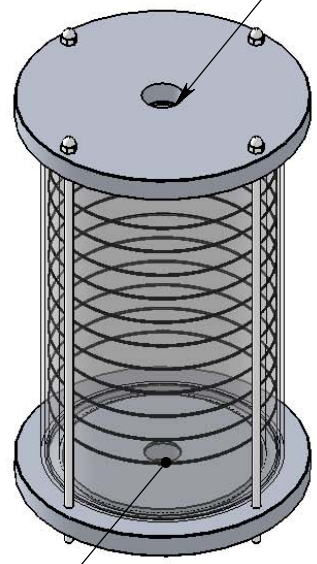


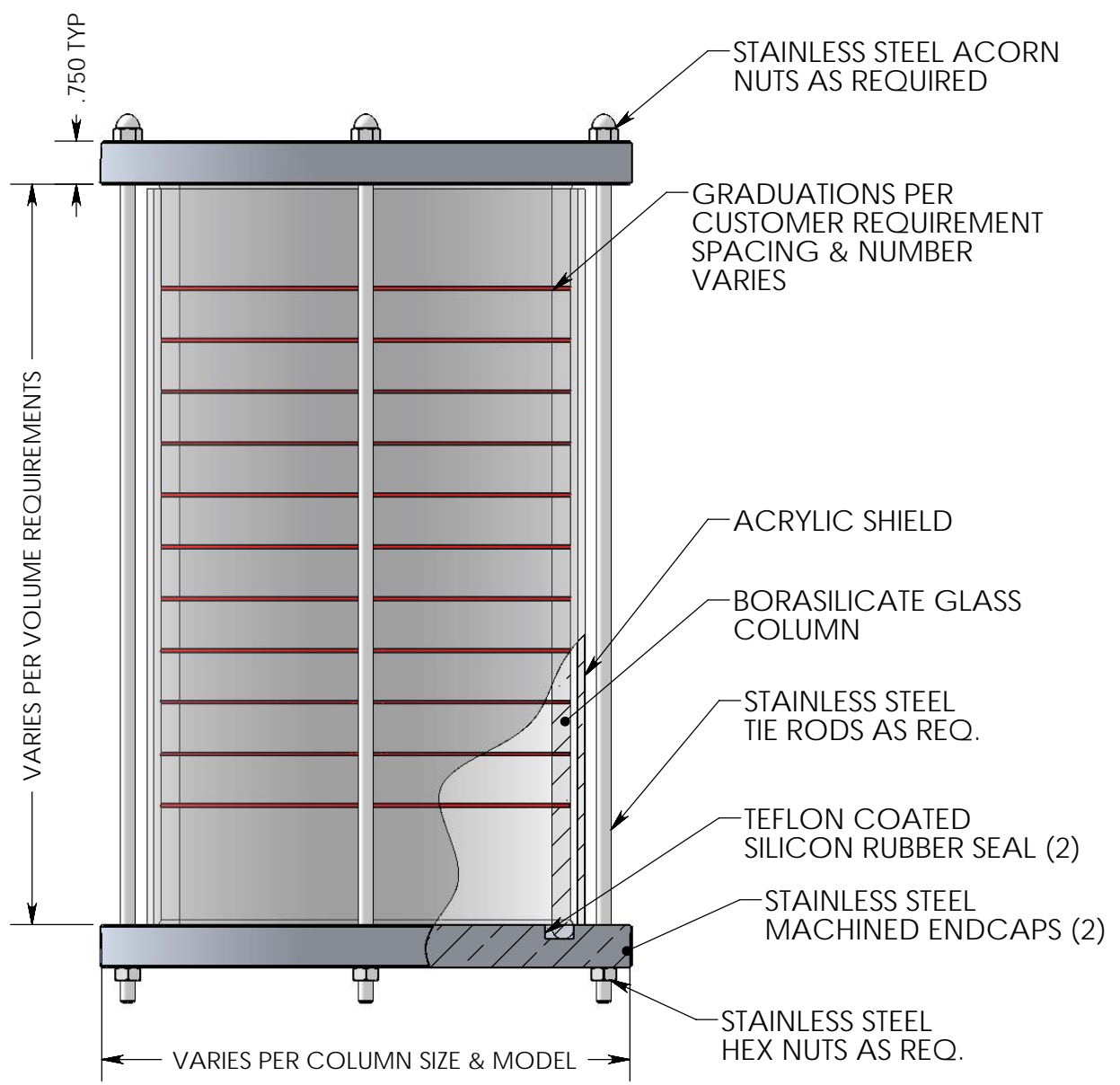
8 7 6 5 4 3 2 1

TOP VENT AND OVERFLOW PORT



BOTTOM INLET AND DRAWDOWN PORT FNPT PER CUSTOMER REQUIREMENTS

INDICO SERIES 85100 CALIBRATION COLUMN



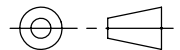
VALCOM div of TRI
81 DIAMOND ST. WALPOLE, MA 02081

508 668 5583

UNLESS OTHERWISE SPECIFIED REMOVE ALL BURRS AND SHARP EDGES

CUSTOMER CODE

THIRD ANGLE PROJECTION



MATERIAL AS CALLED OUT

FINISH

DO NOT SCALE DRAWING

DRAWN

MF

CHECKED

RESP ENG

MFG ENG

QTY PER ASSY

GLASS & STAINLESS STEEL CALIBRATION COLUMN

SIZE A DWG. NO. **SERIES 85100** REV.

SCALE FILE REF: SHEET 1_OF_2

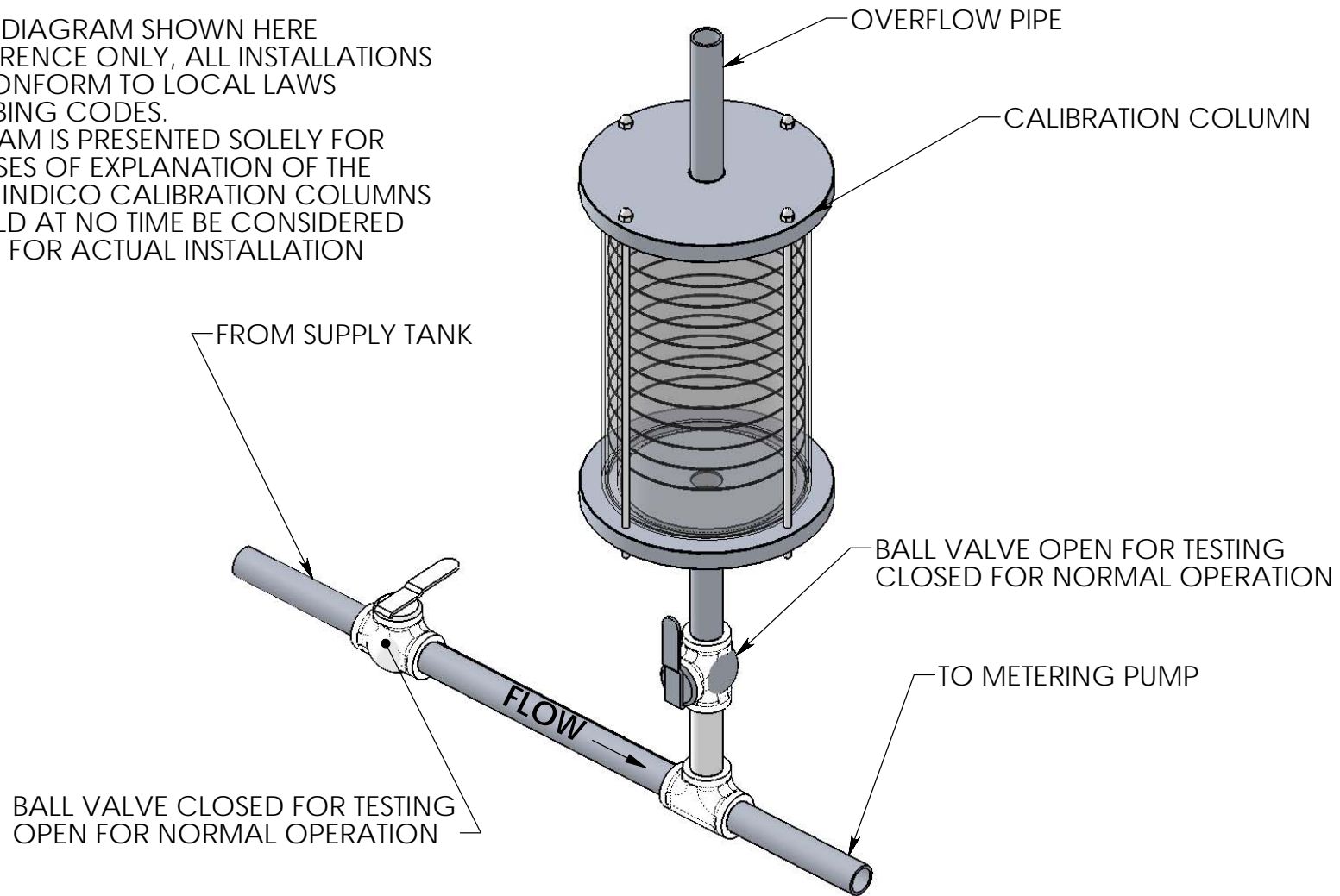
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
FRACTIONS ±1/64 DECIMALS XX±.010 XXX±.005 XXXX±.0005 ANGLES ±1°

8 7 6 5 4 3 2 1

NOTE

THE PIPING DIAGRAM SHOWN HERE IS FOR REFERENCE ONLY, ALL INSTALLATIONS SHOULD CONFORM TO LOCAL LAWS AND PLUMBING CODES. THIS DIAGRAM IS PRESENTED SOLELY FOR THE PURPOSES OF EXPLANATION OF THE USE OF THE INDICO CALIBRATION COLUMNS AND SHOULD AT NO TIME BE CONSIDERED A GUIDELINE FOR ACTUAL INSTALLATION



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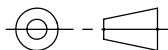
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CUSTOMER CODE

THIRD ANGLE PROJECTION



MATERIAL AS CALLED OUT

FINISH

DO NOT SCALE DRAWING

DRAWN

MF

CHECKED

RESP ENG

MFG ENG

QTY PER ASSY

CALIBRATION COLUMN
PIPING SUGGESTION

SIZE DWG. NO. REV.
A SERIES 85100

SCALE FILE REF: SHEET 2 OF 2

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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:
FRACTIONS DECIMALS ANGLES
 $\pm 1/64$ $XX \pm .010$ $\pm 1^\circ$
 $XXX \pm .005$
 $XXXX \pm .0005$

INDICO[®] SERIES 8500 CALIBRATION COLUMNS INSTALLATION AND OPERATION

Indico[®] series 8500 calibration columns are used to precisely measure the output of metering pumps commonly found in chemical processing systems.

These precision graduated columns are manufactured from materials known to be compatible with the chemicals being pumped.

Calibration columns are meant for use only under ambient pressures, and must never be pressurized.

To use this column correctly:

Attach the column on the drawside of your metering pump by teeing off the main pump input line. Column should be isolated from main feed line through the use of an isolator valve.

There should also be a second isolator valve installed just before the tee. This will be turned off when testing metering pump output.

Customer (enduser) is required to provide an overflow feedback pipe connection to the top of the calibration column to eliminate the possibility of chemical spills should the column become overfilled.

The top vent of a Calibration column should never be blocked off. A free flow of air must be available when filling or drawing off this column.

Failure to follow these guidelines could result in serious damage to property, injury or death.

With your metering pump turned off first open the feed line valve to allow chemical or test fluid to flow.

Second open the valve located just below the calibration column to allow liquid to flow into the column through gravity feed. Monitor flow to fill column to zero level of the column or slightly beyond.

When column is full, shut off main feed valve. At this point the column feed valve should still be open.

Start metering pump and monitor fluid level. Begin timing drawdown when fluid level reaches the zero line and continue pumping for one minute. At the end of a one minute period note the level of fluid relative to the graduation shown on the column.

Multiply the number shown on the graduation line at the time the test was stopped times the graduation increment shown at the bottom of the column.

Using a calibration column graduated in .1 gallon increments as an example.

After one minute the fluid has reached line number 5 on the calibration column. The operator would multiply the increment (graduation value) by .1 increment value is shown near the bottom of the column just below the final increment number.

$5 \times .1 \text{ gallons} = .5 \text{ gallons}$ or $\frac{1}{2}$ gallon. Multiply this value by 60 to get your pump output in gallons per hour.

Unless otherwise specified all Indico[®] brand calibration columns are sized to yield a one minute drawdown, thus making it easier to calculate the final units per hour of fluid flow.

Indico[®] brand calibration columns are manufactured to be read in several units of measure. Gallons, Milliliters, CC's, Liters, and Ounces as well as dual graduations.

It is the responsibility of the customer to verify that the column used in each application is made of materials compatible with the chemical being pumped.

Valcom can help you in choosing the correct (compatible) materials for your application.

Indico[®] brand products are manufactured in the USA. By the Valcom div of TRI.

Valcom div of TRI
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Walpole, MA 02081

508 668 5583