mechanical assembly from the vat is necessary to allow screen plate and rotor maintenance.

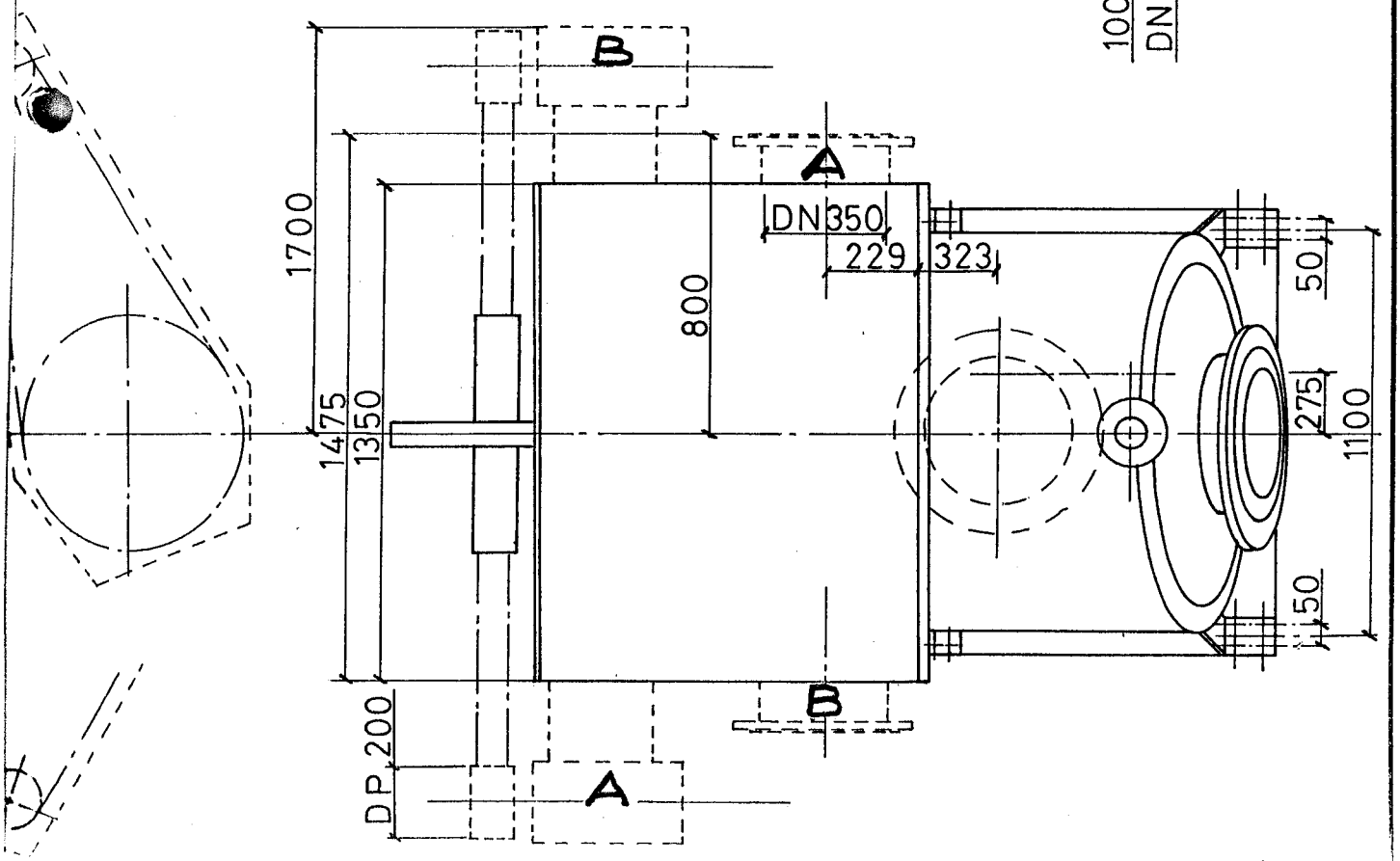
C.10762

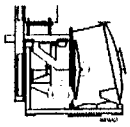
POIRE DE VIDANGE TYPE 1 - REFUS DN 600 - Moteur latéral

DISCHARGE POIRE TYPE 1 - REJECTS ND 600 - Side motor

ENTLEERUNGSBIRNE TYP 1 - REJECTE NW 600 -Seitenmotor







1.4.3. Foundations

See foundations drawing

The document delivered by KADANT LAMORT is a foundation guide drawing only, specifying:

- **geometrical position of anchor boxes and diameters of anchor bolts,**
- **static and dynamic loads exerting on the various foundation blocks right under the metal baseplate of the supported part.**
- **The foundation drawing only refers to the machine. It does not include the space required for the peripherals and connections if any (pipes, cables, wires....)**

Sufficient level is required to access the rejects.

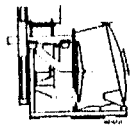
Studies of foundation details, formwork and armouring drawings must be produced by a civil engineering office (by customer).

Concrete quality should be 25MPa at least unless otherwise stated on the foundation drawing.

Correct set-up will depend on the accuracy of foundation works.

2. SAFETY INSTUCTIONS.

(Extracted from the VDMA)



1.0 Fundamental safety instructions

1.1 Warnings and symbols

The following signs and designations are used in the manual to designate instructions of particular importance.

Important (refers to special information on how to use the machine/plant most efficiently)

Attention (refers to special information and/or orders and prohibitions directed towards preventing damage)

Danger (refers to orders and prohibitions designed prevent injury or extensive damage)

1.2 Basic operation and designated use of the machine/plant

1.2.1

The machine/plant has been built in accordance with state-of-the-art standards and the recognized safety rules. Nevertheless, its use may constitute a risk to life and limb of the user or of third parties, or cause damage to the machine and to other material property.

1.2.2

The machine/plant must only be used in technically perfect condition in accordance with its designated use and the instructions set out in the operating manual, and only by safety-conscious persons who are fully aware of the risks involved in operating the machine/plant. Any functional disorders, especially those affecting the safety of the machine/plant, should therefore be rectified immediately.

1.2.3

The machine/plant is designed exclusively for _____. Using the machine/plant for purposes other than those mentioned above (such as for _____) is considered contrary to its designated use. The manufacturer/supplier cannot be held liable for any damage resulting from such use. The risk of such misuse lies entirely with the user.

Operating the machine within the limits of its designated use also involves observing the instructions set out in the operating manual and complying with the inspection and maintenance directives.

1.3 Organizational measures

1.3.1

The operating instructions must always be at hand at the place of use of the machine/plant, e.g. by stowing them in the tool compartment or tool-box provided for such purpose.

1.3.2

In addition to the operating instructions, observe and instruct the user in all other generally applicable legal and other mandatory regulations relevant to accident prevention and environmental protection.

These compulsory regulations may also deal with the handling of hazardous substances, issuing and/or wearing of personal protective equipment, or traffic regulations.

1.3.3

The operating instructions must be supplemented by instructions covering the duties involved in supervising and notifying special organizational features, such as job organization, working sequences or the personnel entrusted with the work.

1.3.4

Personnel entrusted with work on the machine must have read the operating instructions and in particular the chapter on safety before beginning work. Reading the instructions after work has begun is too late. This applies especially to persons working only occasionally on the machine, e.g. during setting up or maintenance.

1.3.5

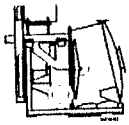
Check – at least from time to time – whether the personnel is carrying out the work in compliance with the operating instructions and paying attention to risks and safety factors.

1.3.6

For reasons of security, long hair must be tied back or otherwise secured, garments must be close-fitting and no jewellery – such as rings – may be worn. Injury may result from being caught up in the machinery or from rings catching on moving parts.

1.3.7

Use protective equipment wherever required by the circumstances or by law.



1.3.8
Observe all safety instructions and warnings ttached to the machine/plant.

1.3.9
See to it that safety instructions and warnings ttached to the machine are always complete and perectly legible.

1.3.10
In the event of safety-relevant modifications or hanges in the behaviour of the machine/plant during peration, stop the machine/plant immediately and eport the malfunction to the competent authority/ erson.

1.3.11
Never make any modifications, additions or conversions which might affect safety without the supplier's approval. This also applies to the installation and adjustment of safety devices and valves as well as to welding work on load-bearing elements.

1.3.12
Spare parts must comply with the technical requirements specified by the manufacturer. Spare parts from original equipment manufacturers can be relied to do so.

1.3.13
Never modify the software of programmable control systems.

1.3.14
Replace hydraulic hoses within stipulated and appropriate intervals even if no safety-relevant defects have been detected.

1.3.15
Adhere to prescribed intervals or those specified in the operating instructions for routine checks and inspections.

1.3.16
For the execution of maintenance work, tools and workshop equipment adapted to the task on hand are absolutely indispensable.

1.3.17
The personnel must be familiar with the location and operation of fire extinguishers.

1.3.18
Observe all fire-warning and fire-fighting procedures.

1.4 Selection and qualification of personnel – Basic responsibilities

1.4.1
Any work on and with the machine/plant must be executed by reliable personnel only. Statutory minimum age limits must be observed.

1.4.2
Employ only trained or instructed staff and set out clearly the individual responsibilities of the personnel for operation, set-up, maintenance and repair.

1.4.3
Make sure that only authorized personnel works on or with the machine.

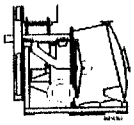
1.4.4
Define the machine operator's responsibilities – also with regard to observing traffic regulations – giving the operator the authority to refuse instructions by third parties that are contrary to safety.

1.4.5
Do not allow persons to be trained or instructed or persons taking part in a general training course to work on or with the machine/plant without being permanently supervised by an experienced person.

1.4.6
Work on the electrical system and equipment of the machine/plant must be carried out only by a skilled electrician or by instructed persons under the supervision and guidance of a skilled electrician and in accordance with electrical engineering rules and regulations.

1.4.7
Work on gas-fuelled equipment (gas consumers) may be carried out by specially trained personnel only.

1.4.8
Work on the hydraulic system must be carried out only by personnel with special knowledge and experience of hydraulic equipment.



1.5 Safety instructions governing specific operational phases

1.5.1
Standard operation

1.5.1.1
Avoid any operational mode that might be prejudicial to safety.

1.5.1.2
Take the necessary precautions to ensure that the machine is used only when in a safe and reliable state.

Operate the machine only if all protective and safety-oriented devices, such as removable safety devices, emergency shut-off equipment, sound-proofing elements and exhausters, are in place and fully functional.

1.5.1.3
Check the machine/plant at least once per working shift for obvious damage and defects. Report any changes (incl. changes in the machine's working behaviour) to the competent organization/person immediately. If necessary, stop the machine immediately and lock it.

1.5.1.4
In the event of malfunctions, stop the machine/plant immediately and lock it. Have any defects rectified immediately.

1.5.1.5
During start-up and shut-down procedures always watch the indicators in accordance with the operating instructions.

1.5.1.6
Before starting up or setting the machine/plant in motion, make sure that nobody is at risk.

1.5.1.7
The selector switch must be set to "Normal" and locked.

1.5.1.8
Never switch off or remove suction and ventilation devices when the machine is in operation.

1.5.2
Special work in conjunction with utilization of the machine/plant and maintenance and repairs during operation; disposal of parts and consumables

1.5.2.1
Observe the adjusting, maintenance and inspection activities and intervals set out in the operating instructions, including information on the replacement of parts and equipment. These activities may be executed by skilled personnel only.

1.5.2.2
Brief operating personnel before beginning special operations and maintenance work, and appoint a person to supervise the activities.

1.5.2.3
In any work concerning the operation, conversion or adjustment of the machine and its safety-oriented devices or any work related to maintenance, inspection and repair, always observe the start-up and shut-down procedures set out in the operating instructions and the information on maintenance work.

1.5.2.4
Ensure that the maintenance area is adequately secured.

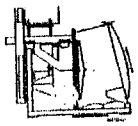
1.5.2.5
If the machine/plant is completely shut down for maintenance and repair work, it must be secured against inadvertent starting by:

- locking the principal control elements and removing the ignition key
  and/or
- attaching a warning sign to the main switch.

1.5.2.6
To avoid the risk of accidents, individual parts and large assemblies being moved for replacement purposes should be carefully attached to lifting tackle and secured. Use only suitable and technically perfect lifting gear and suspension systems with adequate lifting capacity. Never work or stand under suspended loads.

1.5.2.7
The fastening of loads and the instructing of crane operators should be entrusted to experienced persons only. The marshaller giving the instructions must be within sight or sound of the operator.

1.5.2.8
For carrying out overhead assembly work always use specially designed or otherwise safety-oriented ladders and working platforms. Never use machine parts as a climbing aid. Wear a safety harness when carrying out maintenance work at greater heights.



Keep all handles, steps, handrails, platforms, landings and ladders free from dirt, snow and ice.

1.5.2.9

Clean the machine, especially connections and threaded unions, of any traces of oil, fuel or preservatives before carrying out maintenance/repair. Never use aggressive detergents. Use lint-free cleaning rags.

1.5.2.10

Before cleaning the machine with water, steam jet (high-pressure cleaning) or detergents, cover or tape up all openings which – for safety and functional reasons – must be protected against water, steam or detergent penetration. Special care must be taken with electric motors and switchgear cabinets.

1.5.2.11

Ensure during cleaning of the machine that the temperature sensors of the fire-warning and fire-fighting systems do not come into contact with hot cleaning agents as this might activate the fire-fighting system.

1.5.2.12

After cleaning, remove all covers and tapes applied for that purpose.

1.5.2.13

After cleaning, examine all fuel, lubricant and hydraulic fluid lines for leaks, loose connections, chafe marks and damage. Any defects found must be rectified without delay.

1.5.2.14

Always tighten any screwed connections that have been loosened during maintenance and repair.

1.5.2.15

Any safety devices removed for set-up, maintenance or repair purposes must be refitted and checked immediately upon completion of the maintenance and repair work.

1.5.2.16

Ensure that all consumables and replaced parts are disposed of safely and with minimum environmental impact.

1.6 Warning of special dangers

1.6.1

Electric energy

1.6.1.1

Use only original fuses with the specified current rating. Switch off the machine/plant immediately if trouble occurs in the electrical system.

1.6.1.2

Work on the electrical system or equipment may only be carried out by a skilled electrician himself or by specially instructed personnel under the control and supervision of such electrician and in accordance with the applicable electrical engineering rules.

1.6.1.3

If provided for in the regulations, the power supply to parts of machines and plants, on which inspection, maintenance and repair work is to be carried out must be cut off. Before starting any work, check the de-energized parts for the presence of power and ground or short-circuit them in addition to insulating adjacent live parts and elements.

1.6.1.4

The electrical equipment of machines/plants is to be inspected and checked at regular intervals. Defects such as loose connections or scorched cables must be rectified immediately.

1.6.1.5

Necessary work on live parts and elements must be carried out only in the presence of a second person who can cut off the power supply in case of danger by actuating the emergency shut-off or main power switch. Secure the working area with a red-and-white safety chain and a warning sign. Use insulated tools only.

1.6.1.6

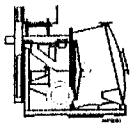
Before starting work on high-voltage assemblies and after cutting out the power supply, the feeder cable must be grounded and components, such as capacitors, short-circuited with a grounding rod.

1.6.2

Gas, dust, steam and smoke

1.6.2.1

Carry out welding, flame-cutting and grinding work on the machine/plant only if this has been expressly authorized, as there may be a risk of explosion and fire.



1.6.2.2

Before carrying out welding, flame-cutting and grinding operations, clean the machine/plant and its surroundings from dust and other inflammable substances and make sure that the premises are adequately ventilated (risk of explosion).

1.6.2.3

Observe any existing national regulations if work is to be carried out in narrow rooms.

1.6.3

Hydraulic and pneumatic equipment

1.6.3.1

Work on hydraulic equipment may be carried out only by persons having special knowledge and experience in hydraulic systems.

1.6.3.2

Check all lines, hoses and screwed connections regularly for leaks and obvious damage. Repair damage immediately. Splashed oil may cause injury and fire.

1.6.3.3

Depressurize all system sections and pressure pipes (hydraulic system, compressed-air system) to be removed in accordance with the specific instructions for the unit concerned before carrying out any repair work.

1.6.3.4

Hydraulic and compressed-air lines must be laid and fitted properly. Ensure that no connections are interchanged. The fittings, lengths and quality of the hoses must comply with the technical requirements.

1.6.4

Noise

1.6.4.1

During operation, all sound baffles must be closed.

1.6.4.2

Always wear the prescribed ear protectors.

1.6.5

Oil, grease and other chemical substances

1.6.5.1

When handling oil, grease and other chemical substances, observe the product-related safety regulations.

1.6.5.2

Be careful when handling hot consumables (risk of burning or scalding).

1.7 Mobile machinery and equipment

(Machinery and equipment used at frequently changing places of operation)

1.7.1

For loading only use lifting gear and tackle of sufficient capacity.

1.7.2

Appoint a competent marshaller to assist in the lifting operations.

1.7.3

Lift machinery and equipment properly with suitable lifting gear and only in accordance with the operating instructions (fixing points for lifting tackle, etc...).

1.7.4

Only use suitable means of transport of adequate carrying capacity.

1.7.5

Fasten the loads safely using the suitable fixing points.

1.7.6

Before or immediately after completion of the loading operations the machine/plant must be secured by means of recommended/supplied devices against unintentional changes of position and a corresponding warning sign attached to the machine/plant.

Before recommissioning the machine/plant these devices must be properly removed.

1.7.7

Carefully refit and fasten all parts to be removed for transport purposes before recommissioning the machine/plant.

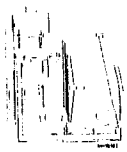
1.7.8

Cut off the external power supply of the machine or plant even if only minor changes of place are envisaged. Properly reconnect the machine to the supply mains before recommissioning.

1.7.9

For recommissioning only proceed in accordance with the operating instructions.

3. DESCRIPTION



CONTENTS.

3.1. TECHNICAL SPECIFICATIONS

Among other elements, the caractéristiques of the following are found on the characteristic sheets:

- the screen plate
- the rotor
- the drive-side shaft end
- the bearings and their lubrication
- the belt drive
- the stuffing box
- the motor

CHARACTERISTICS SHEET

ORDER NUMBER

Your references:

Our références:**0203175 (8903007)**

Machine type — **Dumping poire 1/1 - Orientation : Outlet : right (B)**
Motor : left (B)

Material — Stainless steel **304L** for the wetted parts.

Vat — **Size:1**

Pressure — **Max. Pressure in the PV ≤ 1 bar**

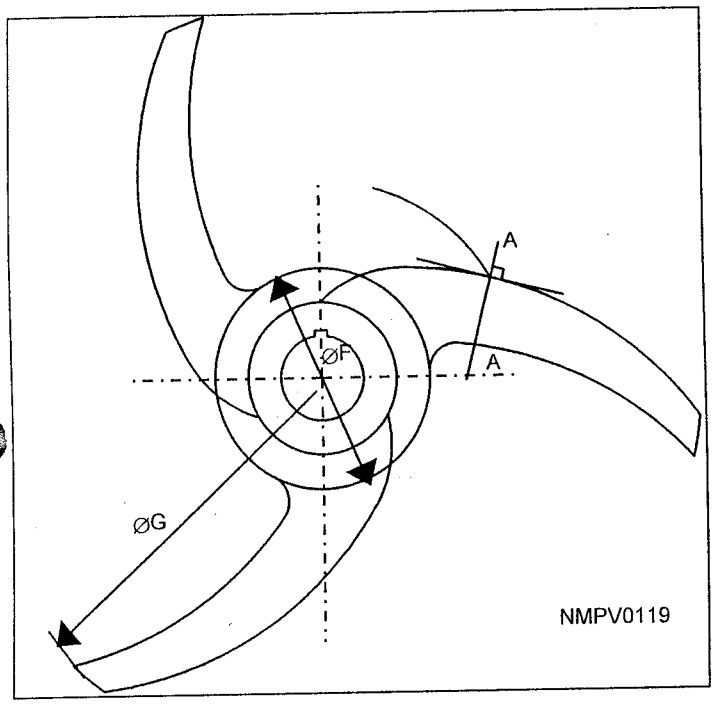
When cleaning, isolating or by-passing the unit, every step must be taken to avoid a rise in temperature and in pressure inside said unit

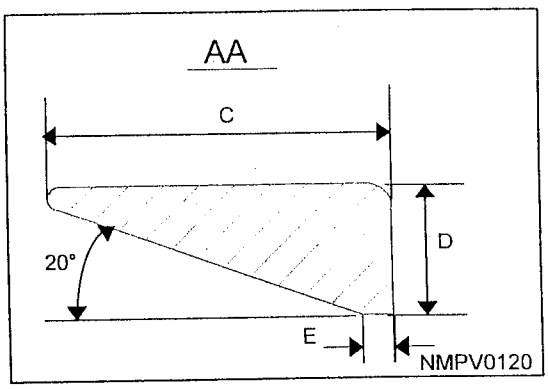
Mechanism — **SIZE:1**

Rotor — **Without** Stellite

Jeu entre grille et rotor : **4 to 6 mm for screen plate without deflectors**

ROTOR WITHOUT STELLITE





C= **90** mm

D= **30** mm

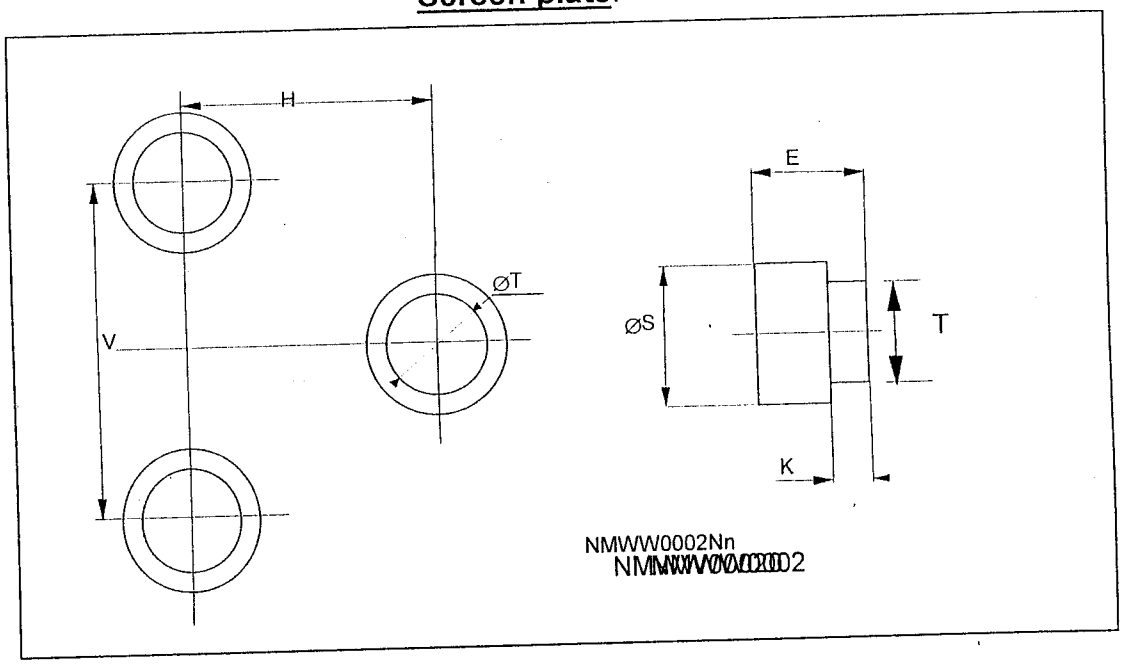
E= **5** mm

ØF= **400** mm

ØG= **890** mm

These dimensions are given for information and may be slightly different, due to the casting. These variations have no influence on the good operation of the unit.

Screen plate.



Without deflectors

Mesh dimensions

H= **8.48** mm

V= **9.8** mm

ØT=**6** mm

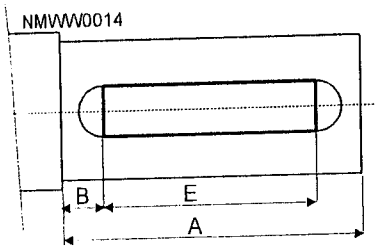
E= **/** mm

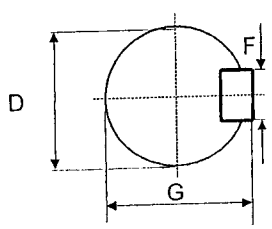
K= **5**

ØS=**/** mm

Open surface = **15.4** dm^2

Shaft end (driven pulley side)





B= **15**

A= **150**

E= **110**

ØD= **70f7**

G=**74,5** $^{0}_{-0,11}$

F= **20** $^{0}_{-0,052}$

Basically, the lubricators are the hydraulic type.
The quantities are given for the bearing without considering the greasing line.

Lubrication of the bearing (machine side):

Grease type	**LGMT2(SKF)**
Grease quantity for the initial fill:	**430** g
Grease quantity to be added when replenishing:	**32** g
Relubrication interval	**3000** h

Lubrication of the bearing (drive side):

Grease type	**LGMT2(SKF)**
Grease quantity for the initial fill:	**430** g
Grease quantity to be added when replenishing:	**32** g
Relubrication interval	**3000** h

The calculation of these values is based on the formulas given by the bearing suppliers. The values are theoretical then. So that, the ambient conditions and the production may require more frequent grease additions (once a month or twice a week).
As a precaution, in all cases, replace the grease totally, every year.

Stuffing box

Water flow rate	**0,3** m^3/h
Pressure	**0,5** bar.over internal pressure.

Information relevant for water lubricated stuffing boxes.
Water ring is not supplied for dry stuffing boxes

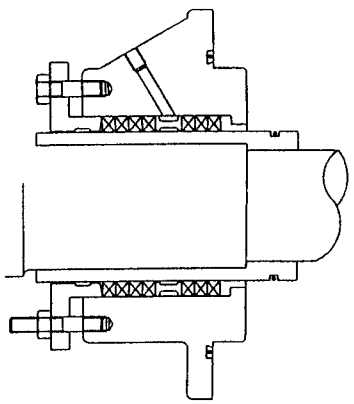
GEOMETRY

Inside of component
Neck ring

2 packing
Lantern ring
4 Packing

Outside of component

NMWW008
Lantern ring between the packings



Belt drive

Length of the belts:	**3870** mm
Type of belts:	**SPB**
Number of belts:	**6**

Diameter of the driven pulley: **630** Type **MGT**
Bushing number **: MGT80** Bore:**70H7**
Weight : **59**kg
Diameter of the driving pulley: **200** Type **MGT**
Bushing number **:MGT 63** Bore:**55H7**
Poids: **10**kg

Inertia of the rotating parts at the motor shaft end

J= **2,51** kgm² (expressed in the I.S.)

Motor :

Power :	**30** kW
Speed :	**1500** tr/min.
Frequency:	**50** Hz

Remark: It is not authorized to install an electric motor whose definition is different from that indicated above, without having obtained previous, written authorization from E & M LAMORT..

Anchor bolts
(Material: Mild steel)

Type: **Hook.** Dimension: **M16x300**

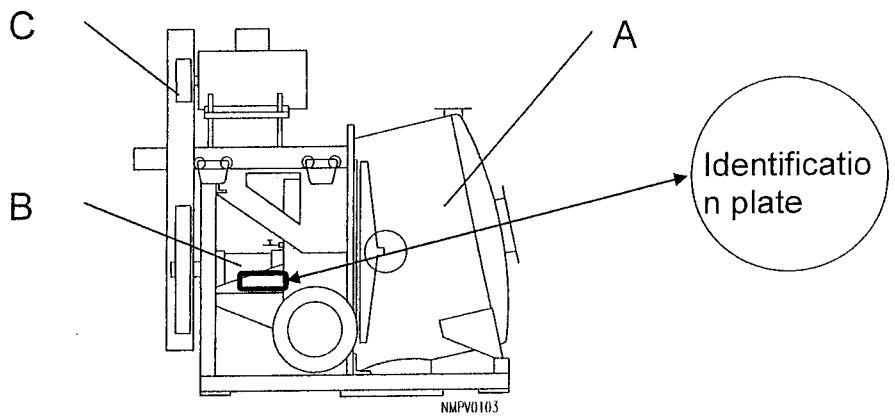
Rejects valve

Valve GIPPONI DN600

Airborne noise (see paragraph 4.1)

A 93 dB(A)
B 91 dB(A)
C 89 dB(A)

Position of identification plate

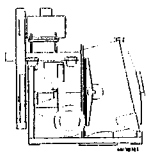


Drawing

Handling:

Rotor- Sceen plate	**NMPV0126A**
Mécanism-Vat	**NMPV0128A**
Machine	**NMPV0129A(I II III)**
Space requirement	**C10762**
Of the assembly and of the spare parts:	**RC10367A**

Appendices Drive Origin: **BROOK HANSEN.** 3 pages.



3.2. DESCRIPTION AND SCOPE OF SUPPLY

The dumping poire is designed to ensure the pulper draining and the separation of the stock from the contaminants.

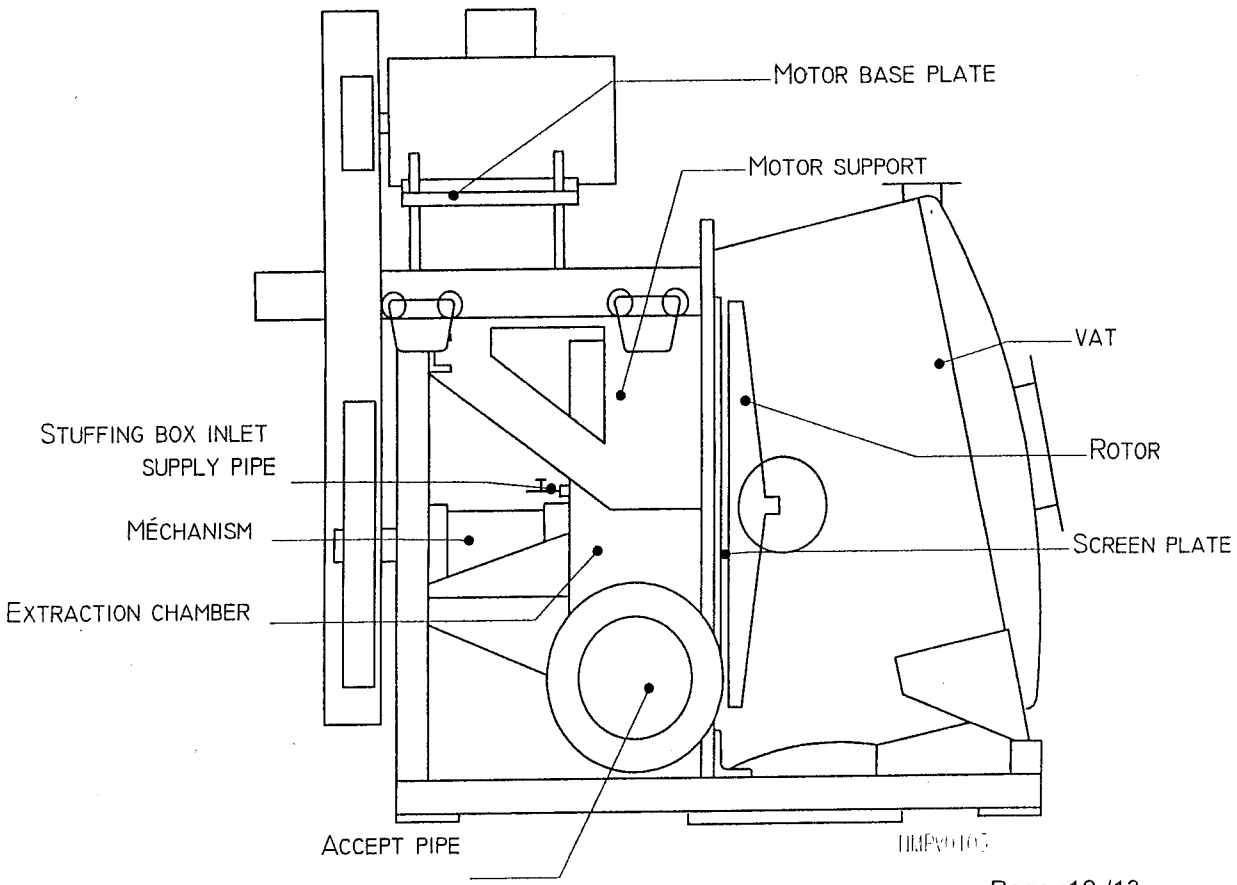
The machine is essentially composed of a vat. A screen plate which is positioned at the bottom of the vat is swept by a rotor to avoid plugging and to exclude the contaminants which remain stored in the vat during the pulper draining phase. The rotor and the screen plate are part of a mechanism which is mounted on a trolley. This mechanism is linked to a motor by a pulley belt drive system.

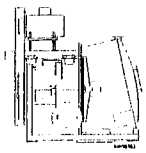
The following equipment is indispensable for the satisfactory operation of the dumping poire.

Regarding the scope of supply, this has been defined on the order form or contract and is indicated here for information purposes only.

The dumping poire is composed of the following:

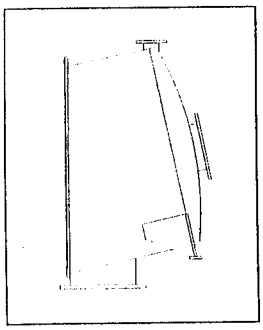
The drawing describes the most general case as regards motor position.In some cases the motor may be mounted on slides or arranged laterally.





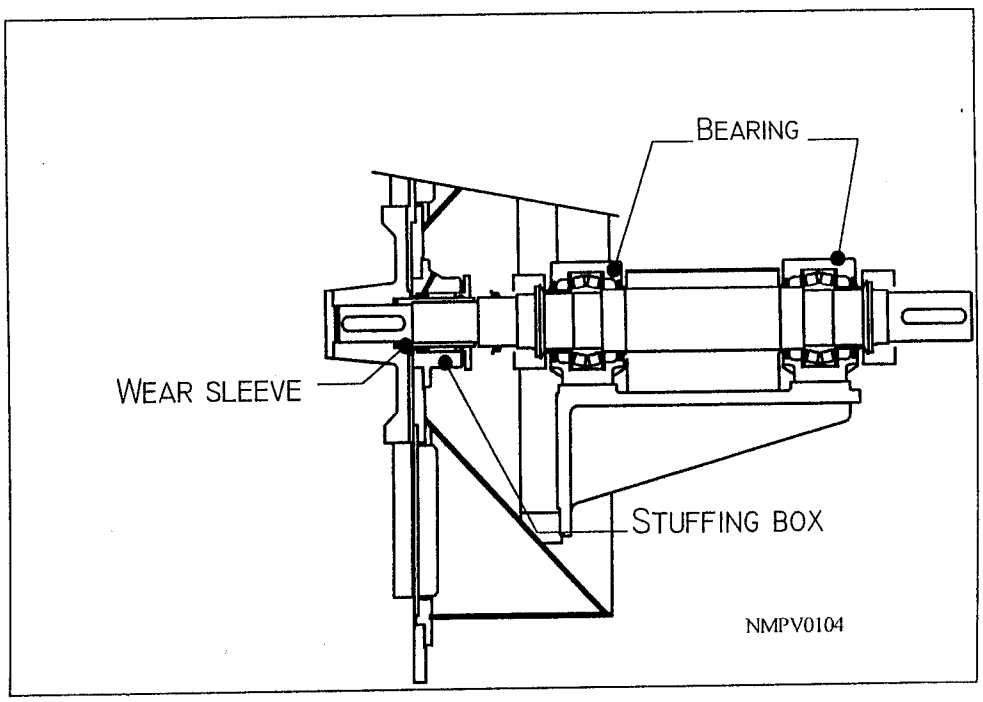
1) A metallic vat made of stainless

steel fitted with :

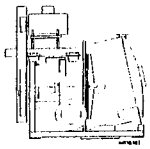


- a stock inlet pipe connected with the pulper draining. (A)
- a rejects pipe. (C)
- an atmospheric air pressure setting pipe. (B)
- an inspection door.
- the fastener studs.

2) A mechanism including :



- A shaft line and its guard.
- Two (2) grease lubricated bearings, their supports and the guard



- a wear sleeve.
- A shaft seal system by stuffing box.
- A stuffing box supply inlet pipe (possible).
- A recovery extraction chamber for the accepted stock.
- An accept pipe.
- A vertical perforated screen plate positioned at the bottom of the vat.
- A rotor sweeping the screen plate.

3) Structural framework including the following :

- A motor support with rail(s) and mobile trolleys supporting the mechanism at its separation from the vat.
- The vertical and horizontal cross members with reinforcing angles.
- A motor base plate or motor slideway.

4) A pulley and belt drive :

- Driving pulley and its bushing.
- Driven pulley and its bushing.
- Belts.
- Guard.

5) A drive motor.

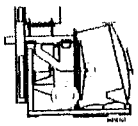
6) Motor startup and protection equipment.

7) Fastening bolts on the structure or anchor bolts on the foundations.

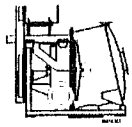
8) MISCELLANEOUS:

- A pulper draining valve.
- A reject valve.
- One control equipment « process »

4. ASSEMBLING AND POSITIONING.



CONTENTS.



4.1. CORRECT CONDITIONS FOR USE.

The dumping poire is a machine which ensures the separation of the fibers and the coarse contaminants at the draining of a pulper running in discontinuous operation. The contaminants are extracted in the dumping poire after a washing operation to ensure a maximum of fiber recovery.

It is provided and designed for this single purpose.

- **Pollution.**

During maintenance operations, make certain that the cleaning and lubrication fluids are properly collected to avoid any pollution of the environment.

- **Temperature**

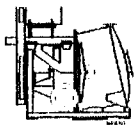
Appropriate devices must be installed to avoid any contact with components of the equipment whose temperature could go up when the machine runs.

- **Mechanical vibrations of the machine**

Generally speaking, as regards vibrations, the machine belongs to the group I or group II in the classification defined by ISO 10816-3 when measurements (principles, means implemented, location of points) are made as prescribed by that standard.
The measurements only concern the equipment itself, as good as new, correctly installed on its foundations, in normal operation and running, thus not integrating disruptions from the surroundings, ancillary components and various connections.

- **Working posts – individual protection devices**

Basically, there is no permanent working post defined for operating KADANT LAMORT machines. Yet depending on the case and type of attendance on these machines, and also on the risks and legislation in force, the mill have to impose on their staff to wear the protection devices best suited. This consideration especially applies to protection against risks generated by the airborne noise level of machines.



- **Airborne noise emitted by the equipment**

The value(s) given in the machine's operating data (see chapter 3) concern(s) the level of airborne noise emitted by the machine.
It is characterised by the level of equivalent A weighted continuous acoustic pressure, measured by sound level meter at 1 metre from the surface and 1.6 metre above the floor or access platform, on a correctly installed and running machine under normal conditions of use, either at the R&D centre of KADANT LAMORT or in an industrial environment. Therefore, the value indicated does not predict the real "in situ" measurements in the mill and in particular the influence of disturbances caused by the motor(s) and the environment. For large size machines, whose level of equivalent A weighted continuous acoustic pressure exceeds 85 dB(A), the acoustic pressure levels are given at different locations (see drawing in chapter 3), measurements being made as previously explained.

- **Electrical securities.**

The customer must provide all devices and their wiring, in order to protect the workers from electrical and mechanical risks. More particularly, an emergency shutdown button should be installed in the proximity of any rotating units and the possibility of an automatic remote-controlled start-up should be clearly signalled.

- **Hydraulically or pneumatically operated valves.**

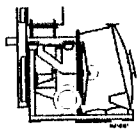
During maintenance and test operations the staff must not be in contact with any of the internal or external movable parts of the control valves.

- **Long-lasting shutdown.**

The equipment will have to be flushed after a prolonged machine shutdown and before start-up.

- **Materials**

The construction materials are selected in accordance with the operating conditions. Specified in the contract. "Special" materials (stainless steel...) are used for the parts in contact with the paste and correspond to the normal operation of equipment according to the rules of the art.

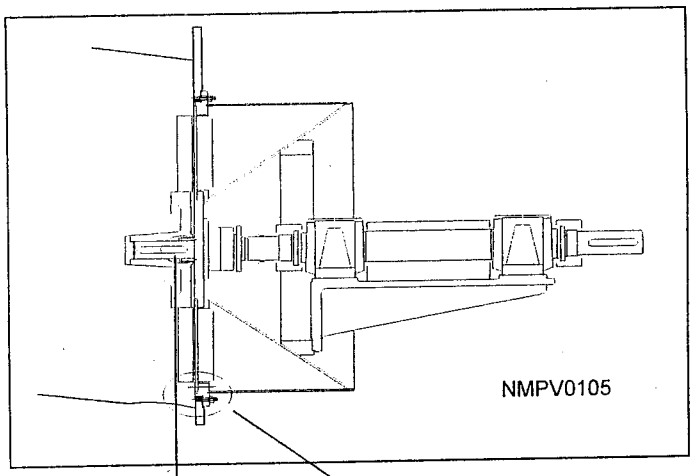


4.2. ASSEMBLING THE DIFFERENT PARTS

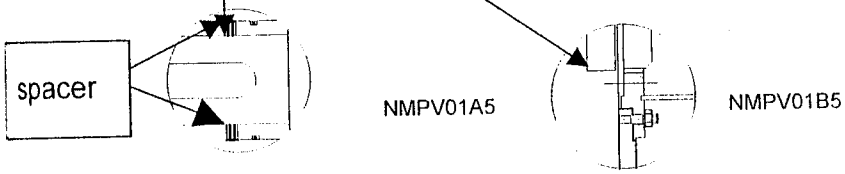
In the case where the machine is delivered in a single piece, refer to paragraph 4.2.3.

If for reasons of packing, transport or the scope of the supply, the parts are delivered separately, the final user has the obligation (before any commissioning operation) to carry out remounting according the instructions below without forgetting the safety elements. This is valid for the equipment as much as for the specific tools.

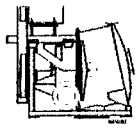
4.2.1. Assembling of the mechanism on the vat.



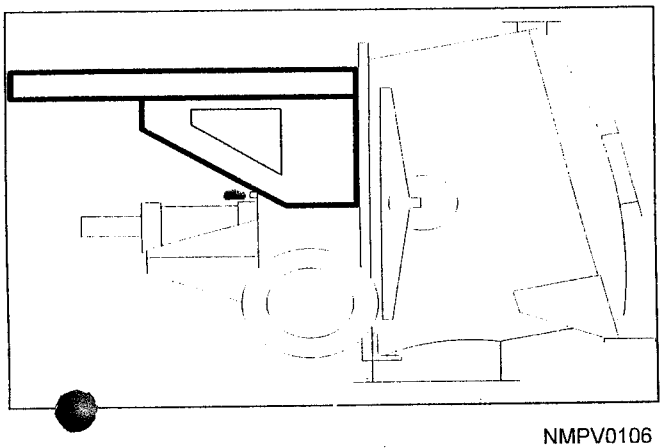
- For reasons of precaution, check the clearance between the screen plate without deflector and the rotor, which must be 4 mm.
- In the case of a screen plate with deflector, the clearance between the rotor and the deflector must be 1 mm.
- To adjust, dismount the rotor and position spacers between wear sleeve and rotor



- Check the positioning of the O-ring seal on the header.
- Fasten the extraction chamber (mechanism) on the vat by means of the studs.

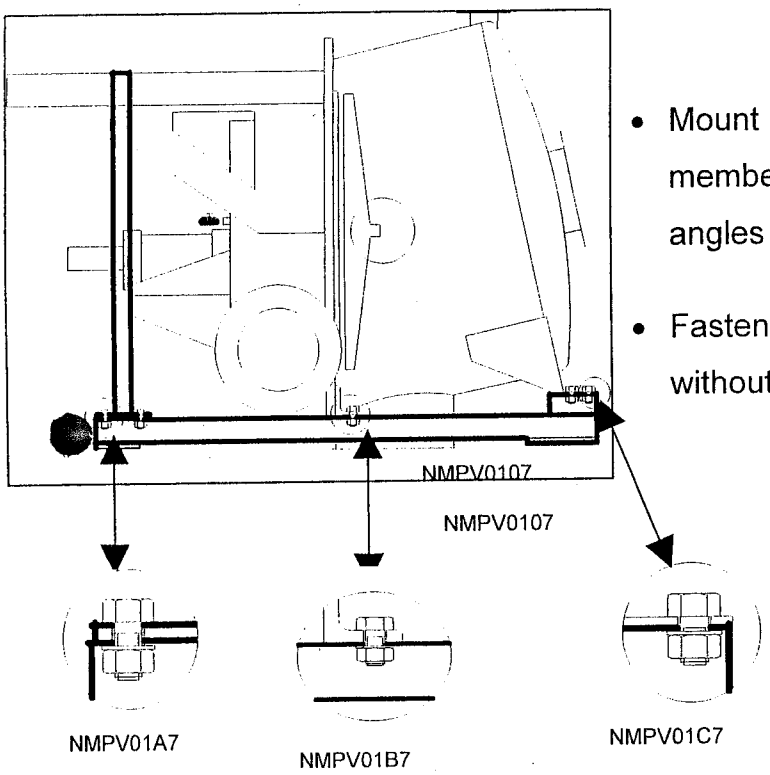


4.2.2. Assembling of the structural framework.

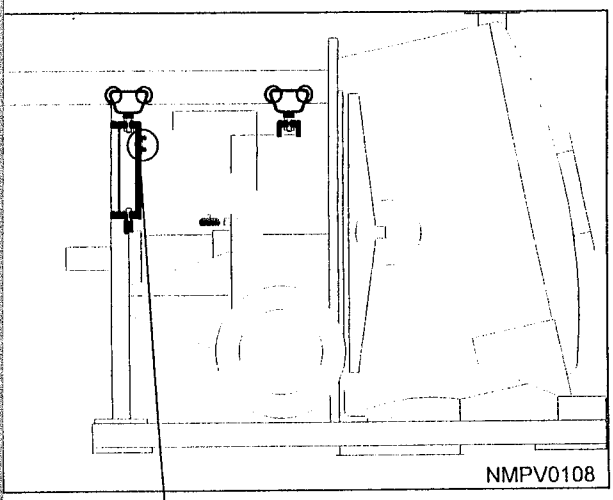


NMPV0106

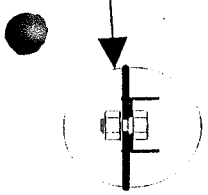
- .Fasten the motor support on to the vat using the bolts.
- Or, if the case arises, fasten the rail on the motor support.



- Mount the lower horizontal cross members with the reinforcement angles (or with the support flats).
- Fasten the vertical cross members without final tightening.

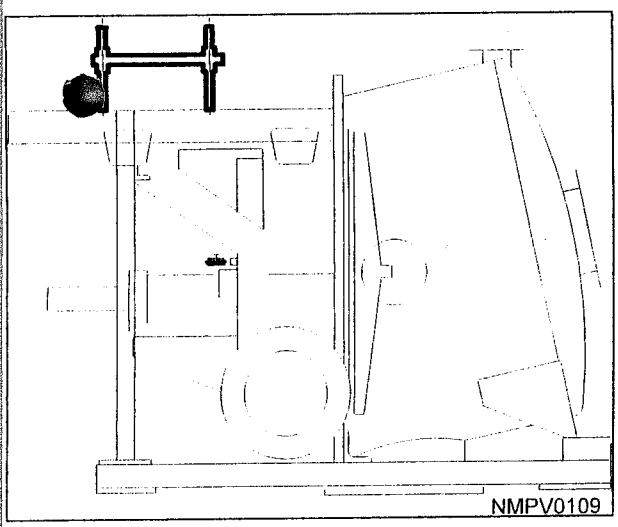


- Position the trolleys.
- Link up the mechanism support witht the trolley (or trolleys as per poire size) with a threaded rod.
- To fasten the trolley (vat side) on the extraction chamber, weld, if the case arises, the clamp in position on the extraction chamber.

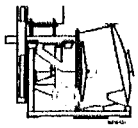


- Fastening(only for poires of size 1, 2 and 3.)

- Carry out definitive tightening of the mounted assembly.



- Install the motor base plate on the support using the threaded rods



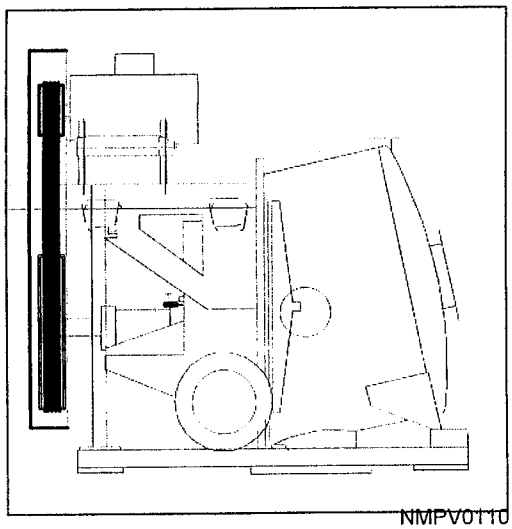
4.2.3. Positioning of the motor:

In the case where the motor is supplied by KADANT LAMORT, or if the « customer's » motor has been mounted by KADANT LAMORT, go on to paragraph 4.3.

- Install the motor on the motor base plate provided for this purpose and fasten it using adequate bolts.
- Leave the threaded tension rods in standby position.

4.2.4. Mounting of the belt drive:

(See supplier document in appendix.)

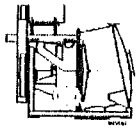


FIRST CASE : DRIVE NOT MOUNTED.

- Install the rear part of the drive guard.

Driven pulley :

- Remove the varnish or protection from the mechanism shaft.



- Mount the conical bushing on the mechanism shaft (enlarge the slot using a screwdriver).
- Mount the pulley on the conical bushing.
- Tighten, without blocking, its fastening screws on the bushing.

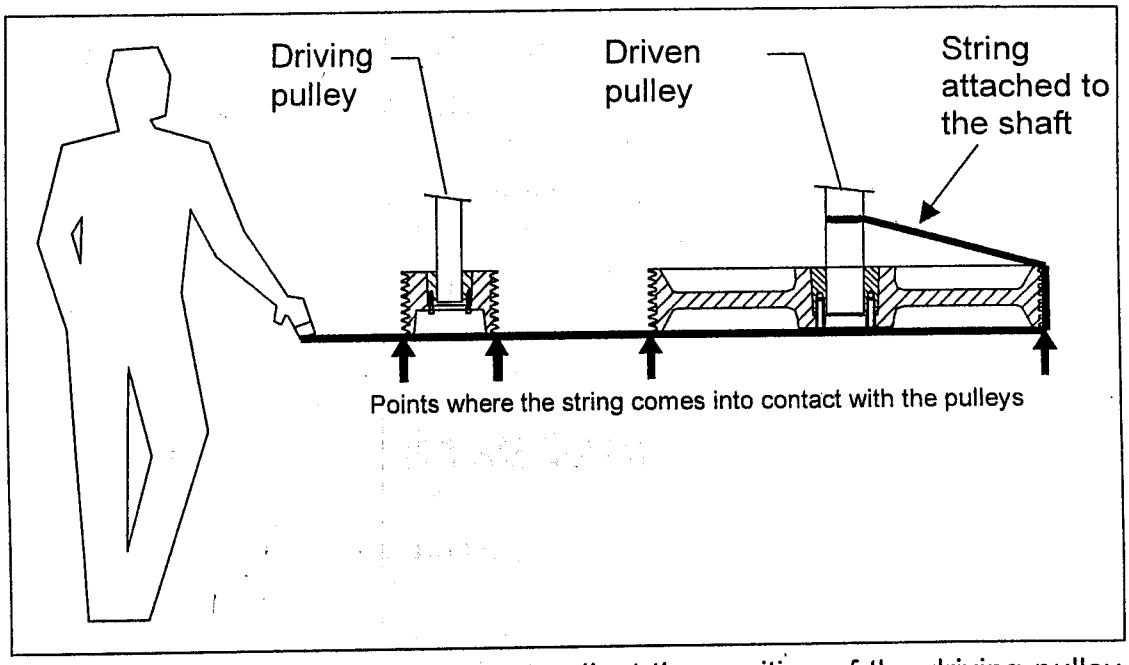
Driving pulley:

- Remove the varnish or protection from the motor shaft.
- Mount the conical bushing on the motor shaft (enlarge the slot using a screwdriver).
- Mount the pulley on the conical bushing.
- Tighten, without blocking, its fastening screws on the bushing.

Aligning the pulleys:

Check the alignment of the pulleys.

When you cannot obtain a suitably straight edge, misalignment of the pulleys can be detected easily by using a length of string as per the method shown below. Assuming that the shafts are parallel, the way they should be, a thin, sturdy length of string attached to one shaft and stretched along the length of the sides of the pulleys should touch all the various points, and in particular the points shown. The alignment can be checked by having each pulley complete one full rotation and noting whether or not the string's contact with the rim is affected. In the event that there is no contact with one or other of the rims, this means they are out of alignment. Such misalignment should be corrected so that the belt and the equipment can operate for their full service life.

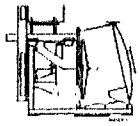


- In the event of misalignment, adjust the position of the driving pulley within the limits allowed by the position of the hub on the end of the motor shaft.

Once you have made this adjustment, finish fully screwing the pulleys onto their hubs.Alignment of the pulleys:

Belts:

- Bring the two pulleys closer together by acting on the threaded rods of the motor base plate or on the motor slideways according to the position of the motor.
- Position each of the belts, first in the driven pulley grooves, and then in the driving pulley.
- Put the belts under tension by acting on the motor-mechanism shaft distance (and while conserving the alignment of the belts) by means of the threaded rods supporting the motor base plate or the motor slideways.
- Position the front face of the guard.



SECOND CASE : **DRIVE IS PARTIALLY MOUNTED IN THE WORKSHOP**

- Dismount the front face of the guard.
- Continue with the mounting procedure of the first case beginning with the « driving pulley ».

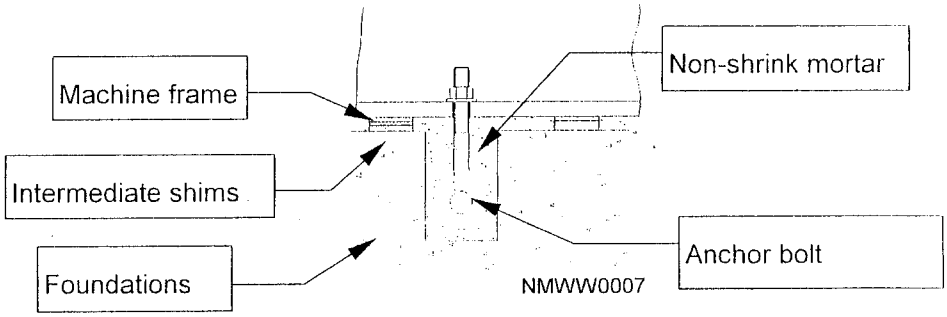
4.3. POSITIONING OF THE MACHINE.

See the foundations drawing.

1st case - fastening on concrete:

- Even if the concrete blocks have been realized very correctly, the scale of precision obtained in civil works (geometry, level, etc.) is the centimeter, while in « mechanics » (in any case at the level of the frame constituting the interface with the foundations) this same scale is the millimeter. It is therefore necessary to compensate this difference to obtain a satisfactory installation : this is the role of shimming.
- Check the geometry (position of the achoring boxes, levels, etc.) on the finished rough foundations. (**Warning**: There is a waiting period to be respected for the correct setting of the concrete).
- Position the anchor bolts in the boxes.
- Place the machine on the foundations and introduce the anchor bolts in the frame holes.

Foundation principle



- In the neighorhood of the fastening holes, introduce a set of metal shims of different thicknesses, permitting compensation of the space between the rough surface of the foundations and the lower frame face. NOTE If on the contrary, there are points where the rough concrete is too »high », these points shall be made flush to avoid an exagerated shimming height (in principle, approx. 30 to 50 mm.)

- Position the nuts and tighten the anchor bolts after having ascertained that the best possible horizontality has been obtained.

- Grout non-shrinking cement into the interstices between concrete, shimming ,frame and anchoring boxes. This manner of working makes it possible to obtain a « perfect » contact (distribution of loads) between a « machined » surface and a rough surface (concrete), as well as to avoid any deformation of the frame.

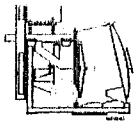
In the case where the thickness of the slab is insufficient, traverse rods are to be used.

2nd case - fastening on metal structure

Taking into consideration the operation of the poire, this case of fastening is not recommended.

Nevertheless, it this solution has been chosen, the metal structure must be sufficiently rigid to avoid any phenomenon of resonance or of vibrations which are harmful to the environment or to the machine itself.

Adequate fastening bolts are to be used. They are to be tightened and



all necessary precautions are to be taken to prevent any indavertent untightening.

4.4. CONNECTIONS AND TESTS.

4.4.1. Connections.

- Carry out the clear water supply connections of the stuffing box (except in the case of dry stuffing boxes). The stuffing box must have a slight leakage and be retightened by the follower after running-in of the packings (representing a few hours of operation).

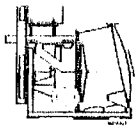
- Connect all the pipings on to the different pipes of the machine.

Unless otherwise stated , the pipes of the KADANT LAMORT'sunit are built for a nominal pressure inferior or equal 10 bars.

The pipes, tappings, connection boxes, etc. on the casings and vats of our pieces of equipment are fabricated or cast according to the relevant code of practice. Positioning of connections as shown on the dimension sheets are theoretical positions, though. In practice, positional deviations relative to these theoretical values are normal. In industrial pipework, the correct connection on site is achieved by adjusting pipe lines to the real position of the connection piece and of the pertinent equipment.

Remember that the valves and the various connecting pipes should have other supporting structures than our units, that the pipes and intakes on our units are not designed for bearing the outside loads such as to the weight proper, the weight of the fluid and various supports, no more than expansion or contraction effects and / or vibration if any. Pipe lay out should take all this into consideration, and balancing devices should be included whenever required.

- Carry out the electrical connections.



4.4.2. Checkings and tests.

Before running any blank test, make sure that all connections are made: piping, shutes and hoppers, if any, for solids removal and also restricting the acces to any movable parts and particularly to the isolating systems (valves....)

Once the installation is completed, it is wise to perform the following verifications:

- Check the greasing of the bearings.
- Check the tension of the belts.

After 72 hours operation of the new belts , stretch again. But a too tight belt tension may quickly damage the bearings.

- Check the clear water supply of the stuffing box (except for the dry stuffing boxes).

After some hours of packing run in:

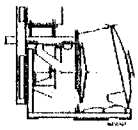
1. Stop main motor.
2. Close water inlet valve of stuffing box.
3. Srew up the follower.
4. Open again water inlet valve of stuffing box.

The stuffing box should always have a slight leak to prevent heating on the packings and too quick wear of the wear sleeve.

- Check the positioning of the safety and protection devices and the positioning of the electrical safety devices.

The guards are only meant to protect the workers from any rotating parts and must not be used as footboards, catwalks, ladders....

- Check the rotation direction (the rotation direction is specified on the space requirement drawing).

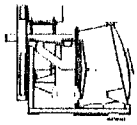


The rotation in the opposite direction as the one stated in the KADANT LAMORT document can be detrimental to the mechanical behaviours of the machine.

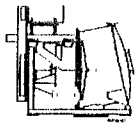
- Check the absence of any mechanical blocking. During this no-load test, it is useful to make a power measurement which can give an indication concerning the quality of the electrical and mechanical mounting.

Even if generally the power consumed by our machines is in the order of 75 to 85% of the connected power, the motors recommended by KADANT LAMORT must be able to develop their rated power in continuous operation. This means that the mains voltage must correspond to its rated value. In addition, the mains voltage must meet the pertinent EU standards.

5. MAINTENANCE



CONTENTS.



- These servicing operations must be performed as per the recommendations of the present manual. If some of these operations are of a very complex character, KADANT LAMORT reserves the right to require that the work be carried out either by its own personnel or by that of the sub-contractor(s) designated by it. If the case arises, this will be indicated in the text of this manual.

- Generally speaking, any servicing operation performed by a third party which deviates from the recommendations of KADANT LAMORT in terms of quality or quantity, shall lead to the loss of the mechanical guarantees, even during the contractual period, and to the rendering null and void of the Declarations of Conformity (or of the Manufacturer), if these have been established. The maintaining of the conformity shall then be the customer's responsibility.

- The same will apply in the case of the use of spare parts not supplied by KADANT LAMORT and relative to the elements exclusively distributed by KADANT LAMORT ensures the exclusive distribution and thus possesses the patent rights.

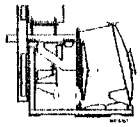
The above also applies for the programmable controllers, software and logic's of which KADANT LAMORT remains the owner, from an intellectual point of view. The servicing areas must be clearly staked out.

Switch off power drive and annex drives (to valves for example)and make sure the machine cannot be started during before the following maintenance operations below.

If some piping elements (shutes, hoppers....) have been taken out for maintenance, put them back before any blank test and before starting the unit.

To ensure worker's safety, the service calls of the various specialists must be co-ordinated.

When making a service call, personnel from KADANT LAMORT may require from the mill a copy of the manual they received with the technical documentation. This also applies to specific tooling supplied with the equipment and further to any service call by third parties.



5.1. ROUTINE VERIFICATIONS.

5.1.4. Lubrication of the bearings.

Refer to the characteristics sheet for the type of grease, the quantity and the periodicity of lubrication operations.

5.1.5. The belt drive.

Check the condition and the tension of the belts every month.

Tighten the belts anew if necessary (see paragraph 3.3.4)

5.1.6. The stuffing box.

Inspect the water inlet of the stuffing box.

In the case of important leakage, check the follower tightening and the condition of the stuffing box packings..

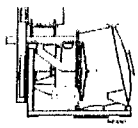
The stuffing box should always have a slight leak to prevent heating on the packings and too quick wear of the wear sleeve.

5.1.7. The rotor and the screen plate.

Before opening the inspection door, verify the shutdown of the machine and the draining of the machine.

- Open the inspection door,remove the safety nut using an adequate tool.
- Check the wear condition of the rotor and the screen plate.

The condition and aspect of rotor is to be checked regularly. Indeed, if the extent of wear is too pronounced, repair and / or overhauling could prove impossible.



5.2. ANNUAL VERIFICATIONS.

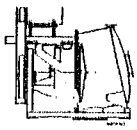
During the « yearly » servicing operation :

- Replace all the seals if necessary.
- Check the condition of the wear sleeve and of the shaft.
- Check the condition of the bearings.

NEVER REMOUNT BEARINGS WHICH HAVE ALREADY BEEN USED.

In the case of a regular inspection of the bearing shock waves, carry out a change of he bearings depending on the results of this inspection. If this is not the case, change the bearings every 2 or 3 years by precaution.

- Check the lubrication circuit, the condition of the pipings as well as the passage of the grease. Replace defective parts if necessary.
- Check the condition of the belts and replace them if necessary.
- Check the wear of the rotor by inspecting the clearance between screen plate and rotor (refer to drawing on the characterists sheet). Wear greater than 5 mm makes the refacing of the blades difficult.
- Check the wear of the screen plate.



5.3. MAINTENANCE OPERATIONS

The maintenance operations listed below can be carried out by the customer under the condition of having taken all the measures necessary for worker safety and having used adequate means of lifting for the mounting and dismounting operations. Take every protecting measure to protect the staff against bursting, projections, explosion and burning during all cutting, grinding, welding or surfacing operations

5.3.4. Changing the drive system

Dismount the drive guard.

For the belts : Loosen the belts by acting on the motor-mechanism shaft distance (using the threaded rods supporting the motor base plate or the motor slideways).

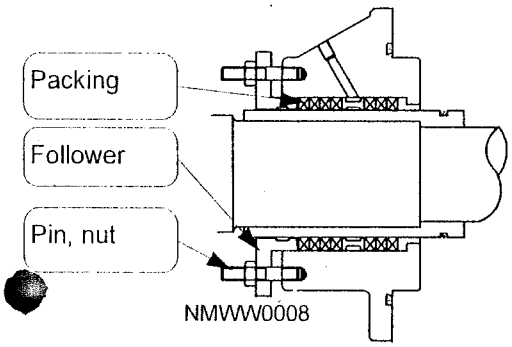
For the pulleys : Take out the fastening screws of the pulleys on their bushing. Use the extraction holes to remove the pulleys. In the case of a change of the drive definition, check that the bushing and the number of belts remain compatible.

it is not authorized to change the drive ratio without having obtained previous, written authorization from KADANT LAMORT.

For remounting, refer to paragraph 4.2.4.

5.3.5. Changing the packings.

If there is a too great stuffing box leakage and the follower is at end of stroke, carry out a packings changing operation.



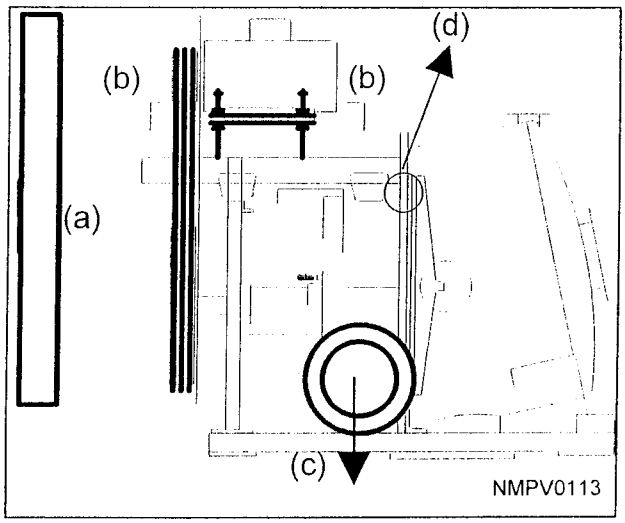
To change the packings

- untighten the studs and the nuts,
- slide the follower along the shaft and remove packings using a hook.

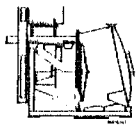
In the case where the lantern ring is mounted between the packings, the rear packings can only be changed when the stuffing box is dismounted (refer to paragraph 5.3.5).

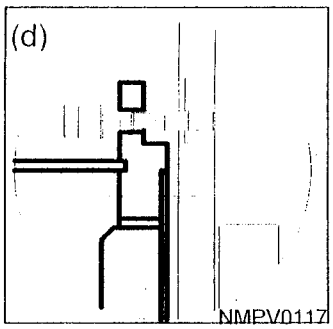
5.3.6. Changing the screen plate or the rotor

In order to change the screen plate or the rotor, push back the mechanism on the rail in proceding as follows :

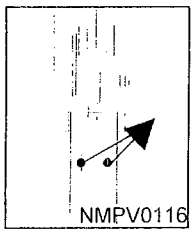


- Remove the drive guard. (a)
- Uncouple the belts from the motor by acting on the motor-mechanism shaft distance. (b)
- Dismount the accept piping. (c)





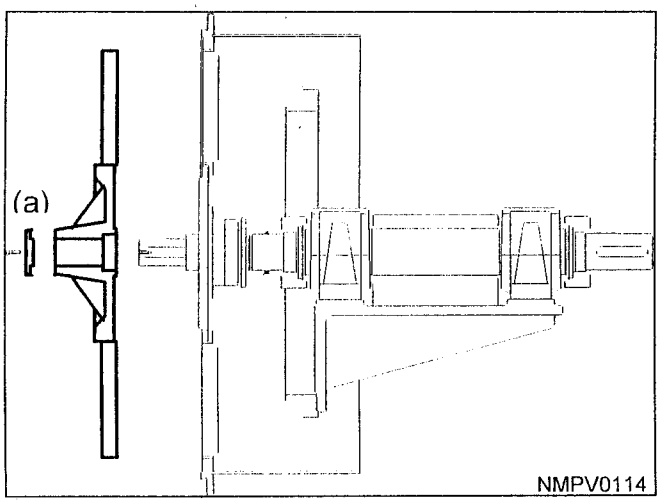
- Dismount the fastenings of the extraction chamber on the vat. (d)



- Uncouple the mechanism support from the structural framework (in the case of a single rail, for sizes 1, 2 and 3).

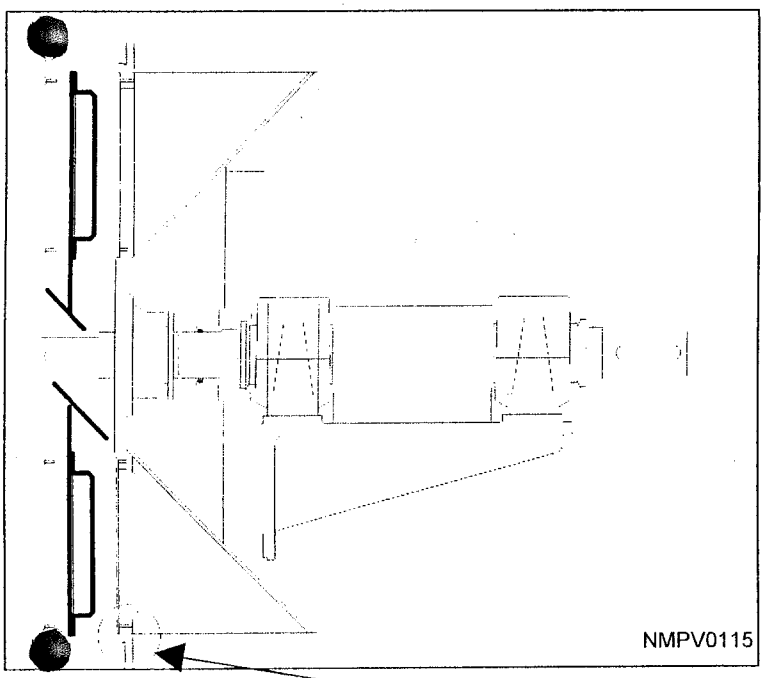
- Push back the mechanism..

To handle the rotor or the screen plate, refer to the handling drawing.



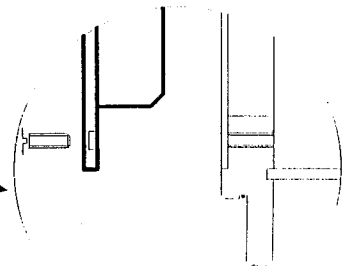
To dismount the rotor:

- Dismount the rotor blocking disk (a).
- Extract the rotor using the extraction holes.



To dismount the screen plate:

- Unscrew fastening screws of screen plate on extraction chamber.
- The screen plate must be dismounted in sector for large poire sizes.



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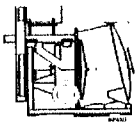
These servicing operations permit changing the extraction chamber joints, the rotor blocking disk joints and the wear sleeve seals.



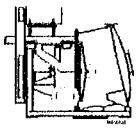
When changing the screen plate or the rotor, verify the clearance between the screen plate and rotor (4 mm for screen plates without deflector, 1 mm for those with deflectors). Adjust by the spacers slipped on the shaft.

5.3.7. Changing the wear sleeve.

- Dismount the rotor (refer to paragraph 5.3.3)
- Take out the key.
- Perform the wear sleeve extraction operation using the extraction holes, if they are provided for this purpose.

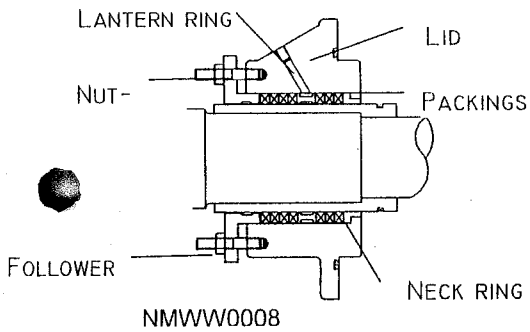
5.3.8. Changing the neck ring.

- Push the mechanism back on the rail (refer to paragraph 5.3.3).
- Dismount the rotor.
- Dismount the driven pulley.
- Dismount the shaft guard and the nuts guards.
- Remove the bearing housings positioning pins.
- Dismount the bearing housings fastenings.
- Slide the shaft line to the rear using a hoist.



Dismounting the stuffing box.

- Shut the water inlet valve.
- Disconnect the pipe.



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Dismount the nuts, the follower and the stuffing box lid (except for size 1 poires).

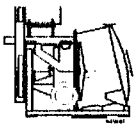
- Remove the packings, then the lantern ring and the neck ring.

This servicing operation permits changing the O-ring seals and all of the packings.

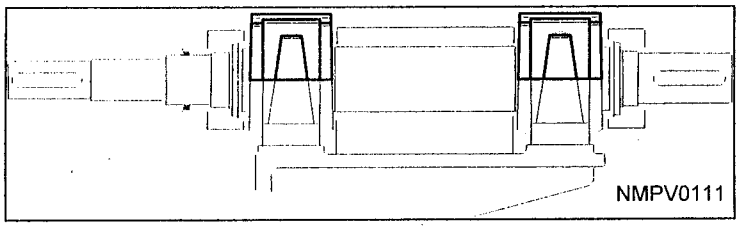
5.3.9. Changing the bearings

For dismounting, cleaning and mounting of bearings, we advise you to contact your nearest supplier

- Push back the mechanism and dismount rotor (see paragraph 5.3.3.).
- Dismount the shaft guard and the nuts protection guards.
- Dismount the driven pulley.
- Take out the bearing housings positioning pins and mark the positions of the bearing housings with respect to their support (front bearinghousing and rear bearing housing).
- Dismount the bearing housings fastenings.



- Slide the shaft line to the rear with a hoist.



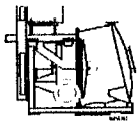
- Dismount the bearing housings covers.
- Remove the shaft from the bearing housings.

- Take out the bearings blocking nuts and perform their extraction operation.
- Heat the new bearings either by oil bath or by induction and then install them.
- Verify the state of the tightness, and change the seal if necessary.
- Take advantage of this servicing operation to change all the stuffing box packings (specially when the lantern ring is positioned between the packings).
- Remount the assembly by using the positioning marks of the bearing housings with respect to their support.
- Check lubrication and the positioning of the safety and protection devices.

5.3.10. Changing the bearing housings.

To change the bearing housings, procede in the same way as for changing the bearings (paragraph 5.3.6), then perform the shaft alignment with respect to the motor:

- Remount the shaft line in positioning it on the bearing housingss support.



- Remove the adjustment spacers between the rotor and screen plate.
- Push the rotor against the screen plate, and fasten the bearing housings.
- Install the positioning pins by drilling the bearing housings support at the same time as the bearings housings opposite the existing holes.
- Install the adjustment spacers between the rotor and the screen plate and check on the circumference that the clearance is regular (4 mm for screen plate with deflector, 1 mm for screen plate without deflector).
- Remount the mechanism assembly on the vat.

6. ASSEMBLY DRAWING AND SPARE PARTS

POIRE DE VIDANGE - MECANISME 1
DUMPING POIRE - MECHANISM 1

Nomenclature RPVC1/B/16 - Plan RC 10367 A
Parts list RPVC1/B/16 - Drwg RC 10367 A

Offre/Quotation/Angebot/Cotización N°

N°L 0047 Code	REP ITEM	QTE QTY	DESIGNATION DES PIECES DESIGNATION OF PARTS	PRIX UNIT. UNIT PRICE	TOTAL (EUR) TOTAL
			VERSION DOUILLE EN Z30C13 TRAITE VERSION WITH TREATED SLEEVE IN Z30C13		
DOUX978JS	39	1	Douille d'usure - 90 x 180 - Z30C13 revêtue carbure de Tungstène - 100865 Wear sleeve - Tungstene carbide coating		
			VERSION DEFLECTEUR POUR GRILLE PERFOREE VERSION WITH BAFFLE FOR PERFORATED PLATE		
PLMD996JS		2	Déflecteurs 12x6x425 - Z30C13 - C 10934 Baffles		
			FOIL STANDARD STANDARD ROTOR		
ROTP990JF	46	1	Foil à 3 pales - 900 - AISI 316 - 075431b Rotor with 3 foils		
			FOIL EN Z160CDV12 ROTOR IN Z160CDV12		
ROTP990JT	46	1	Foil à 3 pales - 900 - Z160CDV12 - 500/600HB 075431b Rotor with 3 blades		

La présente liste est sujette à changement en fonction de l'évolution technologique.
The present list is likely to be amended according to technological evolution.

POIRE DE VIDANGE - MECANISME 1
DUMPING POIRE - MECHANISM 1

Nomenclature RPVC1/B/16 - Plan RC 10367 A
Parts list RPVC1/B/16 - Drwg RC 10367 A

Offre/Quotation/Angebot/Cotización N°

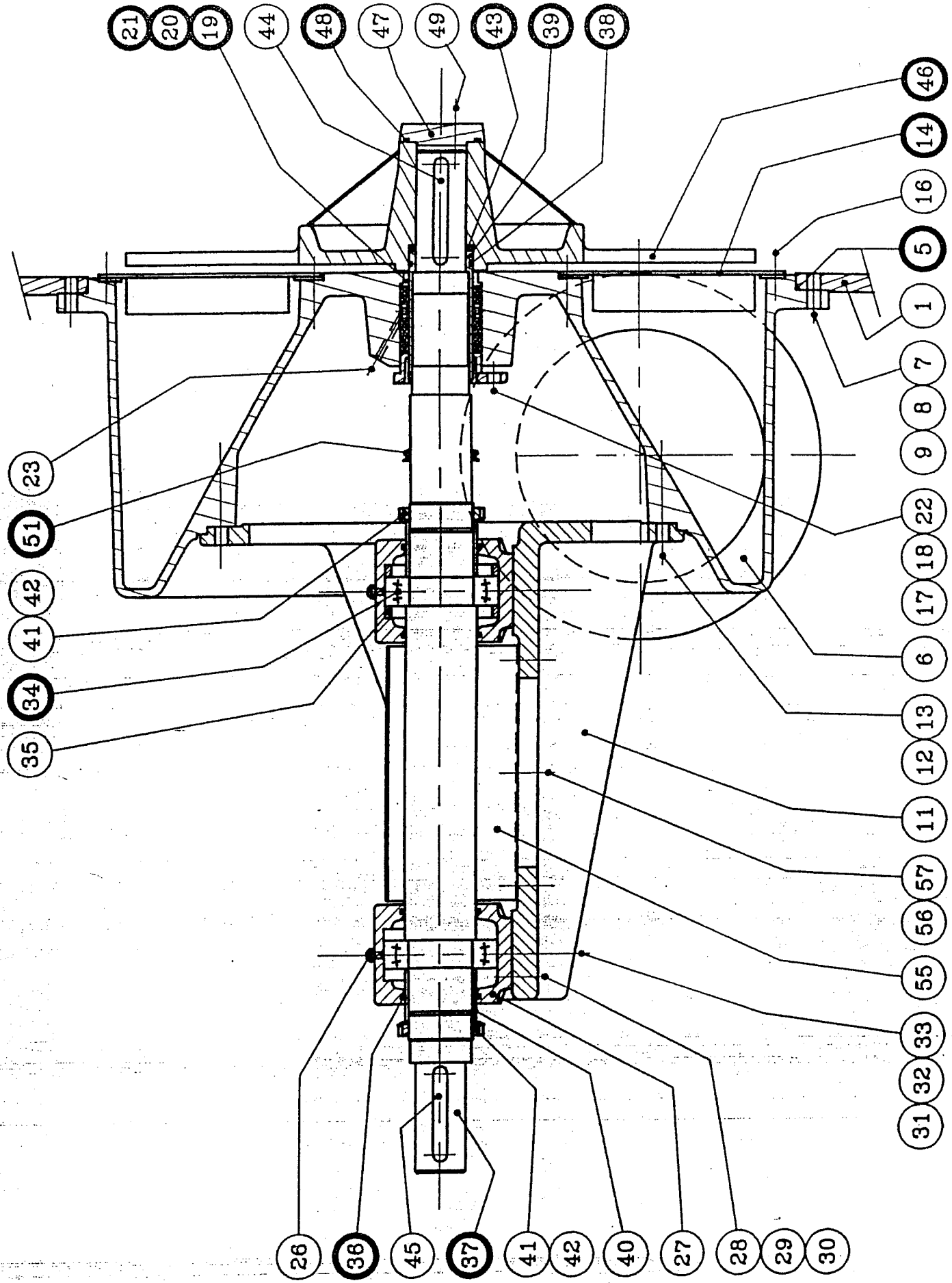
N°L 0047 Code	REP ITEM	QTE QTY	DESIGNATION DES PIECES DESIGNATION OF PARTS	PRIX UNIT. UNIT PRICE	TOTAL (EUR) TOTAL
			GRILLE PLATE		
	14	1	Grille Plate		
			COURROIES - ANCIEN MODELE BELTS - OLD MODEL		
COUT928	106	6	Courroie VP 2 - SPB - long. 3750 Belt		
			COURROIES - NOUVEAU MODELE (janvier 92) 30 kW BELTS - NEW MODEL (January 92) 30 kW		
COUT898	106	3	Courroies VP 2 - SPB - long. 4120 Belts		
			COURROIES - NOUVEAU MODELE - 37 & 45 kW BELTS - NEW MODEL - 37 & 45 kW		
COUT898	106	4	Courroies VP 2 - SPB - long. 4120 Belts		
			VERSION DOUILLE STANDARD VERSION WITH STANDARD SLEEVE		
DOUX989JS	39	1	Douille d'usure - 90x180 - Z30C13 - 075485-3 Wear sleeve		
			VERSION DOUILLE EN AISI 317L TRAITE VERSION WITH TREATED SLEEVE IN AISI 317L		
DOUX978JM	39	1	Douille d'usure - ϕ 90x180 - AISI 317L revêtue carbure de Tungstène - 100865 Wear sleeve - Tungstene carbide coating		

POIRE DE VIDANGE - MECANISME 1
DUMPING POIRE - MECHANISM 1

Nomenclature RPVC1/B/16 - Plan RC 10367 A
Parts list RPVC1/B/16 - Drwg RC 10367 A

Offre/Quotation/Angebot/Cotización N°

N°L 0047 Code	REP ITEM	QTE QTY	DESIGNATION DES PIECES DESIGNATION OF PARTS	PRIX UNIT. UNIT PRICE	TOTAL (EUR) TOTAL
JOPE001QFh	5	1	Joint torique - tore 5x3155 O-ring - torus 5x3155		
GRFA983JG	19	1	Grain de fond - AISI 316L - 075485-5 Neck ring (Packing ring retainer)		
BADA980JG	20	1	Bague d'eau - AISI 316L - 075485-1 Lantern ring		
TREC981e	21	6	Tresse - 12x12x323 - LATTYFLON 4788 Packing		
RMT090F01	34	2	Roulement - 22218CC/W33 - 90/160x40 Bearing		
JOPK090A02	36	4	½ étanchéité - TSNH 218 A ½ sealing device (one seal)		
ARBC927TB	37	1	Arbre 100x1410 - DF095 - 075486 Shaft		
JOPT021QF	38	1	Joint torique R.41 O-ring R.41		
RNDP81AC01	43a	1	Cale d'épaisseur - 81/89x3 - A37 - 075485-4 Thickness shim		
RNDP81AC02	43b	1	Cale d'épaisseur - 81/89x4 - A37 - 075485-4 Thickness shim		
RNDP81AC03	43c	1	Cale d'épaisseur - 81/89x2 - A37 - 075485-4 Thickness shim		
JOPT099QF	48	1	Joint torique R. 46 O-ring		
JOPV017QC	51	1	Joint V-Ring - V 85 - V-ring		



LAMORT

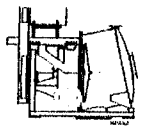
61302 VITRY LE FRANCOIS
B.P. 46 CEDEX FRANCE

CROQUIS DES PIECES DE RECHANGE
POIRE DE VIDANGE MECANISME N°1

NOT	Date: 26/07/93	
DB		
DPa	RC 10367	A

7. DECLARATION.

(This chapter is only valid for the equipment supplied and commissioned on the territory of the European community)



- The equipement designed by KADANT LAMORT bears a name plate which is reproduced in the Declaration of Conformity (or Integration) contained in this handbook.

- The location of the name plate can be found in the instructions.(see specification sheets).

- Whenever requiring our services, please specify the references shown on the name plate, and more particularly the type of equipment and the order reference at KADANT LAMORT.

- In conformity with Directive 89/392/CE and its transposition into French Law , some machines from KADANT LAMORT may call for Declarations that will be included when the equipment is meant to be used in the territory of the European Community.

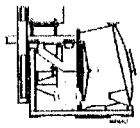
- There are two types of declaration:

    - Declaration of Conformity : "complete" machines"

    - Manufacturer's declaration: "incomplete" machines or sub-assemblies.

- The Declaration of Conformity, if any, states the limits of the equipment found "in conformity". This is valid under the conditions stipulated in the Warning section. Besides, the customer must make sure that overall conformity is obtained after he has added such missing elements as motors, valves, guards, etc...

- If any Manufacturer's declaration is delivered, this means that although the equipment supplied by KADANT LAMORT complies with the general safety obligations, the responsibility rests with the customer to ensure total conformity under the terms of Directive 89/392/CE. This will have to be done when complementing the machine and/or for a complex installation and/or peripheral equipment.



- If the equipment is supplied outside the EC, it rests with the cutomer to take all necessary measures in terms of safety, to meet the local legislation requirements if they are more restricting than Directive 89/392/CE.

- Any modification to the machine without KADANT LAMORT's approval makes this declaration null and void.

- The declaration CE passed on by our company is valid as far as the installation of the unit was made according to the advices, the drawings, sketches, the recommendations ... contained in the present instruction manual or as far as the client proceeded by his care to the possible adaptations made necessary by the different concept retained by him for the installation, were said adaptations respecting the prescriptions of the directive 89 / 392 / CEE.

8. APPENDICES

BELT INSTALLATION AND MAINTENANCE

- Pulley grooves should show no signs of damage and should be cleaned before installing belts.

- Pulley shafts should be parallel and the pulleys aligned.
Before securing motor or machine in position check pulley alignment as shown below.

INSTALLATION ET ENTRETIEN DES COURROIES

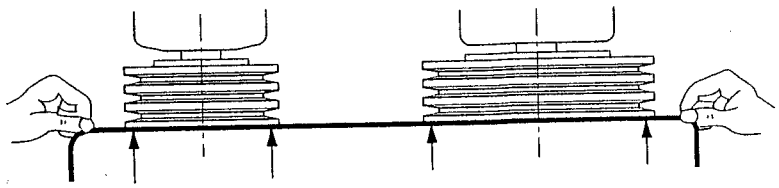
- Les gorges des poulies ne doivent pas présenter de trace de chocs et doivent être nettoyées avant montage des courroies.

- Les axes des poulies doivent être parallèles et les poulies alignées.
Avant de bloquer le moteur ou la machine, vérifier l'alignement des poulies selon la méthode ci-dessous.

MONTAGE UND WARTUNG DER KEILRIEMEN

- Die Laufrillen müssen sauber und frei von Dellen, Kratzern oder anderen Oberflächenfehlern sein.

- Durch entsprechende Wellenausrichtung - am einfachsten mit Hilfe einer außenseitig an die Stirnwände beider Scheiben angelegten Schnur - ist für eine einwandfreie Ausfluchtung zu sorgen.



- A set of TEXROPE narrow V-belts can be installed without checking marks as belts have been length-stabilized.

- In general, belt installation with adjustable centre distance is preferable.

- Adjustable Centre Distance
(Motor or machine on slide rails)
To permit belt positioning and tightening, allow a take-up adjustment of - 3% to + 3% of effective calculated centre distance E.
Never force the belts on as this might damage the tensile member.

- Fixed Centre Distance
For belt tightening, use an idler on the slack belt strand :
- on inside face of belt set if idler is grooved
- on outside face of belt set if idler is cylindrical.

- Tensionning of TEXROPE VP 2 and CSX 2 Belts.
before tensionning the belts installed on the pulleys, mark out two thin transverse lines on back of belt in middle of set. These lines should be as far apart as possible while both being on straight section of belt strand (see sketch below).

- Une nappe de courroies étroites TEXROPE peut être montée sans contrôle du repérage, ces dernières étant stabilisées en longueur.

- D'une manière générale, préférer les montages avec entraxe réglable.

- Entraxe réglable
(moteur ou machine sur glissières)
Pour permettre la mise en place et la tension des courroies, réserver de part et d'autre de l'entraxe réel calculé E, une course de réglage de - 3% à + 3% de E.
Ne jamais faire passer les courroies en force, au risque de détériorer l'armature.

- Entraxe fixe
Utiliser pour la tension un galet tendeur sur le brin mou des courroies :
- soit sur la face interne de la nappe si c'est un galet à gorges,
- soit sur la face externe de la nappe si c'est un galet lisse.

- Mise sous tension des courroies TEXROPE VP 2 et CSX 2
Avant de tendre les courroies montées sur les poulies, tracer sur le dos d'une courroie située au milieu de la nappe, deux traits fins transversaux ; ces repères doivent être aussi écartés que possible tout en demeurant ensemble sur la partie rectiligne du brin de courroie (voir croquis ci-dessous).

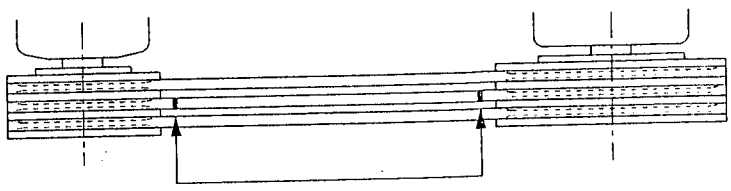
- TEXROPE Schmalkeilriemen können ohne Kontrolle zu Sätzen vereinigt werden, da sie verfahrenstechnisch "längenstabilisiert" sind.

- Im allgemeinen ist eine Montage mit verstellbarem Achsabstand vorzuziehen.

- Der Achsabstand ist verstellbar
(Motor oder Maschine auf Spannschienen)
Zum zwanglosen Auflegen sowie zum Spannen der Riemen soll eine Verstellmöglichkeit des errechneten Achsabstandes E von - 3% bis + 3% gegeben sein.
Niemals die Riemen gewaltsam in die Rillen drücken, da dies zu einem Bruch der inneren Zugträger führt.

- Der Achsabstand ist fest
Eine auf das gezogene Trum wirkende Spannrolle ist vorzusehen, welche :
- rillig auszuführen ist, wenn sie von innen nach außen drückt,
- glatt auszuführen ist, wenn sie auf die Riemenrücken drückt.

- Spannen der TEXROPE VP 2 und CSX 2 Riemen :
Vor dem Spannen der in die Scheiben bereits eingelegten Riemen auf dem Rücken eines in den mittleren Rillen liegenden Riemens zwei feine, möglichst weit voneinander entfernte Querstriche auf gleichem geraden Abschnitt anbringen (siehe Darstellung unten).



Thin lines on straight section of belt strand.

Traits fins sur la partie rectiligne du brin de courroie.

Feine Kontrollstriche auf dem Rücken des geraden Abschnittes.

BELT INSTALLATION AND MAINTENANCE

Gradually tighten belts after running them for approximately one minute until length between marked lines is increased by percentage given in table below.

After about 24 hour running, check the drive and retighten belts if necessary, to respect elongation given in table between two more marked lines.

Example :
An initial distance of 1000 mm between the two marked lines is increased by take-up travel to 1006 mm (0.6%), 1008 mm (0.8%) or 1010 mm (1%) as the case may be.

INSTALLATION ET ENTRETIEN DES COURROIES

Tendre les courroies progressivement après les avoir fait tourner pendant environ une minute jusqu'à ce que la longueur entre repères soit amenée au pourcentage indiqué dans le tableau ci-dessous.

Après 24 heures de fonctionnement environ, examiner la transmission et retendre les courroies si nécessaire, de façon à respecter l'allongement donné dans le tableau entre deux nouveaux repères.

Exemple :
Une distance initiale de 1000 mm entre les deux repères sera amenée par le jeu de la tension à 1006 mm (0.6%), 1008 mm (0.8%) ou 1010 mm (1%) suivant le cas.

MONTAGE UND WARTUNG DER KEILRIEMEN

Die Riemen allmählich spannen, indem man den Antrieb mehrmals ca. 1 Minute laufen läßt und sie anschliessend solange nachspannt, bis die in der folgenden Tabelle angegebene prozentuale Vergrößerung des Abstandes zwischen den Kontrollstrichen erreicht ist.

Nach ca. 24 Betriebsstunden Abstand der Kontrollstriche nachmessen und, falls notwendig, Riemen nachspannen.

Beispiel :
Ein ursprünglicher Abstand zwischen den Kontrollstrichen von 1000 mm soll auf 1006 (0.6%), 1008 (0.8%) oder 1010 (1%) gebracht und gehalten werden.

Drive data **Caractéristiques de la transmission** **Antriebsdaten**	**Uniform motor torque or load moment** **Couple moteur et résistant uniformes** **Gleichmäßige, wenig veränderliche Belastung**	**Irregular motor torque or load moment** **Couple moteur ou résistant irréguliers** **Ungleichmäßige Belastung, Drehmomentspitzen**
Small pulleys with short centre distance (E < D + d) Poulies de petits diamètres, entraxe court (E < D + d) Kleine Scheibendurchmesser, kurzer Achsabstand (E < D + d)	0,6%	0,8%
Medium or large Pulleys with medium or large centre distance Poulies de diamètres moyens ou grands, entraxe moyen ou grand Größere Scheibendurchmesser, kein kurzer Achsabstand	0,8%	1%

Insufficient tension results in belt slippage and premature wear. It is advisable to check drive periodically and tighten it if necessary.

Une tension insuffisante entraîne un glissement et une usure prématurée de la courroie. Il est recommandé de vérifier de temps en temps la transmission et de la retendre si cela s'avère nécessaire.

Falsch gespannte Riemen verschleißen vorzeitig. Es empfiehlt sich deshalb, den Antrieb intervallmäßig auf die Haltung der Riemenspannung zu kontrollieren.

INSTALLATION INSTRUCTIONS *Magic-Grip-T*

TO ASSEMBLE

1. Clean shaft, bush, screws and the pulley taper bore.

2. The slitted taper bush is fitted on the shaft after enlarging the slit with a screwdriver.

3. Lubricate the conical bore of the pulley and slide it on the bush - the drilled holes for screws must correspond to the tapped holes.

4. Lubricate the thread and the head-underface of both screws, place and tighten them one after the other progressively until the blocking-up, without exceeding the torque indicated in the table page MGT2.

INSTRUCTIONS DE MONTAGE *Magic-Grip-T*

MONTAGE

1. Nettoyer arbre, douille, vis et l'alésage conique de la poulie.

2. Monter la douille conique fendue sur l'arbre en écartant l'ouverture de la douille à l'aide d'un tournevis.

3. Graisser l'alésage conique de la poulie, la monter sur la douille en faisant correspondre les trous des vis.

4. Graisser le filetage et le dessous de la tête des 2 vis, les mettre en place puis les serrer alternativement et progressivement jusqu'au blocage sans dépasser le couple de serrage donné dans le tableau page MGT2.

MONTAGEANLEITUNG *Magic-Grip-T*

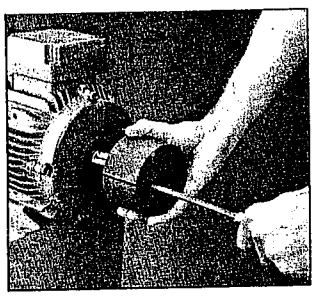
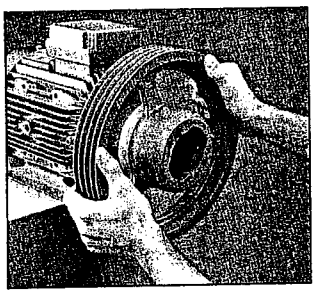
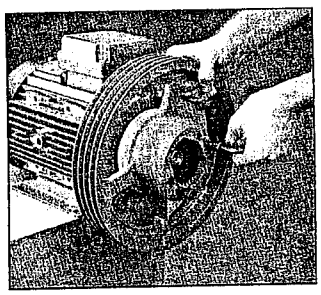
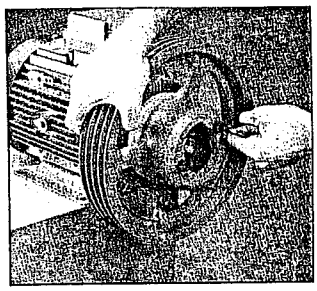
EINBAU

1. Welle, Buchse, Schrauben, sowie konische Bohrung der Scheibe säubern.

2. Die Buchse auf die Welle setzen, gleichzeitig deren längsseitigen Schlitz mit Hilfe eines Schraubenziehers leicht verbreitern.

3. Konische Bohrung der Scheibe fetten und letztere so auf die Buchse setzen, daß sich die Verschraubungslöcher decken.

4. Gewinde und Kopfauflageflächen der 2 Schrauben fetten. Schrauben einsetzen und gleichmässig wechselweise festziehen, ohne das Schraubenanzugsmoment gemäß Tabelle auf Seite MGT2 zu überschreiten.

REMOVAL

Remove both set-screws, screw them into the tapped holes of the pulley, provided for disassembling, and tighten them progressively until the release of the pulley.

DEMONTAGE

Démonter les 2 vis de serrage, les visser dans les trous de démontage de la poulie et les serrer alternativement jusqu'au déblocage.

AUSBAU

Beide Schrauben lösen, herausnehmen und wechselweise in die Gewindelöcher der Scheibe bis zur Befreiung des Spannsitzes verschrauben.