

CONTROLLED
DOCUMENT



**ROCHESTER
GAUGES, INC.**

8500 Series Gauge Installation (Black Plastic 4 Bolt Gauge)

ISO 9001:2008 CERTIFIED

**MS-530
(Mounting
Standard)**

READ COMPLETELY BEFORE ATTEMPTING INSTALLATION*

WARNING: Improper installation or use of this product may cause serious injury or property damage.

These instructions are prepared to assist tradesmen and others generally familiar with liquid storage tank equipment. Most consumers are not qualified to perform the installation described below. If you have any questions concerning installation or operation of the sender or gauge, contact Rochester Gauges, Inc. or one of our authorized distributors for assistance.

TOP MOUNTED SENDERS

Install sender or gauge using 0015-00004 Buna'N gasket. Use 1/4 - 28 UNF (or equivalent) bolts to secure the gauge head to the tank or gauge mounting pad. Torque bolts to 20 in. lbs. torque. For the most consistent results, torque using calibrated torque application device.

SIDE OR BOTTOM MOUNTED SENDERS

Must not be used on tanks containing flammable liquids. See 8500 Series technical data sheet for intended applications.

MAINTENANCE AND QUALITY ASSURANCE CONSIDERATIONS

For Quality Assurance applications, installation torque should be controlled at initial installation and application of torque using a calibrated torque device. Regularly verify the calibration and functional condition of the torque application device. Since this is not a metal to metal joint, the torque and screw clamp load will naturally relax as the gasket flows to a normal condition. Do not use a torque wrench to verify the correct screw installation torque after the initial installation. Never re-torque just to restore to 20 in. lbs.

CAUTION:

Do not over torque. Do not re-torque later unless leaking.

Excessive torque/or re-torquing will warp or distort the gauge head. The gaskets underneath gauge heads that are warped during installation or re-torquing are probably over-compressed or pinched in at least one area. Pinching or over-compression of gaskets can dramatically reduce their service-life and may result in failure (leakage) in service, especially after exposure to temperature and vibration.

SENDER AND GAUGE REMOVAL WARNING:

Should it appear necessary, for any reason, to remove the gauge from the tank, do not attempt removal unless under competent supervision with all due precautions taken against the hazards of escaping liquid or vapor.

* Materials and specifications are subject to change without notice.

8500 Series Gauge Installation

05/27/2016

See reverse side for dimensional data, materials of construction, performance, and advice on how to order.

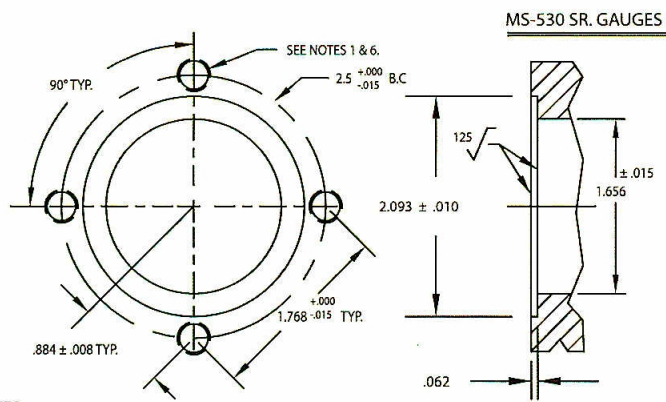
The Measure of Excellence

DRAWING NUMBER
DS-1785

MANTENANCE AND QUALITY ASSURANCE CONSIDERATIONS

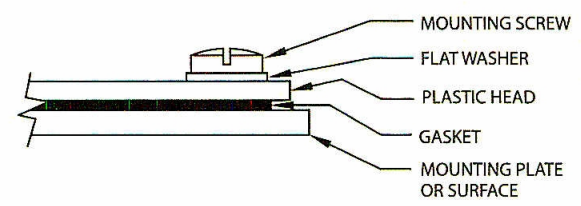
FOR QUALITY ASSURANCE APPLICATIONS, INSTALLATION TORQUE SHOULD BE CONTROLLED AT INITIAL INSTALLATION AND APPLICATION OF TORQUE USING A CALIBRATED TORQUE DEVICE. REGULARLY VERIFY THE CALIBRATION AND FUNCTIONAL CONDITION OF THE TORQUE APPLICATION DEVICE. SINCE THIS IS NOT A METAL TO METAL JOINT, THE TORQUE AND BOLT CLAMP LOAD WILL NATURALLY RELAX AS THE GASKET FLOWS TO A NORMAL CONDITION. DO NOT USE A TORQUE WRENCH TO VERIFY THE CORRECT BOLT INSTALLATION TORQUE AFTER THE INITIAL INSTALLATION. NEVER RE-TORQUE JUST TO RESTORE TO 20 IN.-LBS.

CAUTION: DO NOT OVER TORQUE. DO NOT RE-TORQUE LATER UNLESS LEAKING. EXCESSIVE TORQUE/OR RE-TORQUING WILL WARP OR DISTORT THE GAUGE HEAD. THE GASKETS UNDERNEATH GAUGE HEADS THAT ARE WARPED DURING INSTALLATION OR RE-TORQUING ARE PROBABLY OVER-COMPRESSED OR PINCHED IN AT LEAST ONE AREA. PINCHING OR OVER-COMPRESSSION OF GASKETS CAN DRAMATICALLY REDUCE THEIR SERVICE-LIFE AND MAY RESULT IN FAILURE (LEAKAGE) IN SERVICE, ESPECIALLY AFTER EXPOSURE TO TEMPERATURE AND VIBRATION.



- NOTES:
1. DRILL 5.5MM [.216/.221] DIA. X 3/4" +0/-1/16" CYL. DEPTH. TAP 1/4-28 NF-2 X 1/2 +1/16/-0 FULL TH'D DEPTH, TYP. 4 PLCS.
 2. DRILL LETTER I [.272/.279] DIA. X 3/4" +0/-1/16 CYL. DEPTH. TAP 5/16-24 NF-2 X 1/2" +1/16/-0 FULL TH'D DEPTH, TYP. 4 PLCS.
 3. TAPPED HOLES TO BE \perp TO FACE WITHIN 1/2".
 4. GASKET RECESS TO BE \odot TO BORE WITHIN .030 T.I.R.
 5. TAPPED HOLES TO BE \odot TO GASKET RECESS WITHIN .025 T.I.R.
 6. ALL SR. GAUGES REQUIRE THE 2-1/2" B.C. AND GASKET RECESS, BUT SOME SR. GAUGES USE 5/16-24 TAPPED HOLES INSTEAD OF THE 1/4-28 HOLES. (REF: NOTES 1 & 2).

INSTALLATION INSTRUCTIONS FOR GAUGES EQUIPPED WITH PLASTIC HEADS AS USED ON 8500 SERIES.



1. FLAT WASHER IS REQUIRED.
2. TORQUE IN CROSSING PATTERN.
3. OVER TORQUING OR PLACING A LOCK-WASHER AGAINST THE PLASTIC HEAD MAY CAUSE STRESS CRACKING AFTER UNIT IS PUT INTO SERVICE.
4. TORQUE TO APPROXIMATELY 20 IN. LBS.
5. FOR BEST RESULTS USE A CALIBRATED TORQUING DEVICE.

LET	REVISIONS	E.R.#	DATE	LET	REVISIONS	E.R.#	DATE	LET	REVISIONS	E.R.#	DATE
	TOLERANCES NOT SHOWN	.DD ±.015	.DDD ±.005	ANGLES ±1°	MAT'L:COMMERCIAL TOLERANCES	DO NOT SCALE DRAWING	SUPERSEDES NEW	DRAWN JJ	CHK.	E.R.# 31926	USED ON
	ROCHESTER GAUGES, INC., DALLAS, TEXAS, U.S.A.		OF TEXAS	SCALE NONE	DATE 1/12/16	PART NAME INSTALLATION INSTRUCTIONS		DRAWING NUMBER DS-1785			