



Queensland Urban Utilities

SP302 - Progress Road Pump Station

Operation & Maintenance Manual

Contract Number BW50080-04/05

Manuals Cover Pages

Created 12/09/2006

PROGRESS RD WACOL SPS SP302 MANUALS – STRUCTURE AND GENERAL TOC

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¹ VSD = Variable Speed Drive

J & P Richardson Industries Pty Ltd

8.0 WELL WASHER

McBerns AutoWellWasher™

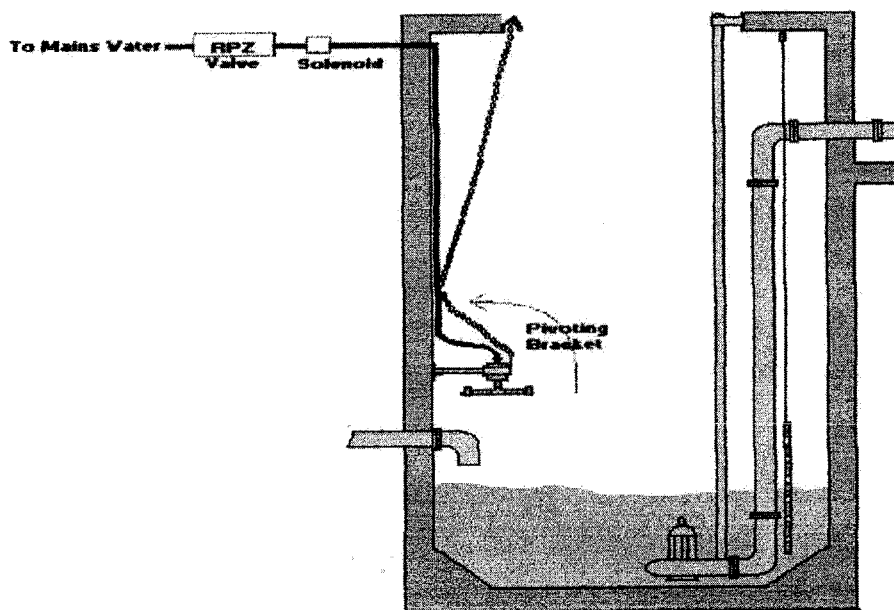
(Australian Patent No. 655111)

(International Patent Appl.No.PCT/AU00/00084)

INSTALLATION INSTRUCTIONS for WALL MOUNT BRACKET

Positioning of the device in the well can be critical to the effectiveness of the wash system. Configuration of wells can differ but, in general the Washer should be positioned in the clearest available space to ensure the rotating arms do not come in contact with guide rails, chains, probes, etc.

The mounting bracket is designed to pivot back against the wall (see Figure 1) so as



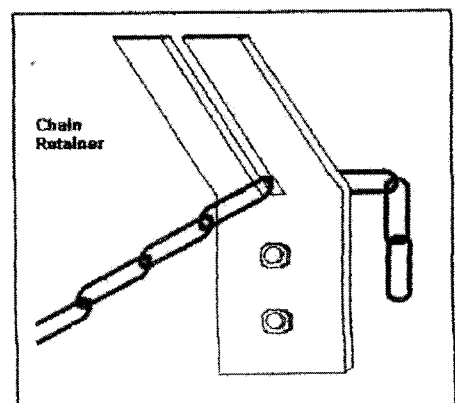
not to impede access when a pump needs to be removed.

Having chosen the position, the mounting bracket is secured to the wall by means of four 12mm stainless steel Dynabolts™. The bolt holes should be drilled approximately 1 metre above the normal high water line.

If you need to use the bracket extension piece it should now be attached. The extension piece is not needed in all wells depending on diameter and internal configuration. If not used, save it for later installations when multiple extensions may be useful.

Once the bracket is secured, the Washer head is inserted in the semi-circular clamp and the two locknuts tightened.

Now attach the pivot chain to the lug near the Washer head and pass the chain through the "eye" nut which should be installed in the wall approx. 1 metre above the Washer. The chain then attaches to the chain retainer which is fixed to the lip of the well opening.



Now the water supply can be connected to the Washer head. You can use good quality 3/4" hose (not garden hose), poly, PVC, copper or whatever best suits your requirements. From our experience the hose method is easiest, as it can be simply dropped down the wall and secured out of harms way using electrical ties.

The next step is to set the rotation speed by adjusting the spray buckets. By loosening the bolt which passes through each bucket, the nozzle housing can rotate through 360 degrees (see Figure 2). The nozzles need to be pointing in opposite directions to cause the spray arms to rotate. Speed of rotation is affected by the angle at which the nozzles are set (Figure 3). Best results are obtained with slow rotation, but care must be taken to allow for drops in water pressure at times of peak water usage in the locality. A temporary drop in water pressure can cause the Washer to stop turning if the initial speed is set too low.

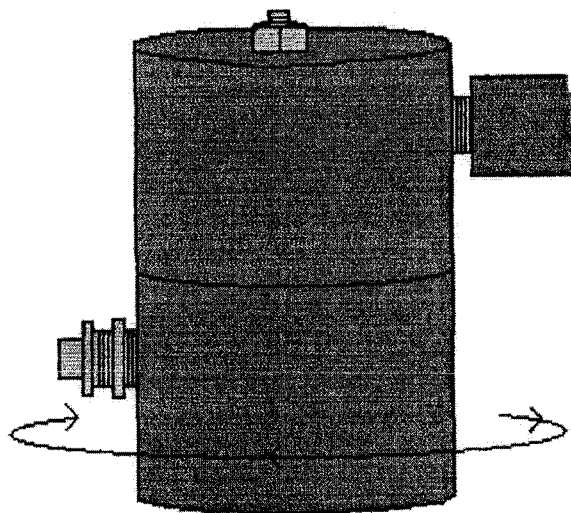


FIGURE 2

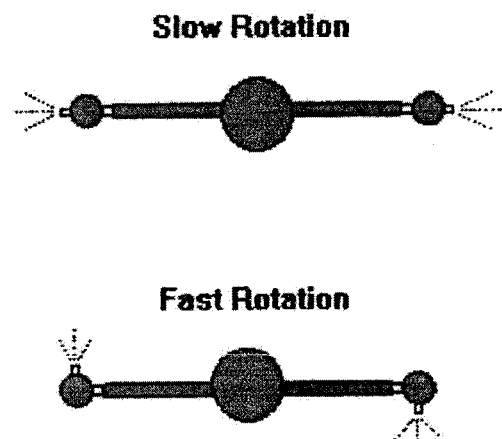


FIGURE 3

Now by twisting the nozzle buckets on the nipples which join them to the spray arms, the nozzles can be directed to wash the desired areas (Figure 4). Each nozzle gives a wide fan of spray. Usually, one would be directed to cover the well wall from high to low water line. The other can be directed at a sharper angle to

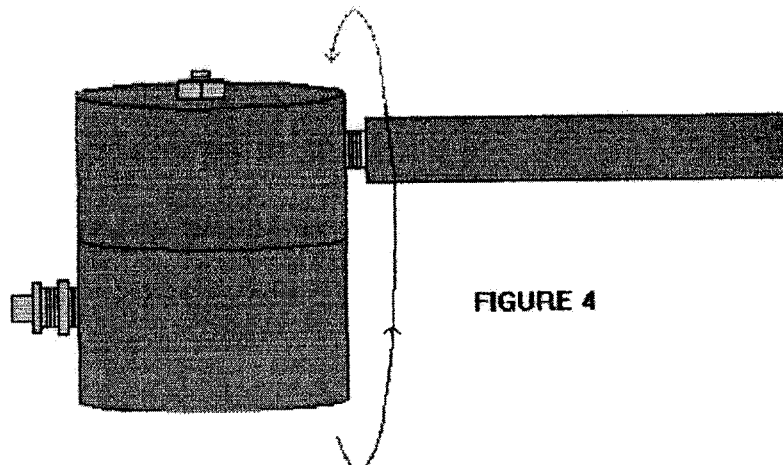


FIGURE 4

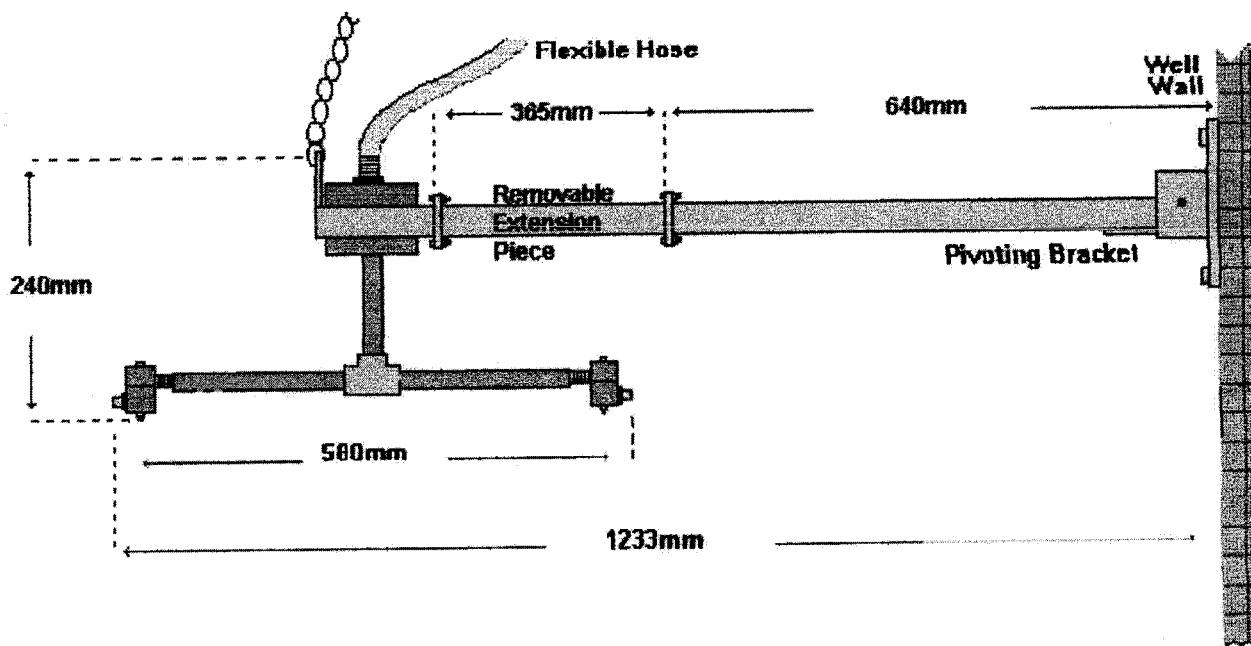
hit the top of the pumps, probe/float switches, guide rails etc.
 The last task while in the well is to double check that all nuts have been tightened.
 Above ground you should have already installed an approved back-flow prevention device to the water supply line. Australian Standard specifies a Reduced Pressure Zone (RPZ) valve, and we recommend a 25mm model. Between this and the Washer a solenoid valve should be fitted in the water line. This solenoid is wired to the sewage pump control board so as to open when the pump turns on, and close when the pump stops. Thus the Washer operates as the well is being emptied

THE WELL WASHER KIT CONTAINS:

Rotating Washer Assembly	4 x 12mm SS Dynabolts
Pivoting Mounting Bracket	5 metres SS Chain
Installation Instructions	"Eye" nut & SS Dynabolt
Chain Retainer with 2 SS Dynabolts	

TO INSTALL YOU NEED TO PROCURE:

Back flow prevention device. (Brand is your choice but we recommend 25mm size.)
 24volt AC Solenoid. (Brand and type is best chosen by your Electrician).
 Water conduit and connectors (water inlet for Washer head is 3/4" BSP male).



Please note the dimensions above are a guide only. Slight variations may occur.

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McBerns Auto WellWasher Recommended Spare Parts List

Quantity	Description	Item Code
1	Head & Bearing Assembly	WW1001
1	Nozzle & Bucket Assembly	WW1007
1	Spray Arm	WW1008