

**To:** Daniel Ultrasonic Customers  
Worldwide Sales Team  
Worldwide Service Team

**Date:** 06-09-06

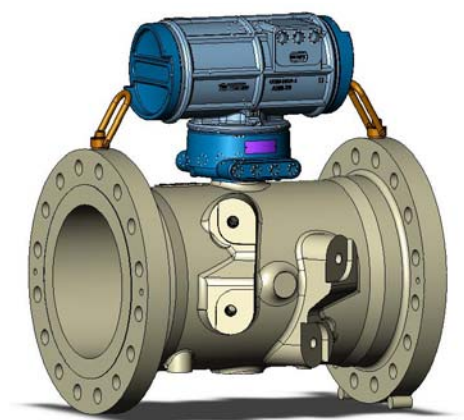
**From:** Keith Krebs, Ultrasonic Marketing Manager

**Subject:** Gas Ultrasonic Product Enhancement – Hoist Rings

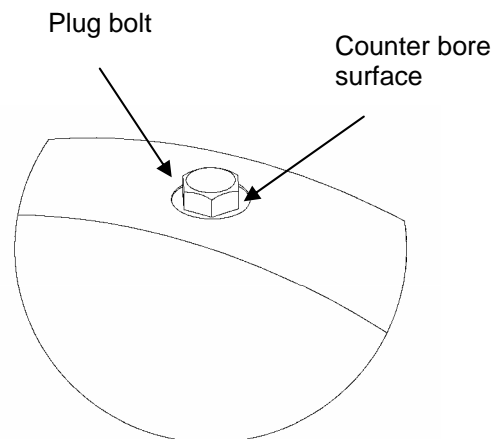
**Bulletin #:** DAN-GUSM-060906

As a leader in the fiscal flow measurement market, Daniel designs its products to be used safely. This is true of the way Daniel's products operate, as well as how they are handled. As a result, Daniel is implementing a product enhancement to its line of gas ultrasonic meters that improves the safety of how the meters are lifted.

Effective July 1, 2006, and starting with serial number 06-270001 all gas ultrasonic meters will be shipped with mounting holes for Safety Engineered Swivel Hoist Rings rather than eye bolts. Daniel SeniorSonic™ and JuniorSonic™ ultrasonic meters will come equipped with two tapped holes for attaching a pair of hoist rings for safe lifting. A hole with a counter bore will be drilled at the top and center of each meter flange and delivered with plug bolts to prevent corrosion and build up. (See Figures 1 & 2).



**Figure 1: Example of a 12" meter body with hoist rings**



**Figure 2: – Meter End Flange with Tapped Hole with counter bore for Hoist Ring**

This product enhancement promotes a better and safer process for lifting the meter.

The hoist rings are standard off the shelf parts and may be purchased either from Daniel or from a hoist ring supplier. The following table shows the part numbers and

prices of the Daniel hoist rings and the comparable hoist ring manufacturers' part numbers.

Daniel Part Number*	Daniel List Price (Each)	Hoist Ring Thread Size & Load rating	American Drill Bushing Co. P/N*	Carr Lane Manufacturing Co. P/N*
1-504-90-091	\$ 100	3/8"-16UNC, 1000 lb.	23053	CL-1000-SHR-1
1-504-90-092	\$ 122	1/2"-13UNC, 2500 lb	23301	CL-23301-SHR-1
1-504-90-093	\$ 124	3/4"-10UNC, 5000 lb.	23007	CL-5000-SHR-1
1-504-90-094	\$ 252	1"-8UNC, 10000 lb.	23105	CL-10000-SHR-1
1-504-90-095	\$ 547	1-1/2"-6UNC, 24000 lb.	23202	CL-24000-SHR-1

\* The part numbers include only one hoist ring. Two hoist rings are required per meter.

Hoist rings of varying sizes are required for the varying line sizes of the Daniel gas ultrasonic meter line. Appendix A included in this announcement details the hoist rings required for a given line size and ANSI rating.

### Note for customers lifting existing meters with threaded eyebolts:

Existing Daniel ultrasonic meters designed for threaded eyebolts may still be safely lifted with threaded eyebolts, if the following conditions are met:

- They have been inspected and show no signs of corrosion, scarring, or damage (including bending)
- They have not been left in the meter after installation and exposed to the environment
- A spread bar is used during lifting to eliminate angular loading

If any of the conditions described above can not be met, the operator must remove, destroy, and discard the "Eye Bolt" immediately and use slings around the meter body. For complete lifting instructions and recommendations, please refer to Section 3.1 of Daniel Ultrasonic Gas Flowmeter Reference, Installation, and Operations Manual (p/n 3-9000-740 for Mark II Electronics or 3-9000-743 for Mark III Electronics).

As always, Daniel drives to be the undisputed global leader in delivering highly valued oil and gas fiscal measurement solutions and services to our customers. This product enhancement shows Daniel's commitment to quality and the safe operation of customer solutions. Please contact me with any questions regarding this product enhancement at 713-827-3353.

## Appendix A: Gas Ultrasonic Hoist Ring Requirements by Line Size and ANSI Rating

To determine the size of the hoist rings required for your meter, use the appropriate table below. Look down the column that matches the ANSI rating of your meter. Find the row that contains your meter size. Follow the row to the end to find the appropriate hoist ring part number. Each part number includes one hoist ring. Please note that two hoist rings are required to lift the meter.

<b>Hoist Ring Lookup Table for Daniel Gas SeniorSonic Meters*</b>				
<b>ANSI 300</b>	<b>ANSI 600</b>	<b>ANSI 900</b>	<b>ANSI 1500</b>	<b>Daniel Part Number</b>
4" to 10"	4" to 8"	4" to 8"	4" to 6"	<b>1-504-90-091</b>
12" to 18"	10" to 16"	10" to 12"	8" to 10"	<b>1-504-90-092</b>
20" to 24"	18" to 20"	16" to 20"	12"	<b>1-504-90-093</b>
30" to 36"	24" to 30"	24"	16" to 20"	<b>1-504-90-094</b>
	36"	30" to 36"	24" to 36"	<b>1-504-90-095</b>

\*Note: 4" to 6" are 45 degree meters and 8" to 36" are 60 degree meters

<b>Hoist Ring Lookup Table for Daniel Gas JuniorSonic Meters</b>				
<b>ANSI 300</b>	<b>ANSI 600</b>	<b>ANSI 900</b>	<b>ANSI 1500</b>	<b>Daniel Part Number</b>
4" to 12"	4" to 8"	4" to 8"	4" to 6"	<b>1-504-90-091</b>
16" to 18"	10" to 16"	10" to 12"	8" to 10"	<b>1-504-90-092</b>
20" to 30"	18" to 20"	16" to 20"	12"	<b>1-504-90-093</b>
36"	24" to 30"	24"	16" to 20"	<b>1-504-90-094</b>
	36"	30" to 36"	24" to 36"	<b>1-504-90-095</b>