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# Mounting Instruction 5" Insert Still-pipe, 5900 Array Antenna

## 1. Introduction

This instruction describes the installation of a Ø139 mm (5 ") insertion pipe into a 8-inch Still pipe with a Still-Pipe Gauge Rosemount 5900 system.

For more information see drawing 9240 041-930.

After mounting the insertion pipe according to these instructions, see Rosemount 5900 Reference Manual.

## 2. Included parts

Adapter 5" / 8",	9150076-515
Ø139 mm (5 ") Pipe Extension, length 3m,	9150 076-065
Ø139 mm (5 ") Pipe Bottom, length 3m,	9150 076-066
Coupling pipe,	9150 076-060
Bracket pipe,	9150 076-061
Ø5 mm (3/16 in) Stainless steel Rivet	(customer supply)
Rope, length > 40m (130 ft)	(customer supply)
Wire	(customer supply)

Please refer to the mechanical installation drawings for more information on the installation requirements.

## 3. Safety

The installation is often performed in areas where flammable materials are handled or in an explosive atmosphere. Follow the local safety regulations.

Use only tools manufactured for hazardous areas.

See Rosemount 5900 Reference Manual for further information on safety issues regarding the Rosemount 5900 tank gauging system.

ISSUED BY TP-AJ	WEEK 0514	DOC. TYPE 2	PRODUCT CODE 5900	TITLE <b>Mounting Instruction 5" Still-pipe 3950 Array Antenna</b>			
APPROVED TP	WEEK 0514	FILE		DOC NO.	ISSUE	PAGE	
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## 4. Preparations

Before the installation start, following preparations must be made:

- If possible check that the still pipe is empty and remove any obstructive objects.
- Make sure the still pipe is vertical within  $0.3^\circ$  (0.1 m over 20 m).
- Arrange for a fixed point, for example a crane or a tripod, approximately 3.5 meters (10 ft) above the still pipe nozzle. Attach a tackle to facilitate lowering the insertion pipes into the still pipe.

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**Note!** The total weight of the pipes will be 75-150 kg depending on how many pipes used. Each pipe weighs approximately 25 kg.

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- Measure the height of the still pipe. Add 200 mm (~8") and cut the top pipe to a proper length.
- Mark a centre line along all insertion pipes to make it possible to vertically align the pipes.



Figure 1. Bottom pipe with Wire ring and Bottom pipe legs

- Slip a wire through the wire ring on the lower part of the bottom pipe. The wire is used for inserting the temperature sensors into the still pipe.
- Hang the middle of a rope with a length extending 40 meter (130 ft) between the legs on the bottom pipe. Do not attach the rope to any of the legs.

## 5. Installation

1. Lower the bottom pipe slowly with the rope in the still pipe until the end of the pipe almost reaches the tank nozzle edge.
2. Secure the pipe with e.g a reinforcement bar using the holes in the insertion pipe. Let the bar and the pipe rest on the nozzle edge.
3. Mount the pipe coupling with the joint aligned to the centre line on the pipe and tighten it slightly on the bottom pipe. Mount the pipe bracket on one bar (outside) on the pipe coupling using two of the M8 screws and nuts. See fig 2

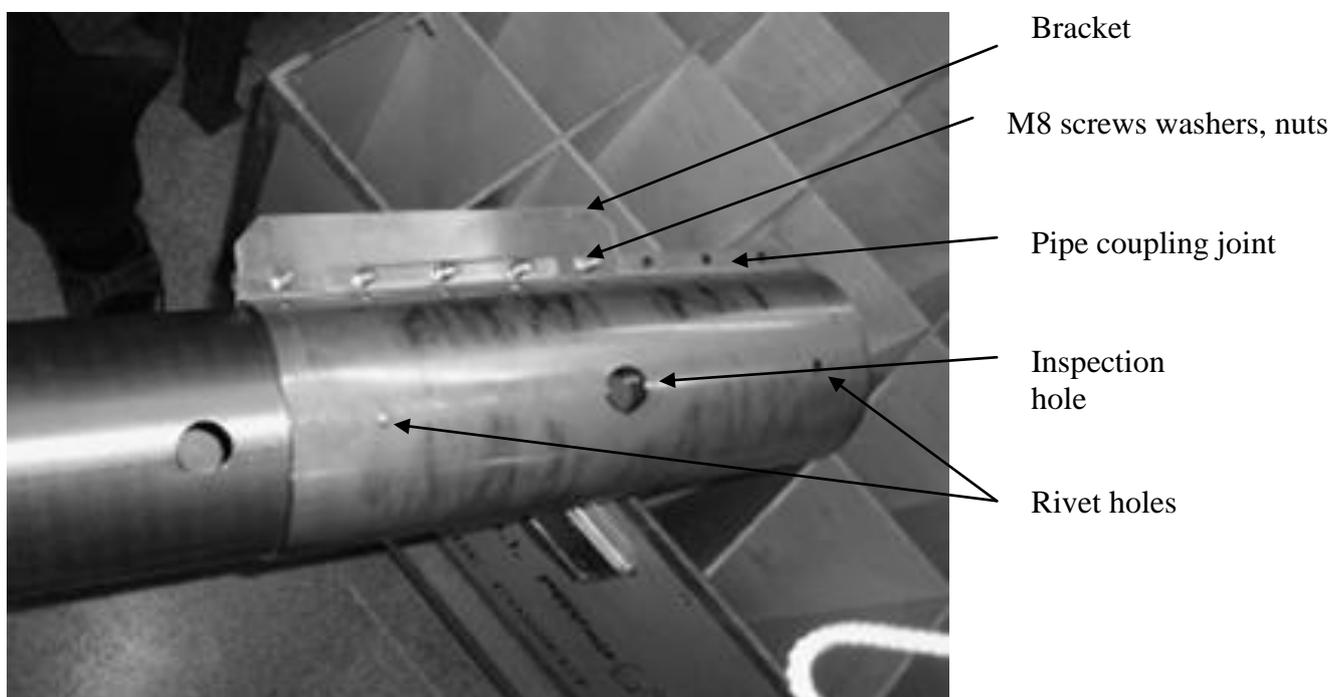


Figure 2

4. Lift the next insertion pipe and place it on top of the bottom pipe. Align the centre line on the pipe with the pipe coupling joint.
5. Check the vertical alignment in the inspection holes on the pipe coupling and make sure there is NO GAP between the pipes.
6. Tighten the eight M8 screws and nuts on the pipe coupling.
7. Drill two  $\text{\O}5$  mm (3/16 in) holes through each side of the pipe where the rivet holes are located on the pipe coupling. It is recommended to use a hand drill. Put a  $\text{\O}5$  mm (3/16 in) stainless steel rivet in each hole to fix the joint.

8. Lower the pipes slowly and repeat the procedure for the rest of the insertion pipes as above. Make sure that the pipe joints are aligned along the center line on the pipes.
9. Mount and lower the pipes slowly until the bottom pipe is standing on the bottom of the tank. Remove the rope. Use the wire to pull the temperature gauge to its position. The top pipe end should now be 200 mm (~8") over the tank flange
10. Mount the 5" / 8" Adapter, the marking on the (5" / 8" Adapter) 8" flange shall be in line with the pipe coupling joints, fig 3.

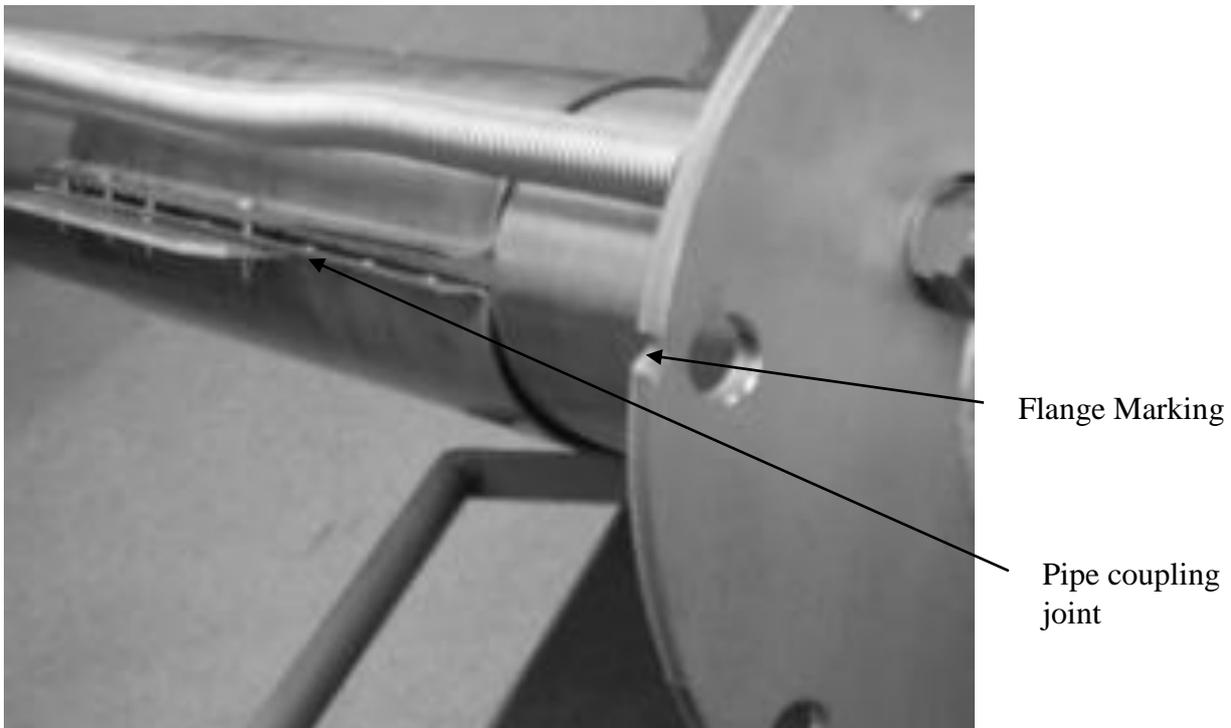
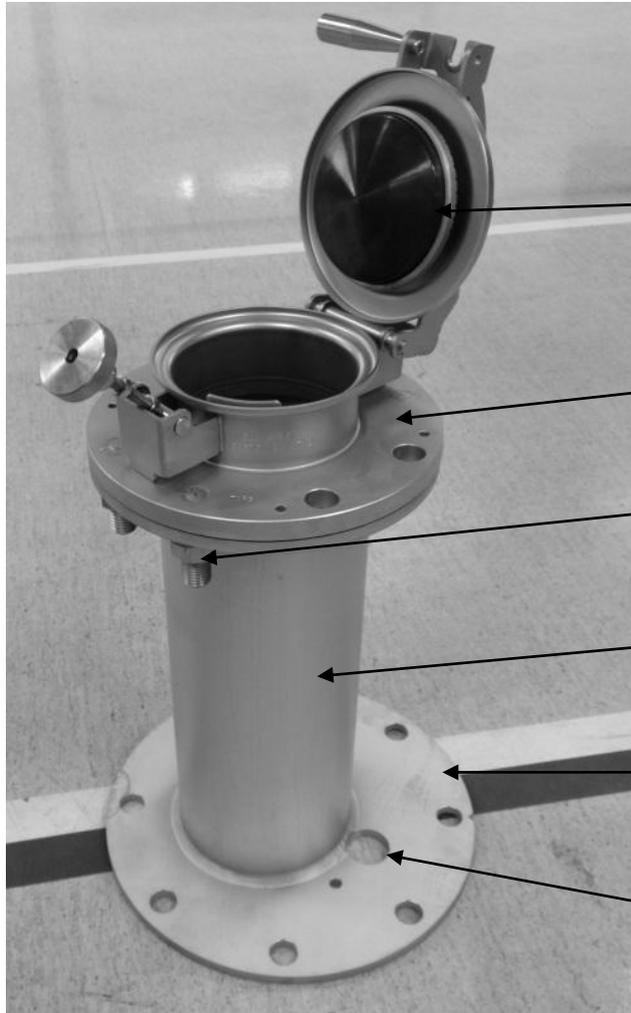


Figure 3

11. Mount the 5" Still Pipe Array Antenna on top of the 5" / 8" Adapter following the Raptor 5900 Installation Manual



5" Array Antenna

Fast opening Cover

M20 Bolts

5" / 8" Adapter

8" Flange

Mounting pos. for temp sensor