

FAST & FLUID MANAGEMENT
CW Bench Model INSTRUCTION MANUAL

22CW

ENGLISH



I	TABLE OF CONTENTS	PAGE
II	INTRODUCTION AND WARRANTY	
	A – Introduction	3
	B – Standard terms and conditions of sale	3
III	SAFETY INSTRUCTIONS	
	A – General safety instructions	7
	B – Specific Warnings	7
IV	INSTALLATION	
	A – Unpacking the dispenser	8
	B – Installing the canisters –canister turntable	9
V	OPERATION	
	A – First time operation	11
	B – General use of the dispenser	13
VI	PREVENTITIVE MAINTENANCE	
	A – Do’s & Don’ts	16
	B – Daily Maintenance	17
	C – Weekly Maintenance	19
	D – Periodic Maintenance	19
VII	GENERAL MAINTENANCE	
	A - Replacement of Piston Seals - Model 22CW	21
	B - Pump Calibration – Model 22CW	23
IIIX	TROUBLESHOOTING	
	A – Introduction	25
	B – Problem solving	25
IX	SERVICE AGENTS	
	A – Service Agents	26
X	TECHNICAL SPECIFICATIONS	
	A – Specifications	27

A - Introduction

By selecting a Fast & Fluid Management Color Dispenser you have opted for a product which is the result of intensive research. Top-quality components, craftsmanship and a modern ergonomic design all serve to guarantee a long service life and a high degree of user friendliness.

Blendorama Colorant Dispensers have been designed for long life and will withstand the normal wear expected during use in plant or in store. However, each is a precision machined metering device and should be treated accordingly

The basic unit of your dispensing system is represented as "Y" (except for metric and hybrid systems), and the volume of this unit (approx. one fluid ounce) has been determined by the paint manufacturer. The "Y" unit is further divided into (usually) 32, 48 or 64 sub-units. The basic unit of the metric dispenser is one milliliter.

With the exception of Models 22/23XC, all feature a small bore inner pump to dispense small amounts of colorant very accurately. The 1/64, 1/48 or milliliter units are divided further for this inner pump.

B - Standard Terms & Conditions of Sale

1. Application of Terms

These terms and conditions apply to every sale of a Blendorama Colorant Dispenser and Blendormix mixers and each and every component part thereof ("the Product") by Fast & Fluid Management Australia ("the Sellers) or any of its related companies to a Buyer and in the event that such Buyer purchases the Product for resale, such resale shall be effected on the terms and conditions set out herein, except for price, and such resale shall be deemed to be effected on such terms and conditions in the name and on behalf of the parties to such resale transaction only, save for the Warranty contained in paragraph 6 which is given in the name and on behalf of the Seller only

2. Passing of Risk - transfer of title in the product

Prices are quoted ex-works. The risk of loss or damage to the Product shall pass to the Buyer in the case of a contract for supply of the Product immediately upon delivery either to the Buyer or a nominated carrier for transportation to the Buyer or to a place or site nominated by the Buyer or at the direction of the Buyer. Such delivery shall be deemed to be delivery to the Buyer and acceptance by the Buyer of the Product whether or not the Buyer is present at the time of delivery to sign a receipt for the Product. Notwithstanding the foregoing property in and title to the Product shall not pass to the Buyer until payment in full for the Product has been received by the Seller

3. Delivery Time frame

Any date(s) given to the Buyer by the Seller for delivery shall be regarded as estimates only and while the Seller shall use its best endeavors to meet such dates the Buyer agrees that no liability shall attach to the Seller for any loss or damage, direct or consequential arising out of any delay in delivery or for non-delivery from any cause whatsoever. If for any cause beyond the Seller's control, the Seller is unable to deliver either within a reasonable time or at all, the contract shall be voidable at the Seller's option with no right of either party to claim any damages against the other

4. Sole Terms

These terms and conditions constitute the entire agreement for sale of the Product between the Seller and the Buyer and shall prevail over any differing terms and conditions incorporated or purported to be incorporated into the sale of the Product by the Buyer or by the Seller or otherwise alleged to have been agreed and shall only be varied modified or rescinded by written agreement of the Seller.

B - Standard Terms & Conditions of Sale (cont')

5. **Limitation of Liability**

Subject to Paragraph 6 of these terms and conditions and in particular sub-paragraph 6.7 hereof the seller shall neither be subject to nor incur, and the Buyer releases the Seller from any claim or liability (including consequential loss or damage, loss or use or profit) by reason of delay, defective or faulty components or materials or workmanship, negligence, or any act, matter or thing done admitted or omitted by the Seller or by reason of the unsuitability of the Product for the Buyer's , purpose and the Buyer acknowledges that it did not rely on the skill or judgment of the Seller in selecting and ordering the Product for the purpose for which the same was required by the Buyers.

5.1 **Product Return**

Subject to paragraph 6 hereof or as otherwise agreed by the Seller the Buyer may not return the Product or any part or parts thereof after delivery has been effected. Any claim or claims for return of the Product or any Parts thereof must be made within 30 days of delivery of the Product to the Buyer.

6. **Warranty**

The Seller hereby warrants to the Buyer that the Product will be free from defects in materials and workmanship in normal use, service and operation for a period of twelve (12) months from the date of delivery effected by the Seller or one of its authorized Distributors to the Buyer.

The first year of the warranty period covers parts and labor. If any Paint Equipment fails during normal operation, use and service during the first year of the warranty period due to a defect in material or workmanship, Fluid Management will repair the defective Paint Equipment and replace any defective parts at no charge to the Customer. The warranty repairs and defective parts replacement will be carried out by Fluid Management or one of its Authorized Service Representatives. .

The above warranty and obligations are subject to the **WARRANTY CONDITIONS, EXCLUSIONS AND LIMITATIONS** and the **WARRANTY DISCLAIMERS AND LIABILITY LIMITATIONS** set forth below.

6.1 **WARRANTY CLAIMS**

Warranty claims must be asserted during the warranty period. While Paint Equipment is under warranty, no repair or part replacement should be undertaken without first contacting Fluid Management at 800-462-2466. To expedite the process, the model and serial numbers of the Paint Equipment should be available at the time of the call.

6.2 **WARRANTY CONDITIONS, EXCLUSIONS AND LIMITATIONS**

Fluid Management shall have no liability or obligation under its warranty in connection with any warranty claim asserted or any failure or malfunction occurring after the expiration of the warranty period.

As a condition to any warranty repair or part replacement, Fluid Management shall have the right to first inspect, test and evaluate the Paint Equipment and parts that are claimed to be defective.

Return of Paint Equipment and parts to Fluid Management requires a Return Goods Authorization (RGA) from Fluid Management, and the RGA number must be included with any returned Paint Equipment or part.

Customer shall be required to provide Fluid Management and its Authorized Service Representatives with all information that any of them may request concerning the maintenance, operation, use, service, failure or malfunction of Paint Equipment and parts that are claimed to be defective.

Fluid Management may use reconditioned parts for warranty repairs and parts replacement.

B - Standard Terms & Conditions of Sale (cont')

Warranty repairs and part replacement do not extend the warranty period for Paint Equipment and repaired Paint Equipment and replacement parts are warranted only for the remainder of the original warranty period.

Any repair or replacement requested as a warranty repair or replacement that is not covered by Fluid Management's warranty will be billed to Customer as non-warranty repair or replacement on a time and materials basis.

Fluid Management's warranty transfers to the new owner with transfer of ownership Paint Equipment. It is the responsibility of new owner to notify Fluid Management at 1-800-462-2466 of the transfer of ownership of Paint Equipment. Transfer of ownership does not extend the warranty period.

Fluid Management's warranty does not cover, extend or apply to, or include:

- Computer or computer-related equipment such as laptops, monitors and printers and other third-party equipment supplied with Paint Equipment (*In the case of computer and computer-related equipment such as laptops, monitors or printer, and other third-party equipment, any warranty is limited to a pass through to Customer of any warranty received from the equipment manufacture, and is subject to whatever terms, conditions and limitations are imposed by the equipment manufacturer*)
- Third-party software (*In the case of third-party software, any warranty is limited to a pass through to Customer of any warranty received from the software provider and is subject to whatever terms, conditions and limitations are imposed by the software provider*)
- Normal wear and tear
- Any Paint Equipment or part that fails or malfunctions due to any computer or computer-related equipment, other peripheral equipment, third-party software or software or equipment provided by Customer or a third party
- Any Paint Equipment or part failure or malfunction that Fluid Management or one of its Authorized Service Representatives determines to have been caused by or attributable to damage during or after shipment, colorant in the wrong canister, colorant related issues (e.g. beads in colorant, etc.), overfilling of canisters, improper operation or misuse, lack of daily maintenance, power surge, power outage, fire, flood, water leakage, accident, acts of god, casualty, or other similar causes
- Any Paint Equipment or part that Fluid Management or one of its Authorized Service Representatives determines was tampered with, disassembled, repaired, modified or altered by anyone other than Fluid Management or one of its Authorized Service Representatives without the prior written authorization of Fluid Management, used to mix or dispense material that the Paint Equipment was not designed to mix or dispense or otherwise used for a purpose or under conditions that differ from those for which the Paint Equipment was designed, or subjected to abnormal use or service, or has had its serial number removed or altered.
- Field repair, removal, reinstallation or other similar tasks not performed by Fluid Management or one of its Authorized Service Representatives
- Cabinets and structural frames
- Mistints or misfills

B - Standard Terms & Conditions of Sale (cont')

6.3 WARRANTY DISCLAIMERS AND LIABILITY LIMITATIONS

THE ABOVE WARRANTY IS THE SOLE AND EXCLUSIVE WARRANTY MADE BY FLUID MANAGEMENT WITH RESPECT TO EQUIPMENT, COMPONENTS OR PARTS AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ALL WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH OTHER WARRANTIES ARE EXPRESSLY EXCLUDED.

THE OBLIGATIONS, RIGHTS AND REMEDIES SET FORTH ABOVE ARE THE SOLE AND EXCLUSIVE OBLIGATIONS OF AND SOLE AND EXCLUSIVE RIGHTS AND REMEDIES AGAINST FLUID MANAGEMENT WITH RESPECT TO ANY ALLEGED DEFECT OR DEFICIENCY IN ANY EQUIPMENT, COMPONENTS OR PARTS.

UNDER NO CIRCUMSTANCES SHALL FLUID MANAGEMENT OR ANY OF ITS AUTHORIZED SERVICE REPRESENTATIVES HAVE (I) ANY LIABILITY FOR ANY CLAIM, LOSS, DAMAGE, INJURY, LIABILITY, OBLIGATION, COST OR EXPENSE THAT DIRECTLY OR INDIRECTLY RELATES TO OR ARISES OUT OF THE PERFORMANCE OF ANY SERVICES OR THE USE, FAILURE OR MALFUNCTION OF ANY EQUIPMENT, COMPONENT OR PART OR (II) ANY LIABILITY FOR INDIRECT, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF SALES, LOSS OF PROFITS, LOSS OF MATERIAL BEING DISPENSED, DOWN TIME, LOSS OF PRODUCTION, LOSS OF CONTRACTS, OR DAMAGE TO REPUTATION OR GOOD WILL, WHETHER OR NOT FLUID MANAGEMENT OR ANY OF ITS AUTHORIZED SERVICE REPRESENTATIVES WAS AWARE OF OR ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

IN ANY EVENT, FLUID MANAGEMENT'S TOTAL LIABILITY IN CONNECTION WITH ANY INDIVIDUAL ITEM OF EQUIPMENT SHALL LIMITED TO THE NET PRICE PAID TO FLUID MANAGEMENT FOR SUCH ITEM OF EQUIPMENT.

III SAFETY INSTRUCTIONS

A - General safety instructions



Attention! Before installing the equipment, please read this instruction manual carefully. This will increase your personal safety and prevent unnecessary damage to the machine.

The manufacturer accepts no liability if the instructions below are not followed:

1. If a machine has been damaged (during transport, for example), do not attempt to set it in operation. When in doubt, first contact either your supplier or the F&FM service department.
2. The equipment should be positioned and connected up in strict accordance with the installation instructions.
3. All local safety regulations and ordinances should be observed.
4. The machine may be connected only to a 230/240V/50/60Hz or 110V/50/60HZ earthed wall socket installed in accordance with the regulations.
5. Users should ensure that the machine is kept in good condition. Defective components should be replaced.
6. In order to prevent physical injury, the doors should be closed and the paneling fitted during normal use.
7. All service activities (other than routine maintenance and adjustments) may only be carried out by qualified technicians. Ensure that the mains lead is always kept unplugged while repairs are being carried out.

B - Specific warnings in this manual



Attention! MOVING PARTS CAN CAUSE INJURY. Always turn off power at the wall socket before accessing moving parts.

IV INSTALLATION

A - Unpacking the dispenser

The machine is packed in a box which will contain the following:

- 1 x Machine Base Assembly including turntable
- Canisters (as ordered), each with a lid, attached pump and fixing screws
- 1 x Operation Manual
- Power Supply cable.

A plastic bag or box containing:

- 1 x Allen Key for Pump Calibration (*Note: Pumps preset in factory*)
- 1 x No. 2 Phillips head screwdriver (*for attaching canisters*)

In case of floor stand models, a kit of parts is supplied in the same box to convert bench model to floor model. (Assembly instruction manual will be provided with the kit)

If any of these parts are missing, contact your supplier or F&FM immediately.



IV INSTALLATION

B - Installing the canisters

Please note that this procedure is used for all canister sizes, although only 1.75L (22X) canisters are shown here. Other canister assemblies will vary in size and appearance, however the procedure remains the same.



(1) Select a canister assembly.



(2) Fit the canister screws into the outer ring of keyhole slots on the turntable. Push firmly into position.



(3) Locate the 2 guide holes directly below each canister and fasten the screws (already located in canister) with a Philips (No. 2) screwdriver.
(4) Check canister is firmly secured.
(5) Repeat steps (2) to (4) for all other outer ring canister assemblies.



Attention! It is important that the canisters are assembled and installed correctly to ensure stability of the canisters on the turntable and correct functioning of the stirring mechanism.

V OPERATION

A - First time operation

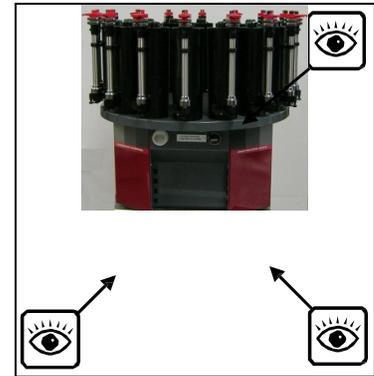
Step 1 Preparing the dispenser



Ensure that the machine is switched off at the wall socket



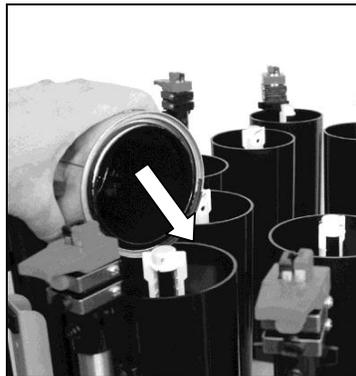
Stir each can of colorant thoroughly with a flat bottomed paddle or palette knife to reincorporate any settled pigment



Ensure that the machine is adequately supported and clear of obstructions



Remove the lids from all canisters



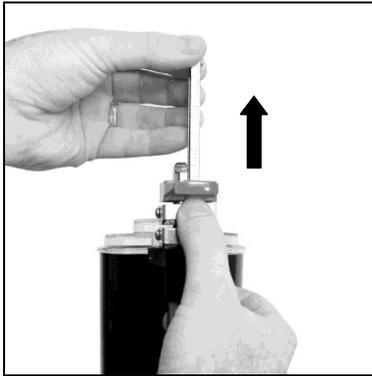
Pour the contents of each colorant can into the correct canister. Discard the colorant can and replace the canister lid



Attention! Always wear eye protection when handling colorants

V OPERATION

Step 2 Purging the pumps



Set the gauge or gauges of each pump to its halfway point by operating the spring loaded button then lifting the gauge by its handle

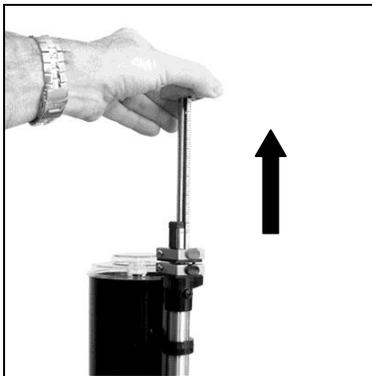


Without operating the valve lever lift the pump handle to its maximum travel (this draws the colorant into the canister)



Discharge the colorant back into the canister by depressing the pump handle fully. Repeat this process 30 times.

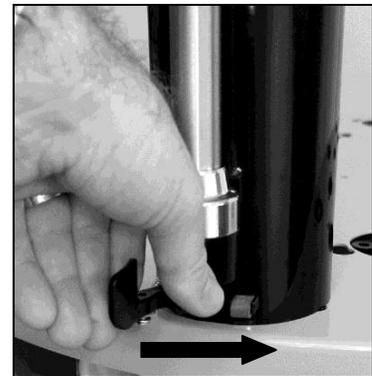
Step 3 Purging the valve



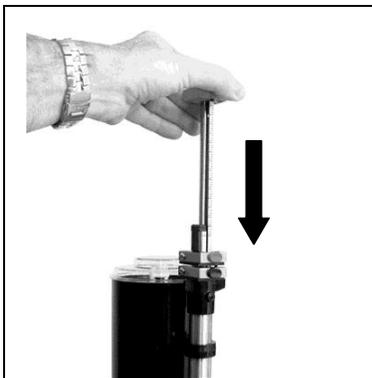
Lift the pump handle to its maximum travel



Place a can or paper cup under the dispensing nozzle



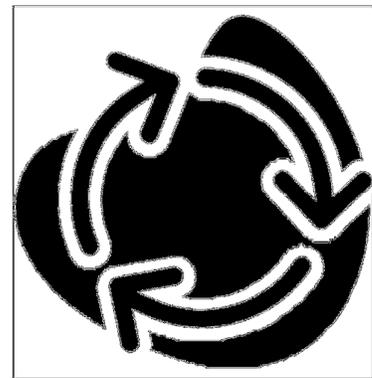
Hold the valve lever open by pulling the spring loaded lever forward its full travel



Push the pump handle down fully to dispense colorant into the cup



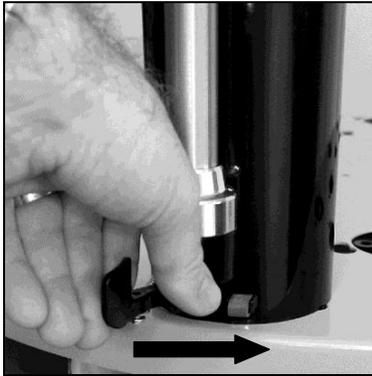
Release the valve lever



Repeat this process until the colorant emerges as an unbroken stream

V OPERATION

Step 4 Check the effectiveness of the purge



Open the valve lever **without operating the pump**. A small drop of colorant will appear at the nozzle

>



Release the valve lever slowly and the drop will withdraw into the nozzle

>

Repeat this process 10 times. If the drop of colorant at the nozzle grows appreciably with each opening of the valve lever and/or it drops from the nozzle into the cup, then air is still in the system and steps 2 & 3 should be repeated

Repeat this process for all canisters.



Attention! For dispensers fitted with electronic timers, it is important that the machine be switch on at all times **unless topping up canisters.**



Attention! For manual agitation type dispensers, it is good practice to agitate the colorant twice daily for four (4) minutes.

B - General use of the dispenser

Step 1 Select the color, base and can size

A Identify the color you wish to supply either by name or number

B Look up the tint formula and note the Tint Base required

C Identify the quantity required (can size)

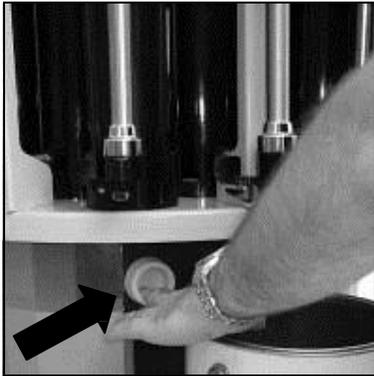
Step 2 Position the can

Picture not available

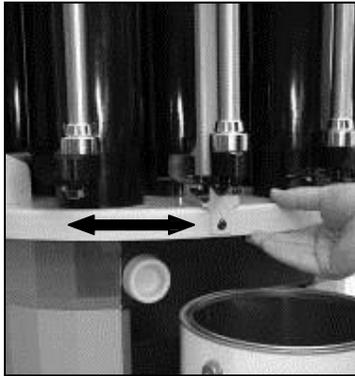
Place the can on the appropriate can shelf (if supplied) and adjust the height of the can shelf if necessary

V OPERATION

Step 3 Bring canister to the correct position



Depress and hold the detent lever to release the turntable. You can lock the detent lever in the release position by pushing it sideways.

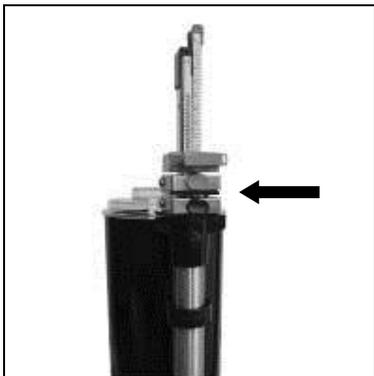


Rotate the turntable so that the pump of the appropriate canister is directly over the can. If the detent lever is released it will lock the canister into the correct position. You may need to move the turntable slightly from side to side to allow the locking pin to locate the locking hole.

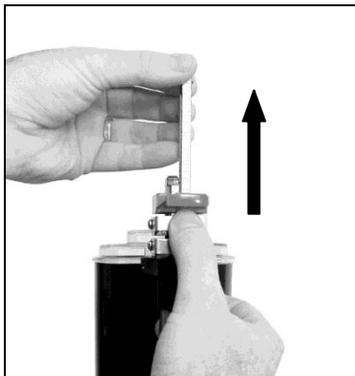


When rotating the turntable, **DO NOT** use the canisters or pumps as handles. Use the edge of the turntable.

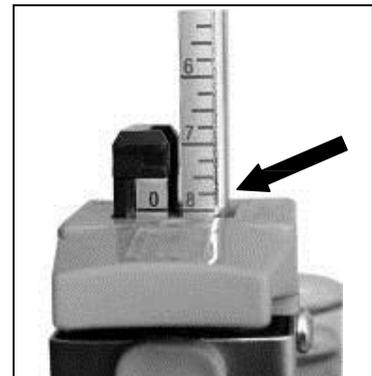
Step 4 Set the Gauges



According to the setting required, operate the spring loaded button to release the gauge. The red knob is for the red gauge and the black knob is for the black gauge



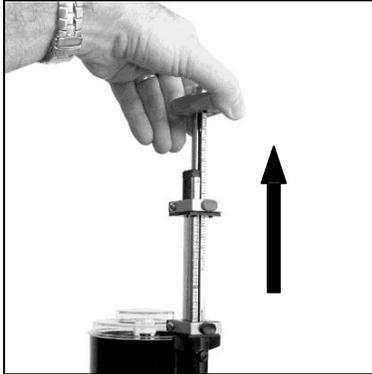
With the appropriate button operated, lift the gauge to the reading required.



The correct gauge setting is shown when the figure selected is fully exposed above the RED handle and the gauge release button clicks firmly into place.

V OPERATION

Step 5 Charge the pump



With the gauges correctly set, slowly and gently lift the red pump handle until both red and black handles are against the appropriate gauge knobs

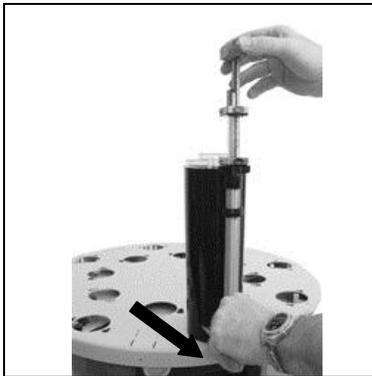


Continue to hold this for a few seconds to ensure the pump is correctly filled with colorant.

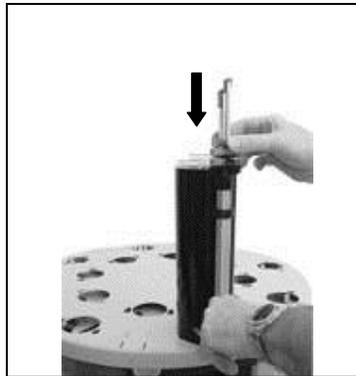


If the colorant level is too low, air can be sucked into the pump. If this occurs, return the handle to the zero position, add sufficient colorant, and purge the pumps and valve (see chapter IV, step 2 & 3)

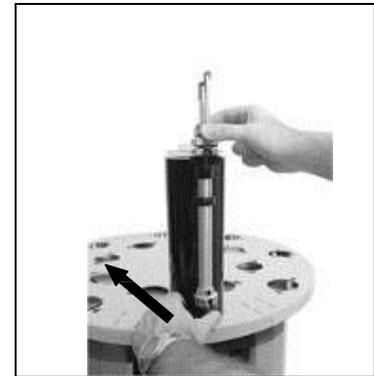
Step 6 Discharge the pump



While still holding the pump handle in the raised position, pull the spring-loaded valve lever (at the base of the pump) forward its full travel



Holding the valve lever fully forward, press the red handle down with a smooth and steady stroke until the red handle is fully depressed.



Ensure that both the red and black handles are fully depressed against the end cap. All the colorant has now be discharged and the valve lever can be released



Repeat the charging and discharging process for each colorant specified in the formula



If you have to tint more than one container of the same color, leave the gauges set at the required reading and simply recharge and discharge each pump in turn in the order nominated by the tint formula

VI PREVENTITIVE MAINTENANCE

A - Do's & Don'ts

DO Keep the machine clean and display advertising promoting good housekeeping.

DO Keep this operation manual, Allen key, valve sleeve wrench and spare parts in a convenient place to assist in regular maintenance

DON'T Use the piston or valve assembly of each pump as a handle to rotate the turntable. Instead, use the canister or edge of the turntable.

DON'T Attempt to replace the valve plate – if this is faulty, the whole valve assembly must be replaced

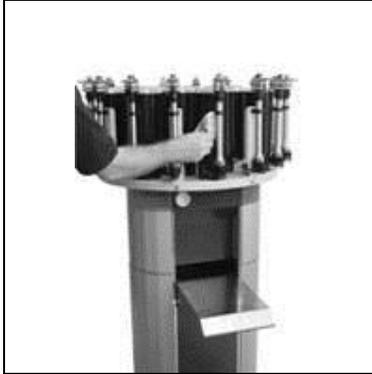
DON'T Make any adjustments to the stirring timer. This unit has been factory set and should only be adjusted by authorized personnel.

DON'T Don't use flammable cleaning fluids to clean or lubricate the machine unless it is a explosion proof model.

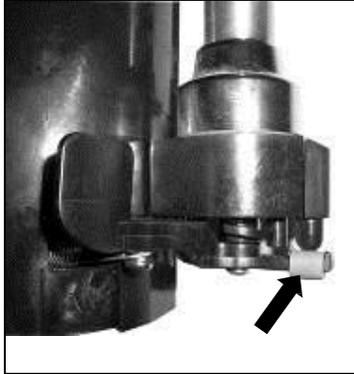
VI PREVENTITIVE MAINTENANCE

B - Daily maintenance

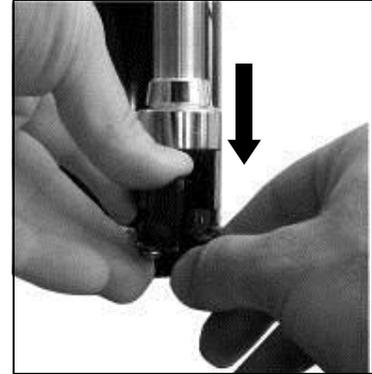
Clean the machine, refill canisters and check for blockages



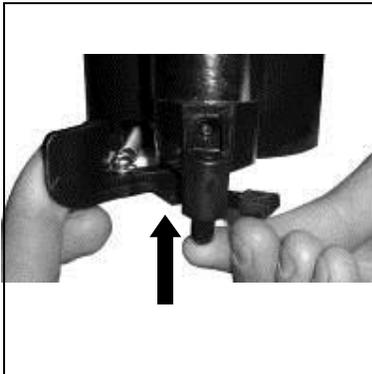
Wipe down stand, canisters and pumps with a moistened cloth



Check nozzle outlets for dried colorants.



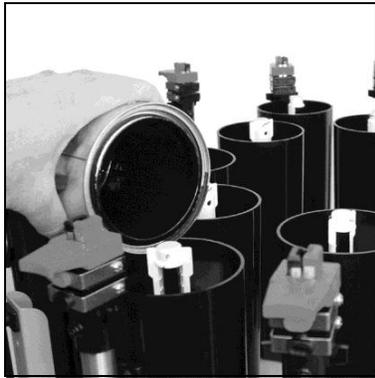
If dried colorant is found to be blocking the nozzle, open the valve to remove and replace the nozzle. Ensure the o-ring is retained. Clean the nozzle using warm soapy water



Refit the nozzle and dispense a small amount of colorant

VI PREVENTITIVE MAINTENANCE

If the dispenser is not used on a regular daily basis, the following procedure should be carried out.



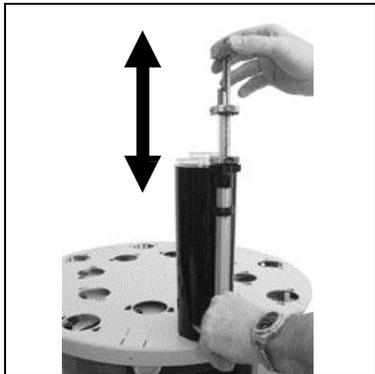
Check the level of colorant and top up if required



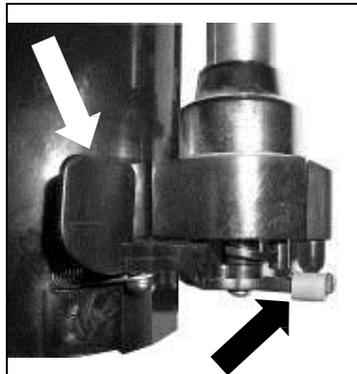
Ensure that power is connected to the dispenser and turned on so that stirring occurs



Open and close each pump valve 5 times



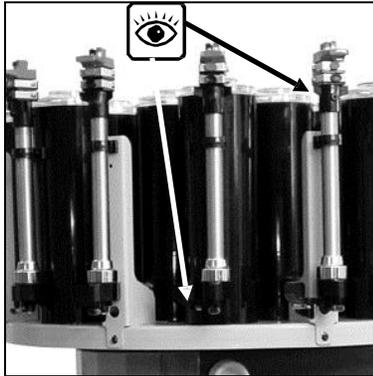
Purge the pumps (see chapter IV, step 2 & 3) however only operate the pump 5 times



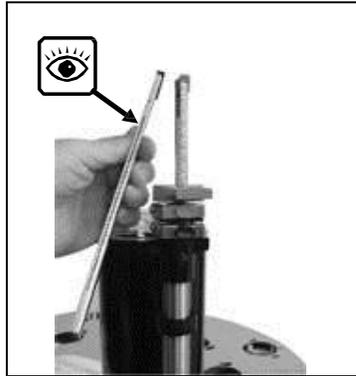
Check the valve levers and nozzle wiper arms for possible damage.

VI PREVENTITVE MAINTENANCE

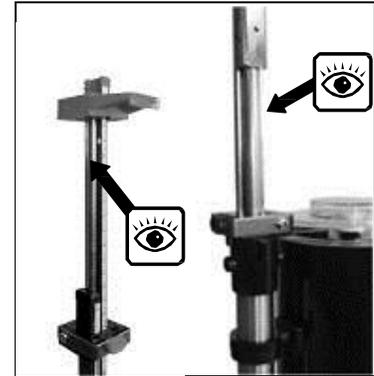
C - Weekly maintenance



Examine the machine for loose canisters and loose cylinder caps. Tighten if necessary



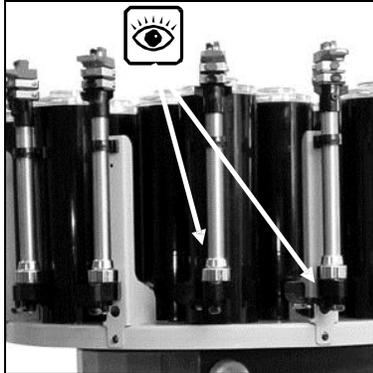
Examine gauges for damaged graduated scales or worn holes and replace if necessary



Raise the pump handle to its maximum extension and examine the pump shafts for signs of colorant. This indicates that the piston seal will need replacement (see Chapter VI - E,F,G)

D - Periodic maintenance

This maintenance should be carried out every 3 to 6 months depending upon use.



Inspect the function of the valve and the canister for leaks

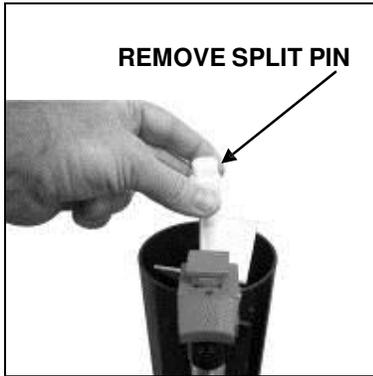


Ensure that the machine is disconnected from the power source



Remove canister from turntable and drain colorant into a clean container

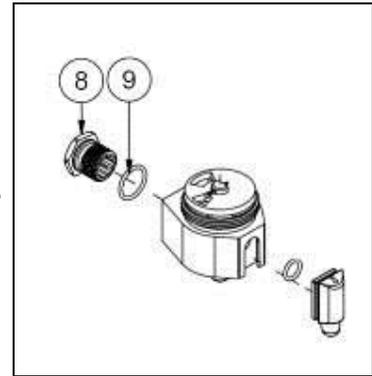
VI PREVENTITIVE MAINTENANCE



Remove stirrer paddle from canister and wash the canister, lid and stirrer paddle clean



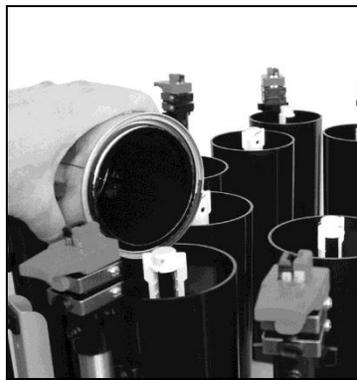
If required, tighten or replace valve insert sleeve (with the wrench supplied). Take care not to over tighten or sleeve with crack.



Replace "O" ring seal – item 9



Reassemble and refit canister to turntable



Return colorant to dispenser and prepare the pump for operation (see chapter IV - A)



Attention! MOVING PARTS CAN CAUSE INJURY. Always turn off power before accessing moving parts.

(8) Using a sharp knife or blade cut any excess metal off the end of the gauge that may overlap the black plastic handle.

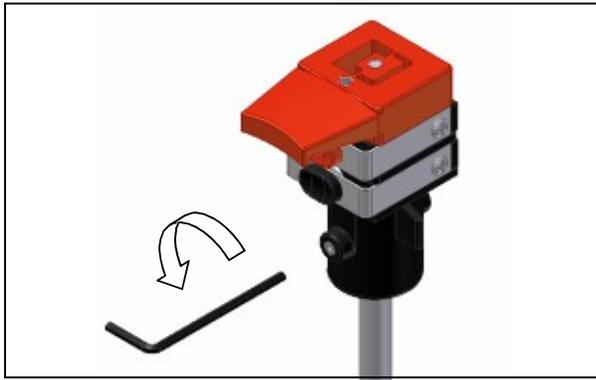
(9) Refit the gauge to the plunger. Repeat steps (4) through (9) for the inner (red) gauge metal.

VII GENERAL MAINTENANCE

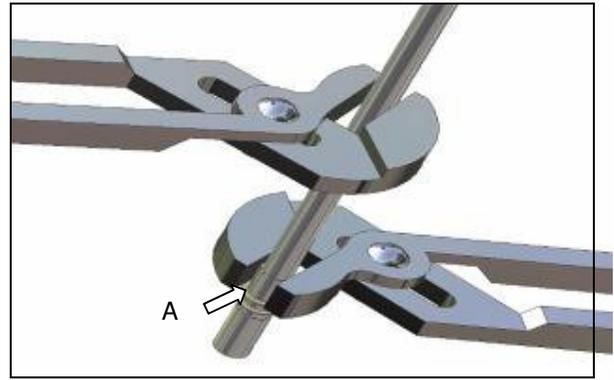
A - Replacement of Piston Seals

Models 22 CW

Step 1 Replacement of the inner piston



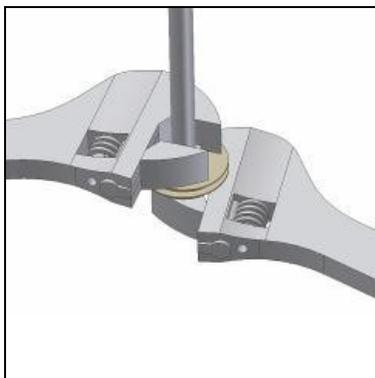
(1) Loosen both grub screws in the cylinder of the end cap (use Allen key provided) and remove the plunger assembly from the cylinder. Remove the gauges from the plunger assembly, then withdraw the inner plunger assembly from the hollow outer plunger shaft. Clean all colourant from both plunger assemblies.



(2) Using two pairs of pliers, grip the inner end of the piston (A) with one and the piston shaft with the other. Unscrew the piston (using a little heat if difficult) and discard.

(3) Apply Loctite 262 to the internal thread of the piston shaft, then screw the new piston assembly in fully. Slide sleeve up onto the shaft, tighten the piston with pliers and replace the sleeve over the piston.

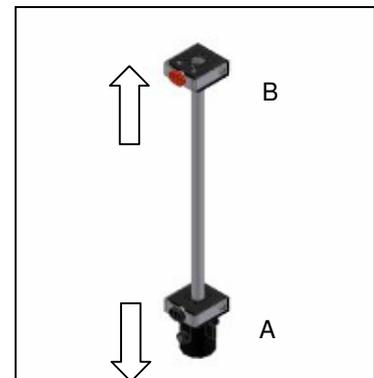
Step 2 Replacement of the outer piston



(1) Using two spanners, carefully undo the lower piston nut. Discard the piston but retain the nut.



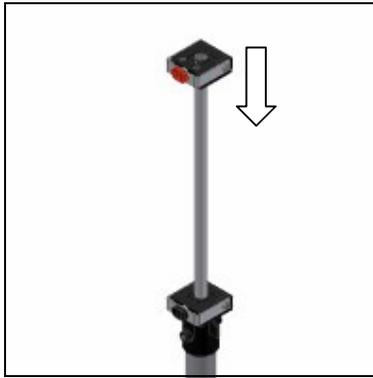
(2) Remove the new piston from retainer and fit to the shaft curved end face up (see picture). Replace the front nut using a small drop of Loctite 262 on thread. Tighten the nut only until the piston can no longer be rotated by hand.



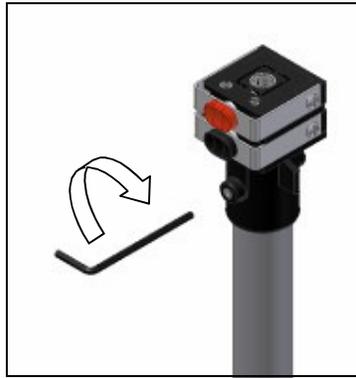
(3) Holding the end cap (A) in one hand, pull the outer pump handle (B) until the piston is fully withdrawn inside the end cap.

VII GENERAL MAINTENANCE

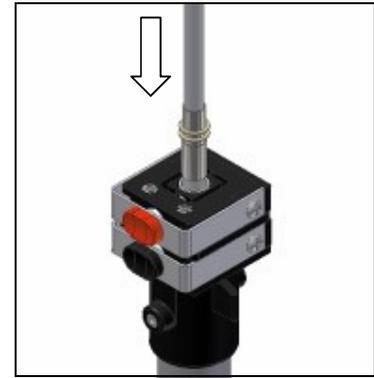
Step 3 Returning plungers into cylinders



(1) After lightly oiling the top inside edge of the cylinder, position the plunger assembly on the cylinder with one hand. With the palm of the other hand, firmly push the plunger down fully.



(2) Tighten end cap assembly onto cylinder assembly using Allen key.



(3) Remove the sleeve from the inner piston and discard. Lightly oil the inside edge of the hollow outer piston shaft and then gently ease the piston inside. Refit the gauges.

VII GENERAL MAINTENANCE

B - Pump Calibration

Models 22 CW

Recalibration of the pump is necessary if the original gauge has been replaced by another (for any reason) or if the gauge scale detail (metalcal) is to be replaced. When recalibrating the pump, please leave the pump/canister fixed in place on the machine.

Tools required:

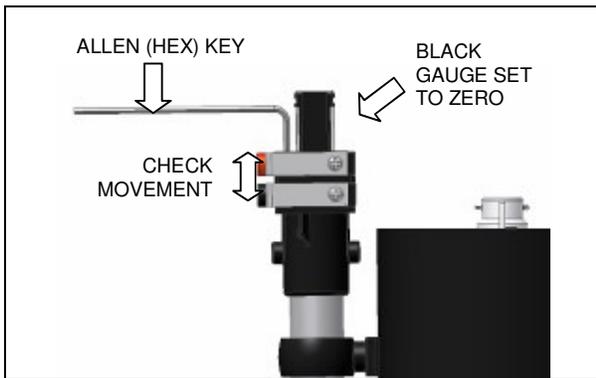
- 1 x Allen (hex) key 3/32" A/F (originally supplied with the machine)



(1) To calibrate the outer plunger, remove the inner (red) gauge and inner (red) plunger and set the outer (black) gauge to the zero position.



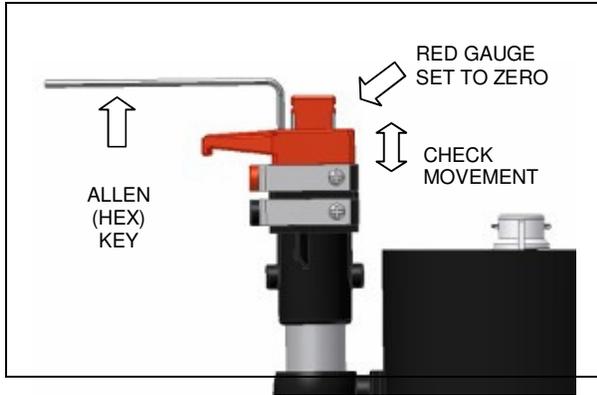
(2) Using the Allen key, undo both calibration grubscrews until free movement can be felt between the outer (black) plunger handle and the outer (black) gauge knob.



(3) Carefully wind one grubscrew down until only slight movement is felt between the outer pump handle and the gauge knob. Then wind the other grubscrew down until no free movement can be felt, **being careful not to over-adjust**.



(4) To calibrate the inner (red) plunger, refit the inner (red) gauge and plunger removed in step (1). Set the inner (red) gauge to zero.



(5) Using the Allen key, undo the calibration grubscrew in the red pump handle until free movement can be felt in the handle. Carefully wind the grubscrew back down until no free movement can be felt between the red pump handle and the red gauge knob. **Be careful not to over-adjust.**



(6) The pump is now calibrated.

III TROUBLESHOOTING

A - Introduction

Before calling your machine supplier or Service Department, please check whether you can solve the problem yourself. If you cannot, then call the Service Department for advice. Have the model number and serial number at hand (these can be found on the sticker attached to service door at the side of the machine).



Attention! MOVING PARTS CAN CAUSE INJURY. Always turn off power before accessing moving parts.

B - Problem solving

Symptom	Cause	Action
Colorant intermittently spurts from the nozzle during discharge	> Air bubbles in the colorant	> Operate the pump several times without opening the valve to drive the air back into the canister. Then allow the colorant to sit for several minutes to allow the bubbles to escape.
A drop of colorant falls from the nozzle when the valve is opened even when the pump is not operated	> Air is trapped in the cylinder assembly	> Operate the pump several times without opening the valve to drive the air back into the canister. Then allow the colorant to sit for several minutes to allow the bubbles to escape.
The end cap twists or lifts during operation	> End-cap grub-screws are loose	> Lightly tighten the 2 grub-screws in the end-cap (for 53 XB/XD/XE tighten the end-cap sleeve) until the end cap can no longer be twisted by hand.
Canister is loose on turntable	> Loose fixing screws	> Tighten fixing screws with a philipps head screwdriver
Colorant appears on the piston shaft, piston and/or gauges	> Worn seals	> Replace seals – refer to pages 33 to 36
Colorant does not dispense easily	> Nozzle blocked	> Remove nozzle and clean in warm soapy water
Colorant still does not dispense easily	> High viscosity of colorant	> Increase the size of the nozzle
Colorant has hardened in the canister and piston assembly	>	> Canister and pump should be removed, emptied, stripped and cleaned thoroughly. Replenish only with new colorant
Agitation is not occurring	> No power to the dispenser	> Check that the unit is connected and that there is power to the outlet

IX SERVICE and SUPPORT

A - Service and Support Information

For all service and repairs on Fast & Fluid Management products (including all warranty repairs), call your local Fast & Fluid Management Agent or Supplier.

Within Australia you can call the Fast & Fluid Management Service:

Free toll line: 1800 648584

Fax Number: 02 42717306

Or email on: FAU_Service@idexcorp.com

Within the United States, Canada & Latin America, you can call Fluid Management Customer Service:

Free toll line: 1-800-462-2466

Fax Number: 1-847-537-3221

Or email: info.fluid@idexcorp.com

International Customers:

Phone Number: +61 2 4223 7460

Fax Number: +61 2 4271 7306

Or email on: FAU_Support@idexcorp.com

For more information, please visit our website www.fast-fluid.com or www.fluidman.com.

Please make sure that you have the model number and serial number to hand. They can be found on the nameplate on the machine.

X SPECIFICATIONS

A - Specifications

Number of canisters	Up to 16
Canister sizes	1.75L Single canisters
canister/stirrer material)	molded 100% Acetal
Valves	molded 100% Acetal
Pump type	piston pump
Pump size Inner	¼ ounce (22CW)
Pump size Outer	2 ounce (22CW)
Min. dispensing	1/384 fl.oz
Stirring timer	Adjustable clockworks timer
Moveable upper can shelf	Optional on floor model A kit of parts is supplied as an optional extra to convert Bench model to floor model. (assembly instruction manual provided separately)
Power supply	110V 50Hz/60Hz 230/240V 50Hz/60Hz

Specifications subject to change without prior notice.