





Supply House to the Processing Industries Since 1964

Trusted supply house of sanitary processing equipment, parts and supplies for the dairy and food, brewery, beverage and pharmaceutical industries.

Harco Enterprises offers a diverse line of sanitary and hygienic processing equipment, parts and supplies including pumps, sanitary valves, separators, homogenizers, gaskets and fittings, sanitary hoses, and instrumentation as well as a variety of other products from world leading manufacturers such as Alfa Laval, Ampco, Tetra Pak, Burkert, Tri-Clover, Remco, Vikan, Carlisle, Haynes, Strahman, and more.

These products are distributed to dairy, food, beverage processing facilities as well as the pharmaceutical, brewing, and fisheries industries throughout North America.

Many of our products are customized in design due to strict sanitary and hygienic standards, and all are built to stand up to the demands of high production environments. Resourcefulness and quick delivery are important to you, and Harco always provides both.

Check out our large collection of equipment, parts and supplies, including our line of color-coded products available.

Visit our website today at www.harcosupply.com

Sanitary Digital Thermometers

SANI-FLOW



Sanitary Digital Thermometers

SANI-FLOW

Designed for the food and beverage industry, these digital thermometers provide accurate, reliable temperature readings in demanding environments. Waterproof, lightweight, and easy to read, they feature a large LCD display for quick temperature monitoring. Low-maintenance and field-serviceable, the thermometers can be recalibrated on-site and operate on two standard AAA batteries that can be easily replaced. 3-A and FDA approved.

Typical Industries:

- Pharmaceutical & Biotechnology
- Food & Beverage
- Meat / Poultry
- Distillery & Winery
- Cosmetic

FEATURES

Accuracy: $\pm 0.5^\circ$ across the full scale with large, high contrast LCD display so there is no guessing, squinting or misreading the temperature. No problem reading several thermometers at one time from a distance.

Durability: Constructed with 316L stainless steel wetted surfaces to assure maximum corrosion resistance. A clean waterproof design allows the thermometer to be hosed down or submersed for cleaning. The Lexan® lens is virtually impervious to cracks and breakage.

Dependability: Powered by two field replaceable standard AAA battery with a life of up to 3 years - no expensive battery pack. Totally electronic which means no hassles with mercury or a separated column. The RTD does not wander or drift like other RTD type thermometers which means fewer recalibrations will be necessary.

Versatility: One thermometer covers a range from -58°F to 302°F (-50°C to 150°C). There is no need to have different thermometers for different applications.

Low Maintenance: Can be recalibrated right in the field, and are powered by just two standard AAA batteries which are easily changeable.

Special Probe Length Option: To fit what your process needs. Built to order within our standard lead times.

A Unique Modular Design means any thermometer can be customized for tough, abusive or special applications.

Repairable: The modular design also allows for cost effective and timely repairs.

Service: Thermometers are available from stock ready to ship. No hassle return policy. No restocking charge on standard thermometers.

SPECIFICATIONS

Compliance	ANSI / 3-A, NEMA 4X, IP675
Accuracy	$\pm 0.5^\circ\text{F}$ ($\pm 0.3^\circ\text{C}$)
Resolution	0.1°F or $^\circ\text{C}$ (Full Scale)
Units	$^\circ\text{F}$ or $^\circ\text{C}$ - Field Selectable
LCD Display Size	1" (2.54 cm)
Refresh Rate	Once per Second
Process Temperature Range	-58° to 302°F (-50° to 150°C)
Ambient Operating Limits	-40° to 176°F (-40° to 80°C)
Ambient Storage Limits	-40° to 185°F (-40° to 85°C)
Product Contact Material	316L Stainless Steel
Product Contact Finish	$R_a \text{ max} = 8 \mu\text{in}$ (0.20 μm)
Case & Lens Ring Material	304L Stainless Steel
Lens Material	$\frac{1}{4}$ " Polycarbonate
Power	Standard AAA Batteries
Battery Life Expectancy	1 to 3 Years
Approx. Shipping Weight	2 Pounds (0.9 Kg)

Tri-Clamp® is a registered trademark of Tri-Clover, Inc.

FITTINGS

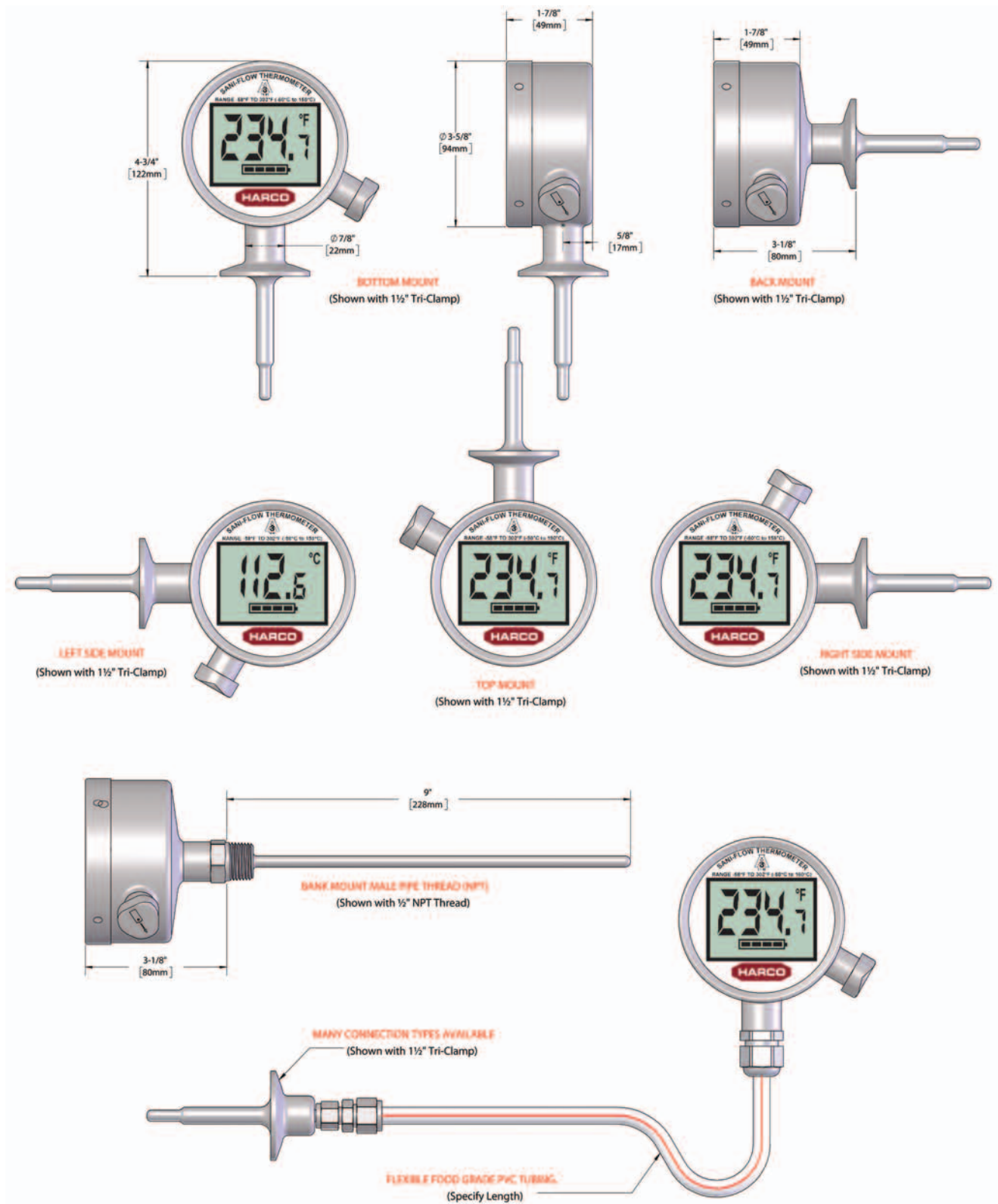
STYLE	SIZE	PROBE LENGTH	CODE
Tri-Clamp®	$\frac{1}{2}$ "	$2\frac{1}{4}$ "	$\frac{1}{2}\text{U}$
	$\frac{3}{4}$ "	$2\frac{3}{8}$ "	$\frac{3}{4}\text{U}$
	1"	$2\frac{5}{8}$ "	1U
	$1\frac{1}{2}$ "	$2\frac{3}{4}$ "	$1\frac{1}{2}\text{U}$
	2"	$3\frac{1}{2}$ " or $5\frac{1}{2}$ "	2U
	$2\frac{1}{2}$ "	$3\frac{1}{2}$ "	$2\frac{1}{2}\text{U}$
	3"	$3\frac{3}{4}$ "	3U
	4"	$4\frac{1}{2}$ "	4U
Projectile Well	-	$3\frac{3}{4}$ "	3PW
	-	$9\frac{1}{8}$ "	9PW
	-	$10\frac{1}{2}$ "	10PW
	-	$12\frac{1}{8}$ "	12PW
NPT $1\frac{1}{4}$ " - $3\frac{1}{4}$ "	-	9"	NPT
Split Ferrule	-	$5\frac{3}{4}$ "	5SP
Air Space	-	$3\frac{3}{4}$ "	3A
	-	5"	5A
	-	$7\frac{1}{4}$ "	7A
	-	-	-
#13H Nut	1"	$1\frac{3}{4}$ "	1T
& #14 Bevel Seat	$1\frac{1}{2}$ "	$2\frac{1}{4}$ "	15T
	2"	$2\frac{5}{8}$ "	2T

STYLE	SIZE	PROBE LENGTH	CODE
Cherry-Burrell	1"	$1\frac{5}{8}$ "	1I
Male I-Line	$1\frac{1}{2}$ "	$2\frac{3}{16}$ "	$1\frac{1}{2}\text{I}$
	2"	$2\frac{1}{2}$ "	2I
	$2\frac{1}{2}$ "	$2\frac{7}{8}$ "	$2\frac{1}{2}\text{I}$
	3"	$3\frac{3}{16}$ "	3I



Sanitary Digital Thermometers

TYPICAL FITTINGS



Sanitary Digital Thermometers

ORDERING INFORMATION

Below are typical examples of models with their descriptions.

EXAMPLE 1:

DT - 1½U - BT - DF

Describes a Sani-Flow Digital Thermometer with 1.5" tri-clamp fitting, bottom mounted with °F display.

EXAMPLE 2:

DT - 2U - LF - DC

Describes a Sani-Flow Digital Thermometer with 2" tri-clamp fitting, left side mounted with °C display.

EXAMPLE 3:

DT - ½NPT - BK - DF

Describes a Sani-Flow Digital Thermometer with 0.5" pipe thread fitting, back mounted with °F display.

EXAMPLE 4:

DT - 9PW - BK - DF

Describes a Sani-Flow Digital Thermometer with 9.125" projectile well fitting, back mounted with °F display.

MODEL NUMBER CONSISTS OF:

SERIES	FITTING	MOUNT	DISPLAY
DT	2U	BT	DF

Please make a selection from each category below:

SERIES

DT - Sani-Flow Digital Thermometer

SANITARY FITTINGS

(Fittings available in ½", ¾", 1½", 2", 2½", 3" & 4")

H G&H "H" Line Male
I Cherry-Burrell Male I-Line
K APC "K" Clamp
Q Cherry-Burrell Q-Line
T #13H Captive Nut & #14 Bevel Seat
U Tri-Clamp®

(Specify size, then adapter type such as 1½U for 1½" Tri-Clamp adapter.)

OTHER FITTINGS

(Specify probe length)

A Air Space
M Umbrella Fitting
NPT ¼", 3/8", ½", 5/8" or ¾" Pipe Thread
PW Projectile Well with 1¼- 18 UNEF Male Thread
SP Split Ferrule
VP - VAT Well Fitting with #13H Captive Nut
OF - No Fitting

MOUNT

BT Bottom Mount
RT Right Side Mount
LF Left Side Mount
TP Top Mount
BK Back Mount
BTR Remote Fitting

DISPLAY

DF °F (Fahrenheit) - Standard
DC °C (Celsius)

Bi-Metal Thermometers



Bi-Metal Thermometers

Designed for reliable, long-term performance in demanding sanitary applications, the Bi-Metal Thermometer provides accurate temperature readings with little or no maintenance. Its durable construction makes it well suited for dairy, food processing, pharmaceutical, and other sanitary processing applications.

FEATURES

Standard 304 Stainless Steel Case and Bezel on all external parts increases corrosion resistance.

Super Sensitive Bimetallic Helix Coil is fabricated to tight tolerances. Heat treated for stress relief and silicone coated to minimize pointer vibration and maximize heat transfer and response time

Bi-Metal Bushing is pressed into groove on stem to center the coil in stem. 302 stainless steel stem wire through center of bushing connects bimetal element to pointer to minimize coil interference with tube wall.

C.I.P. - can be cleaned in place for convenience and eliminates the possibility of damage from mishandling.

Temperature Ranges from -100°F (-75°C) to 1000°F (550°C).

Hermetic Seal on Case/Bezel assembly is a precision interference fit. Silicone gasket provides dustproof and leakproof seal

External Reset Calibration adjusts using an Allen wrench to discourage tampering.

Silicone Fill is available on all gauges for additional dampening of extreme vibration, or to assure consistent performance in low process temperature/high environmental humidity

140°F (60°C) Maximum process temperature Please consult factory when ordering for higher temperature applications.

Immediate Availability from stock for all pressure gauges.

Experienced Engineers are available to answers questions and solve difficult application problems.

Unparalleled Customer Service where the customer is always right and we are not happy until the customer is satisfied.

SPECIFICATIONS

Accuracy	+/-1% of Full Scale
Over Range Capability	30%
Wetted Surfaces	316L Stainless Steel
Case Material	304 Stainless Steel
Dial Size	3", 4", 5" (76, 102, 127mm) Dia.
Standard Lens	Glass
Optional Lens	Various Shatter-Resistant Materials
Temp. Limits	-100°F/1000°F (-75°C/550°C)
Optional Fill	Silicone
Recalibration Feature	Standard
Dry Shipping Wt. 3", 4", 5"	11 oz, 16 oz, 20 oz
Filled Shipping Wt. 3", 4", 5"	14 oz, 22 oz, 30 oz

AVAILABLE RANGES

20 different temperature ranges are available in both Fahrenheit and Celsius. Refer to back page for specific information.

AVAILABLE FITTINGS

½-18 NPT.
¾" Tri-Clamp®, 1½" Tri-Clamp®, 2" Tri-Clamp®,
2½" Tri-Clamp®, 3" Tri-Clamp®, 4" Tri-Clamp®.

AVAILABLE MOUNTINGS

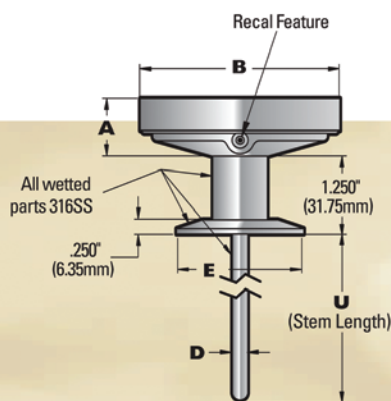
Bottom, Back and Adjustable mount.

Tri-Clamp® is a registered trademark of Tri-Clover, Inc.



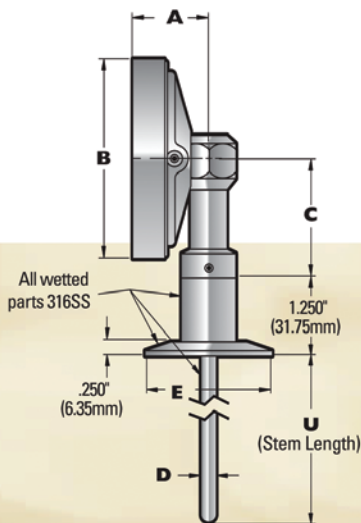
Bi-Metal Thermometers

SANITARY FITTING DIMENSIONS



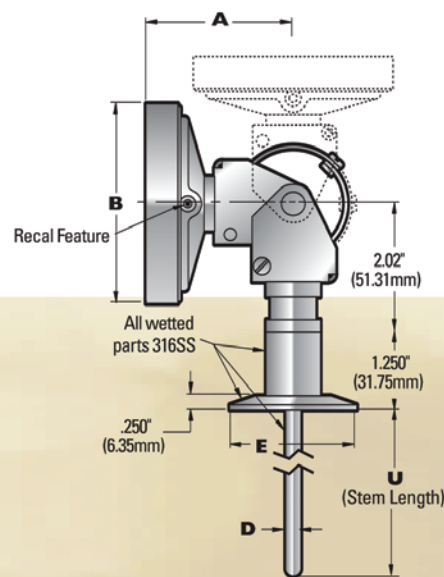
BACK MOUNT
(shown with Tri-Clamp®)

SIZE	A	B
3"	.89" (23mm)	3.19" (81mm)
4"	.89" (23mm)	4.12" (104mm)
5"	.33" (34mm)	5.04" (128mm)



BOTTOM MOUNT
(shown with Tri-Clamp®)

SIZE	A	B	C
3"	1.19" (30mm)	3.19" (81mm)	1.88" (48mm)
4"	1.19" (30mm)	4.12" (104mm)	2.62" (67mm)
5"	1.62" (41mm)	5.04" (128mm)	2.62" (67mm)

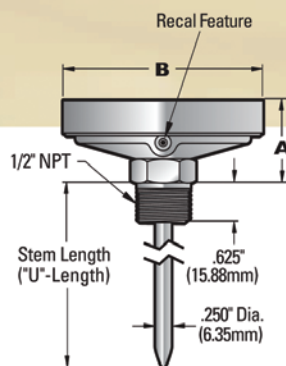


ADJUSTABLE MOUNT
(shown with Tri-Clamp®)

SIZE	A	B
3"	2.43" (62mm)	3.19" (81mm)
4"	2.43" (62mm)	4.12" (104mm)
5"	2.66" (68mm)	5.04" (128mm)

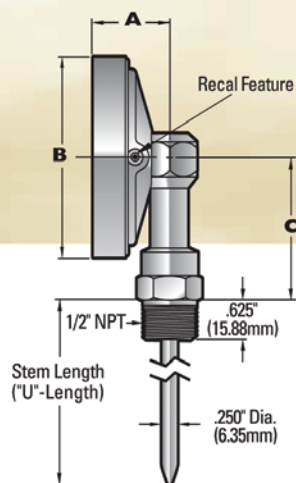
Available Tri-Clamp® Fittings (E): 3/4" Tri-Clamp = .98" (25mm), 1-1/2" Tri-Clamp = 1.98" (50mm), 2" Tri-Clamp = 2.52" (64mm), 2-1/2" Tri-Clamp = 3.05" (77mm), 3" Tri-Clamp = 3.56" (91mm), 4" Tri-Clamp = 4.68" (119mm)
Available Stem Lengths (U): 1.62" (41mm), 2.50" (64mm), 4.50" (114mm), 7.50" (190mm), 10.50" (267mm), 13.50" (343mm), 16.50" (419mm), 22.50" (572mm)

INDUSTRIAL FITTING DIMENSIONS



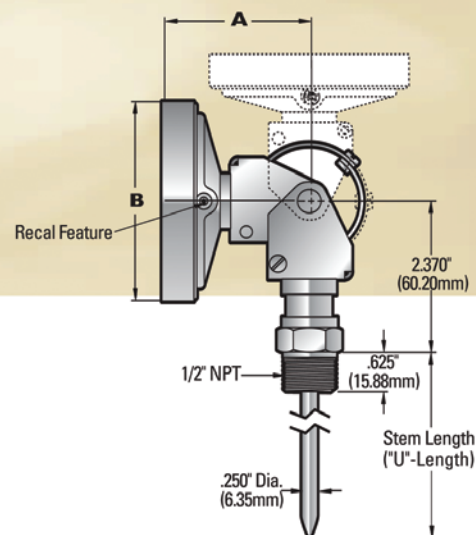
BACK MOUNT
(shown with 1/2" NPT)

SIZE	A	B
3"	1.38" (35mm)	3.19" (81mm)
4"	1.38" (35mm)	4.12" (104mm)
5"	4.72" (44mm)	5.04" (128mm)



BOTTOM MOUNT
(shown with 1/2" NPT)

SIZE	A	B	C
3"	1.19" (30mm)	3.19" (81mm)	2.30" (58mm)
4"	1.19" (30mm)	4.12" (104mm)	3.00" (76mm)
5"	1.62" (41mm)	5.04" (128mm)	3.00" (76mm)



ADJUSTABLE MOUNT
(shown with 1/2" NPT)

SIZE	A	B
3"	2.43" (62mm)	3.19" (81mm)
4"	2.43" (62mm)	4.12" (104mm)
5"	2.66" (68mm)	5.04" (128mm)

Available Stem Lengths (U): 2.50" (64mm), 4.00" (102mm), 6.00" (152mm), 9.00" (229mm), 12.00" (305mm), 15.00" (381mm), 18.00" (457mm), 24.00" (610mm)

Bi-Metal Thermometers

ORDERING INFORMATION

Below are typical examples of models with their descriptions.

EXAMPLE 1:

3B - T67 - 2U - BK - L4.5 - 3/8 - A

Describes a 3" (76mm) Bi-metal Thermometer, 0 to 250°F, 2" Tri-Clamp fitting, back mounted, 4½" probe length with a 0.375" probe diameter, standard glass lens.

EXAMPLE 2:

4B - T87 - 3U - BT - L22.5 - 3/8 - C

Describes a 4" (102mm) Bi-metal Thermometer, -75 to 175°C, 3" Tri-Clamp fitting, bottom mounted, 22½" probe length with a 0.375" probe diameter, safety glass lens.

EXAMPLE 3:

5B - T61 - 1/2NPT - AA - L7.5 - 3/8 - E

Describes a 5" (127mm) Bi-metal Thermometer, 50 to 250°F, ½" NPT fitting, adjustable angle, 7½" probe length with a 0.375" probe diameter, polycarbonate lens.

MODEL NUMBER CONSISTS OF:

SERIES	TEMP. RANGE	FITTING	MOUNT	PROBE LENGTH	PROBE DIA.	LENS
3B	T67	2U	BK	L4.5	3/8	A

Please make a selection from each category below:

SERIES

3B	3" Dial
4B	4" Dial
5B	5" Dial

TEMPERATURE RANGE

T5 1	-100/100°F	T87	-75/175°C
T52	-50/120°F	TEA	-70/70°C
T53	-40/160°F	T7 1	-50/100°C
T54	0/140°F	T72	-50/25°C
T55	0/180°F	T73	-50/50°C
T50	0/200°F	T84	-40/70°C
T56	0/220°F	T86	-20/120°C
T67	0/250°F	T74	-10/110°C
T57	0/300°F	T75	0/50°C
T58	0/500°F	T95	0/60°C
T59	20/240°F	TEI	0/80°C
T60	25/125°F	T76	0/100°C
T6 1	50/250°F	T77	0/150°C
T62	50/300°F	T78	0/200°C
T63	50/400°F	T79	0/250°C
T64	50/500°F	T80	0/300°C
T68	50/550°F	T8 1	0/400°C
T44	100/800°F	T90	0/450°C
T65	150/750°F	T82	100/400°C
T66	*200/1000°F	T83	*100/550°C

*Not for continued use above 800°F (425°C)
(for intermittent use only).

Ranges vary by dial size and fitting.

FITTINGS

¾U	¾" Tri-Clamp (3 16SS)*
1½U	1½" Tri-Clamp (316SS)**
2U	2" Tri-Clamp (3 16SS)
2½U	2½" Tri-Clamp (3 16SS)
3U	3" Tri-Clamp (3 16SS)
4U	4" Tri-Clamp (3 16SS)
½NPT	½" NPT (316SS)

* Used on both ½" and ¾" lines.

** Used on both 1" and 1½" lines.

MOUNT

BT	Bottom Mount
BK	Back Mount
AA	Adjustable Angle

PROBE LENGTH (U)

L2.5	2½" (½" NPT)
L4	4" (½" NPT)
L6	6" (½" NPT)
L9	9" (½" NPT)
L12	12" (½" NPT)
L15	15" (½" NPT)
L18	18" (½" NPT)
L24	24" (½" NPT)
L30	30" (½" NPT)
L36	36" (½" NPT)
L42	42" (½" NPT)
L1.625	1.625" (Tri-Clamp)
L2.5	2.5" (Tri-Clamp)
L4.5	4.5" (Tri-Clamp)
L7.5	7.5" (Tri-Clamp)
L10.5	10.5" (Tri-Clamp)
L13.5	13.5" (Tri-Clamp)
L16.5	16.5" (Tri-Clamp)
L22.5	22.5" (Tri-Clamp)

PROBE DIAMETER (D)

15/64	.236"
1/4	.250" Standard on NPT
5/16	.315"
3/8	.375" Standard on Tri-Clamp

LENS

A	Glass (Standard)
B	Tempered Glass
C	Safety Glass
D	Plastic, Acrylic
E	Plastic, Polycarbonate

Sanitary Pressure Gauges

SANI-FLOW



Sanitary Pressure Gauges

SANI-FLOW

Designed to withstand demanding environments, the Sani-Flow Pressure Gauge provides reliable, long-term performance with little or no maintenance. Its durable construction makes it well suited for sanitary processing applications across a range of industries.

Typical Industries:

- Pharmaceutical & Biotechnology
- Food & Beverage
- Meat / Poultry
- Distillery & Winery
- Cosmetic



FEATURES

316L Stainless Steel Sanitary Fittings & Diaphragm assures maximum corrosion resistance while providing the most sanitary construction possible.

304 Stainless Steel Case for durability even in the harshest environments.

Polycarbonate Lens is virtually impervious to cracks and breakage.

Waterproof Construction throughout allows gauge to be submersed for cleaning.

C.I.P. - can be cleaned in place for convenience and to eliminate the possibility of damage from mishandling.

Pressure Ranges from 30" Hg vacuum to 1,000 psi.

Recessed Diaphragm helps to protect sensitive diaphragm from physical abuse.

True Zero with Re-Zero Feature is standard on all gauges.

Unique Pulsation Dampening System to insulate the gauge movement from punishing pulsations which shorten the life of an ordinary pressure gauge.

Glycerine Fill is standard to protect the gear mechanism against wear and vibration.

500°F Maximum process temperatures (260°C)*.

Immediate Availability from stock for all pressure gauges.

Experienced Engineers are available to answer questions and solve difficult application problems.

Unparalleled Customer Service where the customer is always right and we are not happy until the customer is satisfied. No restocking charges plus 30 day no-risk trials are always available.

SPECIFICATIONS

Compliance	ANSI / 3-A, NEMA 4X, IP67
Accuracy	±1.5% of Full Scale
Over Range Capability	30% Over Range
Linearity/Hysteresis/Repeatability	±0.5% of Full Scale
Process Temperature Range	10° to 250°F (-12° to 121°C) *
Ambient Operating Limits	25° to 160°F (-4° to 71°C)
Ambient Storage Limits	0° to 250°F (-18° to 121°C)
Product Contact Finish	R _a max = 25µin (0.64µm)
Case & Lens Ring Material	304L Stainless Steel
Lens Material	1/4" Polycarbonate
Dial Size	3-1/2"(90mm) or 5"(120mm) Dia.
Standard Fill	Food Grade Glycerine
Re-Zero Adjustment	Standard on Pointer
Approx. Shipping Weight (3½"):	3 Pounds (1.4 Kg)
Approx. Shipping Weight (5"):	5 Pounds (2.3 Kg)

AVAILABLE RANGES (psi)

0 to 30	0 to 300	30"-0-60
0 to 60	0 to 400	30"-0-100
0 to 100	0 to 600	30"-0-150
0 to 160	0 to 1,000	30"-0-200
0 to 200	30"-0-30	30"-0-300

Standard scales are in PSI only, dual PSI/BAR and other scales available upon request.

AVAILABLE FITTINGS

Tri-Clamp®, Bevel Seat, Cherry-Burrell "I" Line, Cherry-Burrell "Q", APC, APV, G & H "H" Line, DIN, ISS, RJT, SMS, Westfalia.

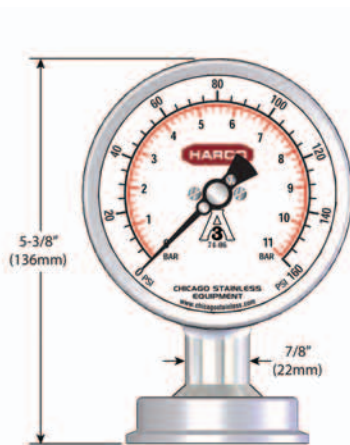
For other fittings please consult Harco.

**For high temperature applications please consult factory.*

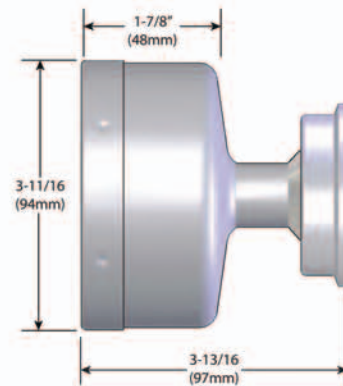
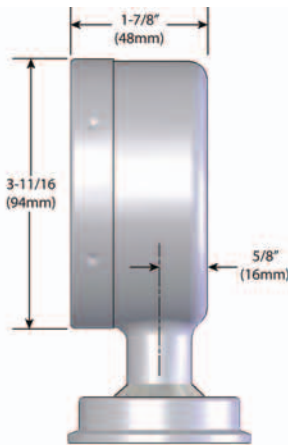
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Teflon® is a registered trademark of E. I. du Pont de Nemours and Company or its affiliates.

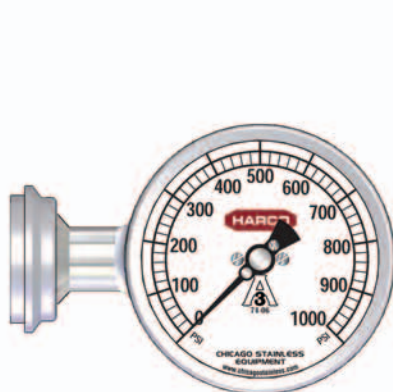
Sanitary Pressure Gauges



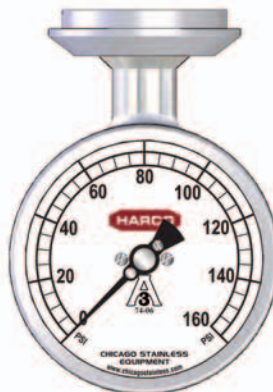
3-1/2" BOTTOM MOUNT
(Shown with 2" Tri-Clamp)



3-1/2" BACK MOUNT
(Shown with 2" Tri-Clamp)



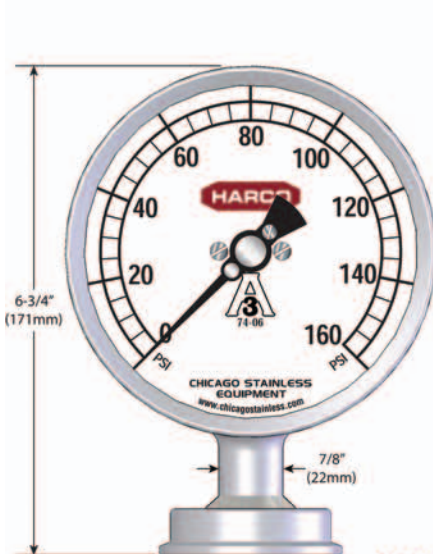
3-1/2" LEFT SIDE MOUNT
(Shown with 1-1/2" Male I-Line)



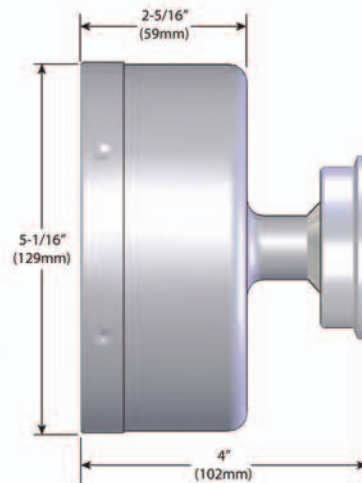
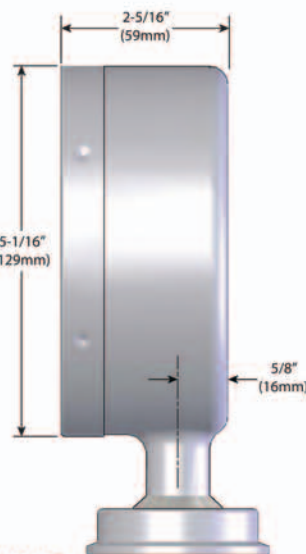
3-1/2" TOP MOUNT
(Shown with 2" Male I-Line)



3-1/2" RIGHT SIDE MOUNT
(Shown with 1-1/2" Tri-Clamp)



5" BOTTOM MOUNT
(Shown with 2" Tri-Clamp)



5" BACK MOUNT
(Shown with 2" Tri-Clamp)

Sanitary Pressure Gauges

ORDERING INFORMATION

Below are typical examples of models with their descriptions.

EXAMPLE 1:

3S - E - 2U - GF - BT - SS

Describes a 3½" Sani-Flow Pressure Gauge, 0 to 160 psi, 2" Tri-clamp fitting, glycerine filled case, bottom mount, and a stainless steel diaphragm.

EXAMPLE 2:

3S - DB - 15U - GF - BK - SS

Describes a 3½" Sani-Flow Pressure Gauge, 0 to 100 psi/0 to 7 BAR, 1½" Tri-clamp fitting, glycerine filled case, back mount, and a stainless steel diaphragm.

EXAMPLE 3:

3S - M - 2S - GF - BT - TF

Describes a 3½" Sani-Flow Pressure Gauge, 30" Hg to 30 psi, 2" bevel seat threaded fitting, glycerine filled case, bottom mount, and a Teflon® diaphragm.

EXAMPLE 4:

5S - GK - 25I - GF - RT - SS

Describes a 5" Sani-Flow Pressure Gauge, 0 to 300 psi/0 to 28 Kg/cm², 2½" male I-line fitting, glycerine filled case, right side mount, and a stainless steel diaphragm.

MODEL NUMBER CONSISTS OF:

SERIES	PRESSURE RANGE	FITTING	FILLED CASE	MOUNT	DIAPHRAGM MATERIAL
3B	T67	2U	BK	L4.5	3/8

Please make a selection from each category below:

SERIES

- 3S** 3½" Sani-Flow Pressure Gauge
3S 5" Sani-Flow Pressure Gauge

PRESSURE RANGE*

- B** 0 to 30 psi (2 BAR)
C 0 to 60 psi (4 BAR)
D 0 to 100 psi (7 BAR)
E 0 to 160 psi (11 BAR)
F 0 to 200 psi (14 BAR)
G 0 to 300 psi (21 BAR)
H 0 to 400 psi (28 BAR)
I 0 to 600 psi (41 BAR)
K 0 to 1,000 psi (70 BAR)
M 30" Hg to 30 psi (-1 to 2 BAR)
N 30" Hg to 60 psi (-1 to 4 BAR)
O 30" Hg to 100 psi (-1 to 7 BAR)
P 30" Hg to 150 psi (-1 to 10 BAR)
Q 30" Hg to 200 psi (-1 to 14 BAR)
R 30" Hg to 300 psi (-1 to 21 BAR)

*Standard scales are in PSI only. For dual scales, after the pressure range add letter B for PSI/BAR, K for PSI/Kg/cm², P for PSI/KPa.

FITTINGS

(Fittings available in 1½", 2", 2½", 3")

- H** G&H "H" Line Male
I Cherry-Burrell Male I-Line
J Cherry-Burrell Female I-Line
K APC "K" Clamp
N ISS
Q Cherry-Burrell "Q"
R RJT
S #15 Bevel Seat Sanitary Male Thread
T #13H Captive Nut & #14 Bevel Seat
U Tri-Clamp®
V #15 APV Gasket Seat Sanitary Male Thread
W #13H Captive Nut & #14 APV Gasket Seat
X APC-PV Gasket Seat w/#13H Captive Nut
Y APC #15 Threaded Male
DIN DIN according to DIN 11851 (specify DIN40 or DIN50)
SMS SMS (specify SMS38 or SMS51)

(Specify size, then fitting type such as 1½"U for a 1½" Tri-Clamp fitting.)

FILLED CASE

- GF** Glycerine Filled
NF No Fill (Dry Case)
04 Other (Specify)

MOUNT

- BT** Bottom Mount
RT Right Side Mount
LF Left Side Mount
TP Top Mount
BK Back Mount

DIAPHRAGM MATERIAL

- SS** Stainless Steel
TF Teflon®

Pharmaceutical Pressure Gauges

PHARMA-FLOW



Pharmaceutical Pressure Gauges

PHARMA-FLOW

Designed to withstand the strict requirements of pharmaceutical processing environments, the Pharma-Flow Pressure Gauge provides reliable, long-term performance with little or no maintenance. Its durable construction makes it well suited for sanitary applications across a range of processing industries.

Typical Industries:

- Pharmaceutical & Biotechnology
- Food & Beverage
- Meat / Poultry
- Distillery & Winery
- Cosmetic

SPECIFICATIONS

Compliance	ANSI / 3-A, NEMA 4X, IP67
Accuracy	±0.75% of Full Scale
Over Range Capability	30% Over Range
Product Contact Material	316L Stainless Steel
Product Contact Finish	$R_{a\max} = 8\mu\text{in}$ (0.20 μm)*
Case & Lens Ring Material	304 Stainless Steel
Dial Size	2½" (63mm), 3½" (90mm) or 5" (120mm) Dia.
Lens Material	1/4" Polycarbonate
Repeatability/Linearity/Hysteresis	±0.5% of Full Scale
Process Temperature Range	10° to 250°F (-12° to 121°C)*
Ambient Operating Limits	25° to 160°F (-4° to 71°C)
Ambient Storage Limits	0° to 250°F (-18° to 121°C)
Standard Fill	Food Grade Glycerine
Rezero Feature	Standard on Pointer
Approx. Shipping Weight (2½")	1 Pounds (0.5 Kg)
Approx. Shipping Weight (5")	5 Pounds (2.3 Kg)
Approx. Shipping Weight (3½")	3 Pounds (1.4 Kg)

FEATURES

316L Stainless Steel Sanitary Fittings & Diaphragm assures maximum corrosion resistance while providing the most sanitary construction possible.

Totally Flush Diaphragm with a mirror-like finish and no sharp corners makes this the industry's most sanitary pressure gauge available.

304 Stainless Steel Case for durability even in the roughest environments.

Polycarbonate Lens is virtually impervious to cracks and breakage.

Waterproof Construction throughout allows gauge to be submersed for cleaning.

C.I.P. - can be cleaned in place for convenience and to eliminate the possibility of damage from mishandling.

Pressure Ranges from 30" Hg vacuum to 1,000 psi.

True Zero with Re-Zero Feature is standard on all gauges.

Unique Pulsation Dampening System eliminates pointer oscillations and insulates the gauge movement from pulsations which shorten the life of an ordinary pressure gauge.

Glycerine Fill is standard to protect the gear mechanism against wear and vibration.

350°F Maximum process temperatures (176°C)*

Immediate Availability from stock for all pressure gauges.

Experienced Engineers are available to answer questions and solve difficult application problems.

Unparalleled Customer Service where the customer is always right and we are not happy until the customer is satisfied. No restocking charges plus 30 day no-risk trials are always available.

AVAILABLE RANGES (psi)

0 to 30	0 to 300	30"-0-60
0 to 60	0 to 400	30"-0-100
0 to 100	0 to 600	30"-0-150
0 to 160	0 to 1,000	30"-0-200
0 to 200	30"-0-30	30"-0-300

Standard scales are in PSI only, dual PSI/BAR and other scales available upon request.

AVAILABLE FITTINGS

Tri-Clamp®, Cherry-Burrell "I" Line, Cherry-Burrell "Q", APC "K" Clamp, G&H "H" Line.

For other fittings please consult Harco.

(1) +/- 1% of full scale with 3/4" Tri-Clamp fitting

(2) For other diaphragm material options - please consult factory or see website configurator

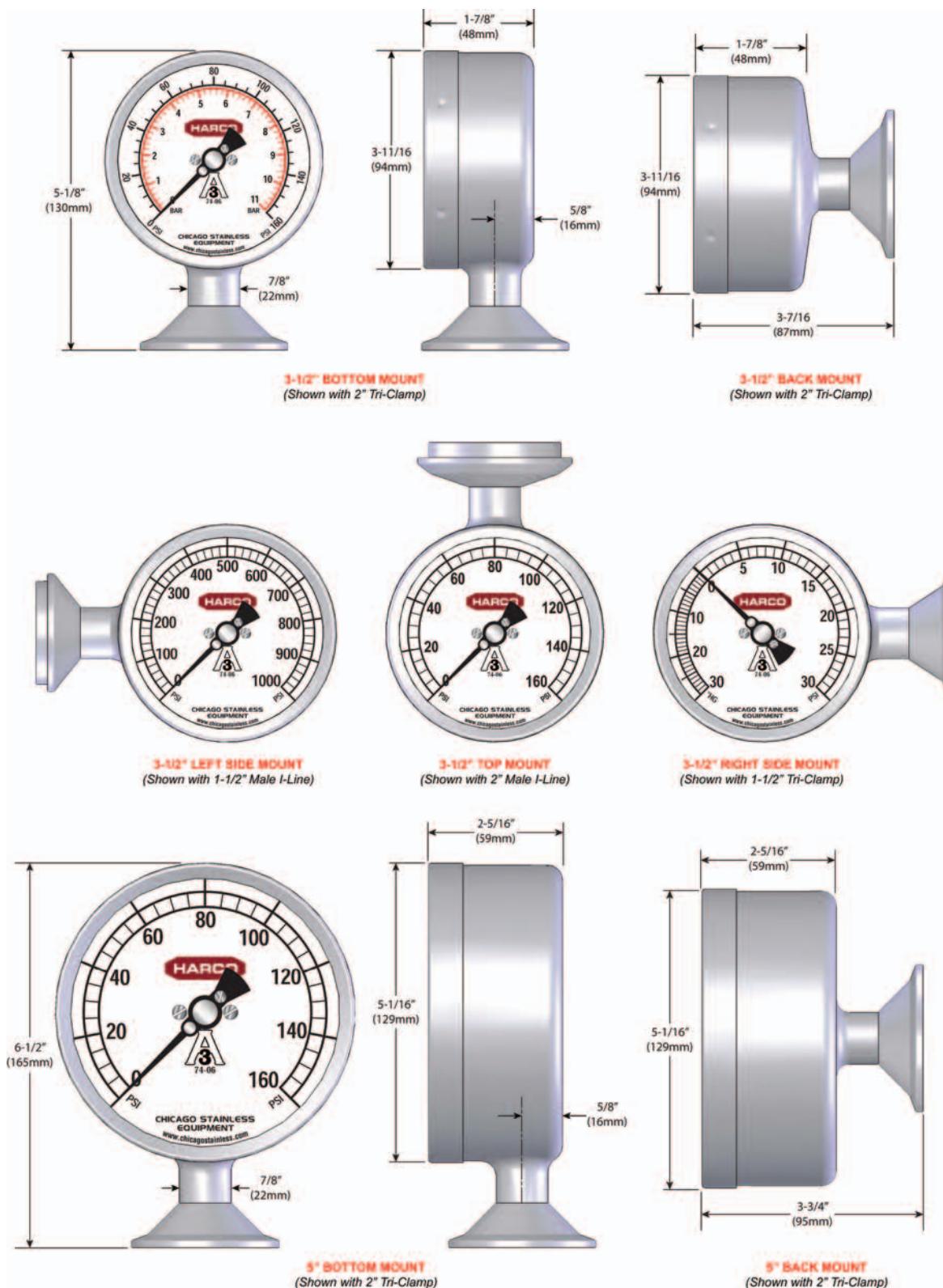
(3) Not applicable for ¾" tri-clamp fitting

(4) High Temperature Option increases maximum process temperature to 350°C (176°F)

Tri-Clamp is a registered trademark of Tri-Clover, Inc.



Pharmaceutical Pressure Gauges



Pharmaceutical Pressure Gauges

ORDERING INFORMATION

Below are typical examples of models with their descriptions.

EXAMPLE 1:

3P - E - 2U - GF - BT

Describes a 3½" Pharma-Flow Pressure Gauge, 0 to 160 psi, 2" Tri-clamp fitting, glycerine filled case, bottom mount.

EXAMPLE 2:

3P - DB - 15U - GF - BK

Describes a 3½" Pharma-Flow Pressure Gauge, 0 to 100 psi/0 to 7 BAR, 1½" tri-clamp fitting, glycerine filled case, back mount.

EXAMPLE 3:

3P - M - 2H - GF - LF

Describes a 3½" Pharma-Flow Pressure Gauge, 30" Hg to 30 psi, 2" G&H "H" line fitting, glycerine filled case, left side mount.

EXAMPLE 4:

5P - GK - 25I - GF - RT

Describes a 5" Pharma-Flow Pressure Gauge, 0 to 300 psi/0 to 28 Kg/cm², 2½" male I-line fitting, glycerine filled case, right side mount.

MODEL NUMBER CONSISTS OF:

SERIES	PRESSURE RANGE	FITTING	FILLED CASE	MOUNT
3P	D	2U	GF	GF

Please make a selection from each category below:

SERIES

2P	2½" (63mm) Pharma-Flow Pressure Gauge
3P	3½" (90mm) Pharma-Flow Pressure Gauge
5P	5" (120mm) Pharma-Flow Pressure Gauge

PRESSURE RANGE*

B	0 to 30 psi (2 BAR)
C	0 to 60 psi (4 BAR)
D	0 to 100 psi (7 BAR)
E	0 to 160 psi (11 BAR)
F	0 to 200 psi (14 BAR)
G	0 to 300 psi (21 BAR)
H	0 to 400 psi (28 BAR)
I	0 to 600 psi (41 BAR)
K	0 to 1,000 psi (70 BAR)
M	30" Hg to 30 psi (-1 to 2 BAR)
N	30" Hg to 60 psi (-1 to 4 BAR)
O	30" Hg to 100 psi (-1 to 7 BAR)
P	30" Hg to 150 psi (-1 to 10 BAR)
Q	30" Hg to 200 psi (-1 to 14 BAR)
R	30" Hg to 300 psi (-1 to 21 BAR)

*Standard scales are in PSI only. For dual scales, after the pressure range add letter B for PSI/BAR, K for PSI/Kg/cm², P for PSI/KPa.

FITTINGS

(Fittings available in 1½", 2", 2½", 3")

H	G&H "H" Line Male
I	Cherry-Burrell Male I-Line
K	APC "K" Clamp
Q	Cherry-Burrell "Q"
U	Tri-Clamp®

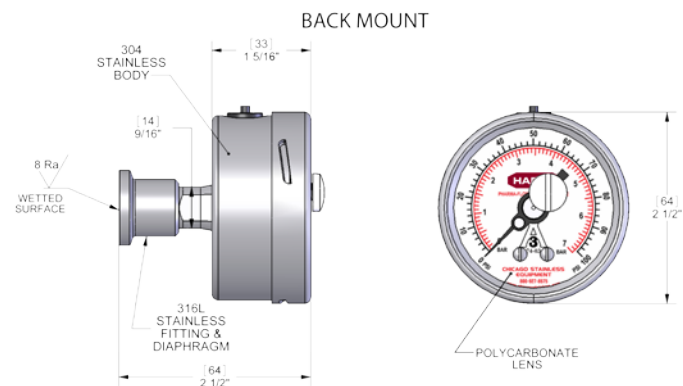
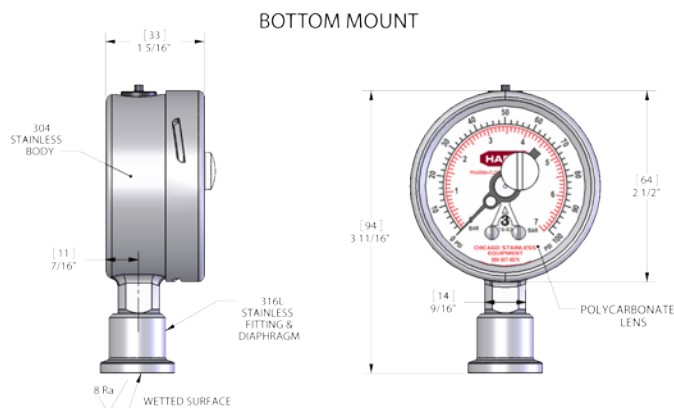
(Specify size, then fitting type such as 1½"U for a 1½" Tri-Clamp fitting.)

FILLED CASE

GF	Glycerine Filled
NF	No Fill (Dry Case)
04	Other (Specify)

MOUNT

BT	Bottom Mount
RT	Right Side Mount
LF	Left Side Mount
TP	Top Mount
BK	Back Mount



Homogenizer Pressure Gauges

SANI-FLOW



5" Homogenizer Pressure Gauges

SANI-FLOW

Designed for demanding environments ranging from food processing to pharmaceutical applications, the Sani-Flow Homogenizer Pressure Gauge provides reliable, long-term performance with little or no maintenance. Its durable construction makes it well suited for sanitary homogenizing and processing applications.

Typical Industries:

- Pharmaceutical & Biotechnology
- Food & Beverage
- Meat / Poultry
- Distillery & Winery
- Cosmetic



FEATURES

316L Stainless Steel Wetted Surfaces to assure maximum corrosion resistance.

304 Stainless Steel Case for durability even in the harshest environments.

Lexan® Lens is virtually impervious to cracks and breakage.

Unique Pulsation Dampening System to insulate the gauge movement punishing pulsations of a homogenizer machine which shorten the life of an ordinary pressure gauge.

Ranges available from 1,000psi up to 15,000psi.

Glycerine Fill is standard to protect the gear mechanism against wear and vibration.

Waterproof Construction throughout to allow gauge to be submersed for cleaning.

C.I.P. - can be cleaned in place for convenience and to eliminate the possibility of damage from mishandling.

350°F Maximum Process Temperature (176°C) with high temperature option.

Immediate Availability from stock for all pressure gauges.

True Zero with Re-Zero Feature is standard on all gauges

SPECIFICATIONS

Compliance: ANSI / 3-A, NEMA 4X, IP67

Accuracy ±1% of Full Scale

Over Range Capability 30% Over Range

Repeatability/Linearity/Hysteresis ±0.5% of Full Scale

Product Contact Material 316L Stainless Steel

Product Contact Finish $R_{a\max} = 25\mu\text{in}$ (0.64 μm)

Case & Lens Ring Material 304 Stainless Steel

Dial Size 5" Diameter (120mm)

Lens Material 3/8" Polycarbonate

Process Temperature Range 10° to 250°F (-12° to 121°C) *

Ambient Operating Limits 25° to 160°F (-4° to 71°C)

Ambient Storage Limits 0° to 250°F (-18° to 121°C)

Standard Fill Food Grade Glycerine

Rezero Feature Standard on Pointer

Approx. Shipping Weight (w/o Flange) 5 Pounds (2.3 Kg)

Approx. Shipping Weight (with Flange) 7 Pounds (3.2 Kg)

* High Temperature Option increases maximum process temperature to 350°F (176°C)

* Other fill options available

AVAILABLE RANGES (psi)

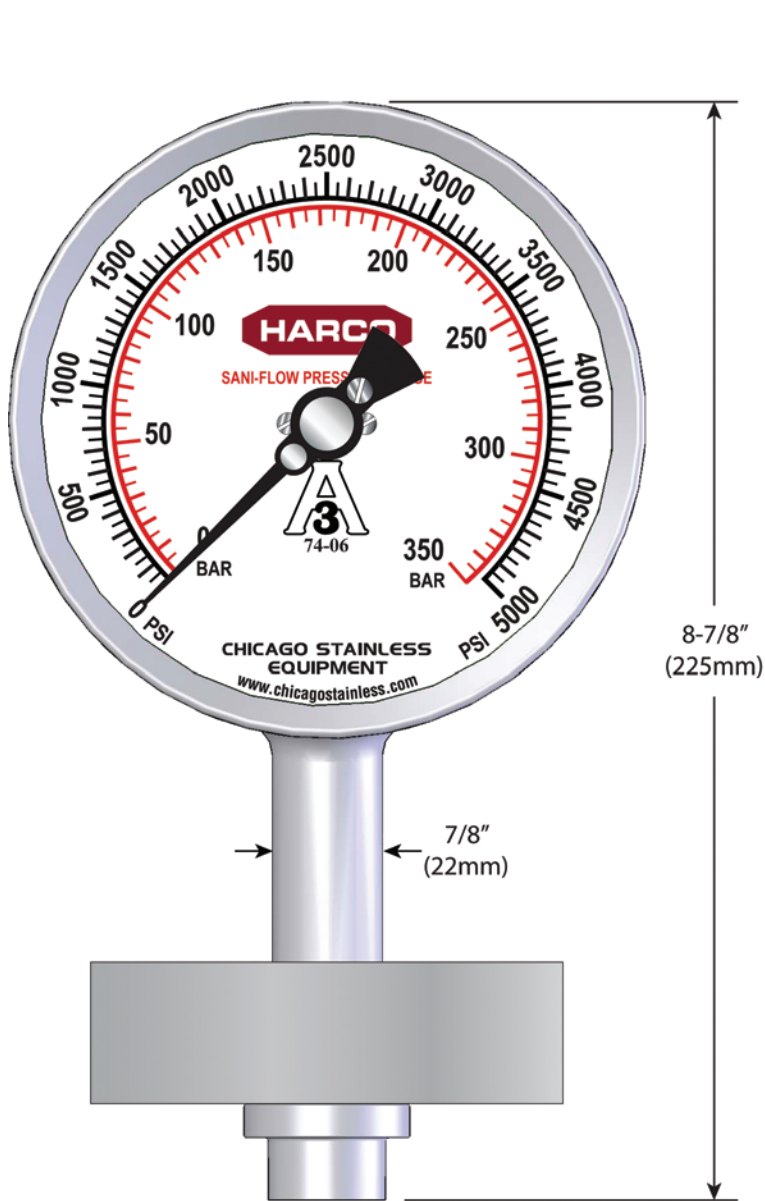
0 - 1,000 psi 0 - 5,000 psi 0 - 10,000 psi
0 - 2,500 psi 0 - 7,500 psi 0 - 15,000 psi
0 - 3,000 psi

Standard scales are in PSI only, dual PSI/BAR and other scales available upon request.

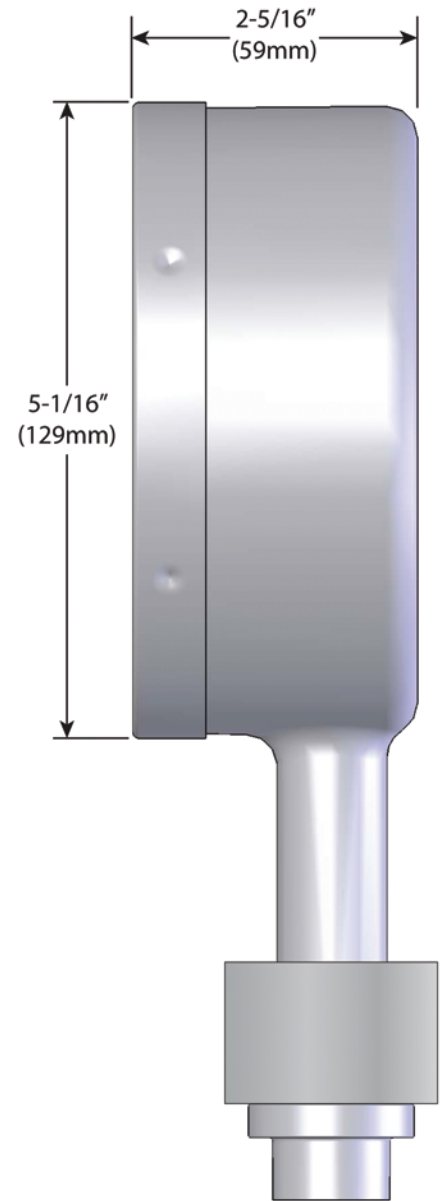
AVAILABLE FITTINGS

7/8" Thick 2 Bolt Flange, 1-1/8" Thick 2 Bolt Flange, Waukesha 1/2" Thick 4 Bolt Flange, Waukesha 3/4" Thick 4 Bolt Flange, 1.66" Thick Laboratory Homogenizer Flange. Also available without flange.

5" Homogenizer Pressure Gauges



FRONT VIEW
(Shown with 2 Bolt Flange)



SIDE VIEW
(Shown with 2 Bolt Flange)

5" Homogenizer Pressure Gauges

ORDERING INFORMATION

Below are typical examples of models with their descriptions.

EXAMPLE 1:

5H - V - 03

Describes a 5" Sani-Flow Homogenizer Pressure Gauge, 0 to 5,000 psi, a 1-1/8" thick flange, and a glycerine filled case.

EXAMPLE 2:

5H - WB - 01

Describes a 5" Sani-Flow Homogenizer Pressure Gauge, dual scale 0 to 10,000 psi/0 to 700 BAR, no flange, and a glycerine filled case.

MODEL NUMBER CONSISTS OF:

SERIES

5H

PRESSURE RANGE

V

FLANGE

03

Please make a selection from each category below:

SERIES

5H 5" Sani-Flow Homogenizer Pressure Gauge

PRESSURE RANGE*

K 0 to 1,000 psi (70 BAR)

T 0 to 2,500 psi (170 BAR)

U 0 to 3,000 psi (205 BAR)

V 0 to 5,000 psi (350 BAR)

Y 0 to 7,500 psi (520 BAR)

W 0 to 10,000 psi (700 BAR)

X 0 to 15,000 psi (1000 BAR)

FLANGE

01 No Flange

02 7/8" Thick 2 Bolt Flange

03 1-1/8" Thick 2 Bolt Flange

04 Waukesha 1/2" Thick 4 Bolt Flange

05 Waukesha 3/4" Thick 4 Bolt Flange

09 1.66" Thick Laboratory Homogenizer Flange

*Standard scales are in PSI only. For dual scales, after the pressure range add letter B for PSI/BAR, K for PSI/Kg/cm², P for PSI/KPa (see examples in column).

Industrial Stainless Steel Pressure Gauges**INSTA-FLOW**

All-Stainless Steel Construction



Industrial Stainless Steel Pressure Gauges

INSTA-FLOW

The Industrial Stainless Steel Pressure Gauge is a durable and accurate, all-stainless-steel pressure gauge designed for demanding industrial applications. Available with NPT connections and pressure ranges from 30" Hg vacuum to 23,000 psi, it is offered with either a 2½" (63 mm) or 4" (100 mm) dial face.

Typical Industries:

- Pharmaceutical & Biotechnology
- Food & Beverage
- Meat / Poultry
- Distillery & Winery
- Cosmetic

FEATURES

316L Stainless Steel Construction on all wetted surfaces assures maximum corrosion resistance.

304 Stainless Steel Case for durability even in the roughest environments.

Waterproof Construction allows the gauge to be submersed for cleaning.

C.I.P. - can be cleaned in place for convenience and eliminates the possibility of damage from mishandling.

Pressure Ranges available from 15 psi up to 23,000 psi.

Dial Face Sizes available in 2½" (63mm), 4" (100mm), or 6" (160mm)

True Zero is standard on all gauges. The pointer is not pinned at zero and there is not a large zero block. This lets the operator know the pressure is truly zero and gives the most accurate pressure reading available.

Re-zero Feature is optional on all gauges.

Glycerin Fill is standard to protect the gear mechanism against wear.

176°F (80°C) Maximum process temperature. Please consult factory when ordering for higher temperature applications.

Immediate Availability from stock for all pressure gauges.

Experienced Engineers are available to answer questions and solve difficult application problems. Unparalleled Customer Service where the customer is always right and we are not happy until the customer is satisfied. No restocking charges and 30 day no-risk trials are always available.

SPECIFICATIONS

Compliance	NEMA 4X, IP67
Accuracy 2" Dial	±1.5% of Full Range (Grade B)
Accuracy 4" Dial	±1% of Full Range (Grade 1A)
Accuracy 6" Dial	±1% of Full Range (Grade 1A)
Over Range Capability	25%
Repeatability/Linearity/Hysteresis	±0.5% of Full Scale
Process Temperature Range	-4° to 176°F (-20° to 80°C)*
Ambient Operating Limits	-40° to 140°F (-40° to 60°C)
Ambient Storage Limits	-40° to 250°F (-40° to 121°C)
Product Contact Material	316L Stainless Steel
Case & Lens Ring Material	304 Stainless Steel
Lens Material 2½" Dial	1/4" Thick (6.4mm) Polycarbonate
Lens Material 4" & 6" Dial	Shatter-Resistant Laminated Glass
Standard Fill	Food Grade Glycerine

Rezero Feature (on pointer)	Optional
Approx. Shipping Weight (2½")	1 lbs. (0.5kg)
Approx. Shipping Weight (4")	2 lbs. (1.0kg)
Approx. Shipping Weight (6")	4 lbs. (1.8 Kg)

*For high temperature applications please consult Harco.

* Re-Zero feature on 4" and 6" dials requires a polycarbonate lens option

** Other fill options available

AVAILABLE RANGES (psi)

0 to 15psi	0 to 400 psi	30" to 0 psi
0 to 30 psi	0 to 600 psi	30" to 15 psi
0 to 60 psi	0 to 1,000 psi	30" to 30 psi
0 to 100 psi	0 to 3,000 psi	30" to 60 psi
0 to 160 psi	0 to 10,000 psi	30" to 100 psi
0 to 200 psi	0 to 14,500 psi (2½" only)	30" to 150 psi
0 to 300 psi	0 to 23,000 psi (2½" only)	

Standard scales are in PSI only, dual scale PSI-BAR, PSI-KG/cm², metric and other scales available upon request.

AVAILABLE FITTINGS

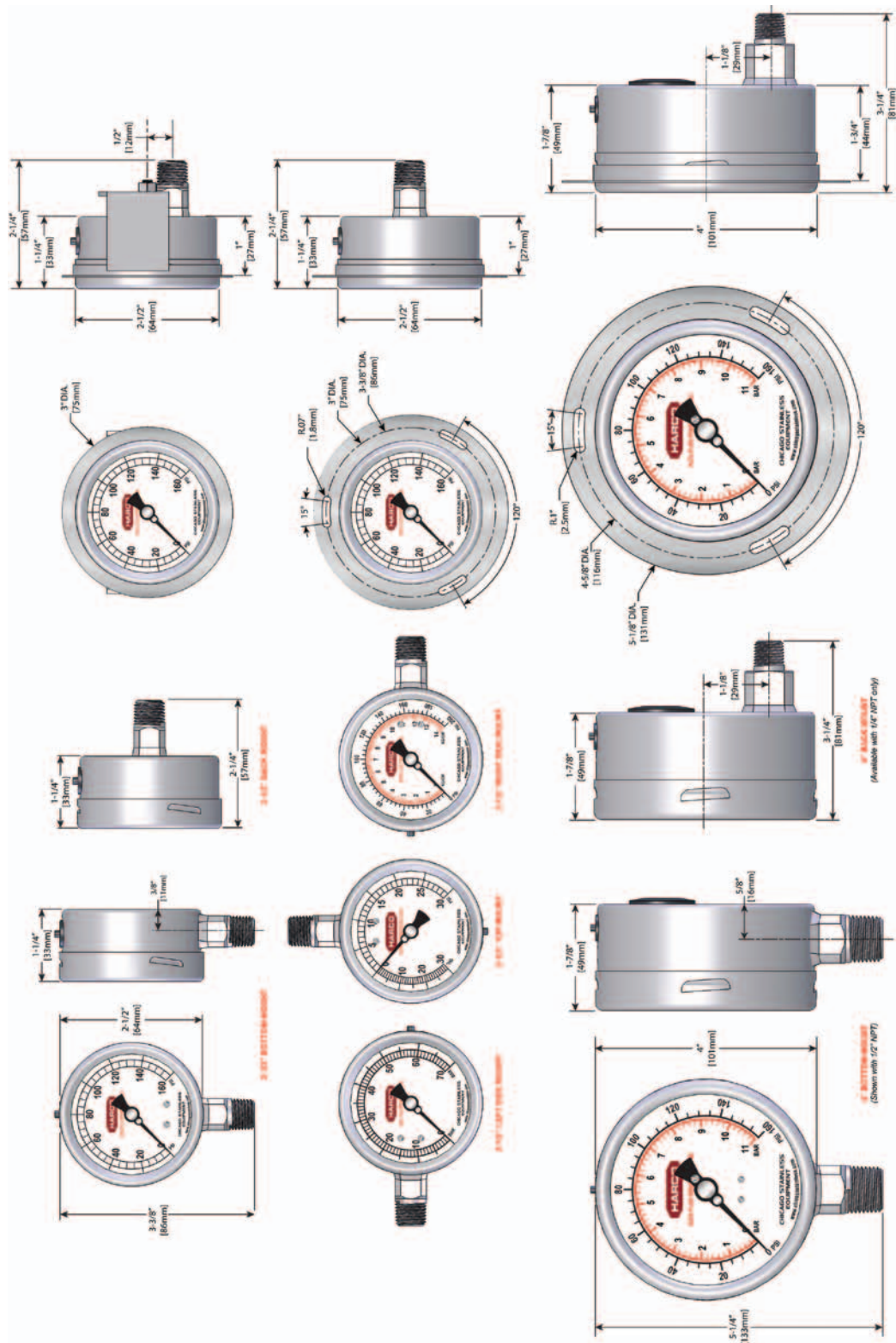
¼-18 NPT for 2½" (63mm).
¼-18 NPT or ½-18 NPT for 4" (100mm).
For other fittings please consult Harco.

AVAILABLE MOUNTINGS

Bottom, Top, Left Side, Right Side and Back mount.



Industrial Stainless Steel Pressure Gauges



Industrial Stainless Steel Pressure Gauges

ORDERING INFORMATION

Below are typical examples of models with their descriptions.

EXAMPLE 1:

2N - E - 1/4NPT - GF - BT

Describes a 2 1/2" (63mm) Insta-Flow Pressure Gauge, 0 to 160 psi, 1/4" NPT fitting, glycerine filled case, bottom mounted.

EXAMPLE 2:

2N - DB - 1/4NPT - GF - BT

Describes a 2 1/2" (63mm) Insta-Flow Pressure Gauge, 0 to 100 psi/0 to 7 BAR, 1/4" NPT fitting, glycerine filled case, bottom mounted.

EXAMPLE 3:

4N - E - 1/2NPT - GF - BK

Describes a 4" (100mm) Insta-Flow Pressure Gauge, 0 to 160 psi, 1/2" NPT fitting, glycerine filled case, back mounted.

EXAMPLE 4:

4N - GK - 1/4NPT - GF - RT

Describes a 4" (100mm) Insta-Flow Pressure Gauge, 0 to 300 psi/0 to 21 Kg/cm2, 1/4" NPT fitting, glycerine filled case, right side mounted.

MODEL NUMBER CONSISTS OF:

SERIES	PRESSURE RANGE	FITTING	FILLED CASE	MOUNT
2N	D	1/4NPT	GF	BT

Please make a selection from each category below:

SERIES

2N - 2 1/2" (63mm) Insta-Flow Gauge

4N - 4" (100mm) Insta-Flow Gauge

PRESSURE RANGE*

A	0 to 15 psi (1 BAR)
B	0 to 30 psi (2 BAR)
C	0 to 60 psi (4 BAR)
D	0 to 100 psi (7 BAR)
E	0 to 160 psi (11 BAR)
F	0 to 200 psi (14 BAR)
G	0 to 300 psi (21 BAR)
H	0 to 400 psi (28 BAR)
I	0 to 600 psi (41 BAR)
K	0 to 1,000 psi (70 BAR)
M	30" Hg to 30 psi (-1 to 2 BAR)
N	30" Hg to 60 psi (-1 to 4 BAR)
O	30" Hg to 100 psi (-1 to 7 BAR)
P	30" Hg to 150 psi (-1 to 10 BAR)
U	0 to 3,000 psi (205 BAR)
W	0 to 10,000 psi (700 BAR)
14500	0 to 14,500 psi (1,00 BAR)**
23000	0 to 23,000 psi (1,600 BAR)**
J	30" Hg to 0 psi (-1 to 0 BAR)
L	0" Hg to 15 psi (-1 to 1 BAR)
M	30" Hg to 30 psi (-1 to 2 BAR)
N	30" Hg to 60 psi (-1 to 4 BAR)
O	30" Hg to 100 psi (-1 to 7 BAR)
P	30" Hg to 150 psi (-1 to 10 BAR)

FITTINGS

1/4NPT 1/4-18 Male Pipe Thread

1/2NPT 1/2-14 Male Pipe Thread (4" only)

FILLED CASE

GF Glycerine Filled

SF - Silicone Filled

NF No Fill (Dry Case)

04 Other (Specify)

MOUNT

BT Bottom Mount

BK Back Mount

TP Top Mount

RT Right Side Mount

LF Left Side Mount

* Standard scales are in PSI only. For dual scales, after the pressure range add letter B for PSI/BAR, K for PSI/Kg/cm2, P for PSI/KPa.

** Available in 2 1/2" dial size only.

Sanitary RTD's & Temperature Transmitters

SANI-FLOW



Transmitter

RTD's (Resistance Temperature Detectors) include:

- Platinum 100 Ohm 3 Wire Thin Film Element
- Compact, Durable All Stainless Steel Design
- 12 mm Industrial Connector with Gold Plated Copper Contacts
- NEMA 4X, IP-67 Rated

Temperature Transmitters also include:

- 4 to 20 mA Output
- Easy Span and Zero Adjustments
- Field Replaceable Circuit Board

Sanitary RTD's & Temperature Transmitters

SANI-FLOW

Designed to withstand demanding environments, the Sani-Flow RTD and Temperature Transmitters feature a standard 12 mm industrial connector for quick and easy installation and removal. The plug-in design eliminates complicated wiring and helps prevent leaking transmitter heads. Using 100-ohm, 3-wire platinum (PT-100) elements, these transmitters are designed for direct immersion in sanitary process applications, providing fast and accurate temperature readings.

Typical Industries:

- Pharmaceutical & Biotechnology
- Food & Beverage
- Meat / Poultry
- Distillery & Winery
- Cosmetic

FEATURES

Compact Design: Compact construction allows installation in a wide range of locations.

Durability: 316L stainless steel exterior with a near-mirror finish provides excellent corrosion resistance and cleanliness. Gold-plated copper connector contacts enhance durability. Surface-mounted components help protect electronics from vibration, while enhanced EMI/RFI rejection circuitry minimizes interference.

Cleanability: 3-A approved, hermetically sealed sensors are IP67 (NEMA 4X) rated for temporary submersion and designed to withstand aggressive washdown. Suitable for Clean-In-Place (CIP), Steam-In-Place (SIP), and autoclave applications. The sanitary, self-draining exterior features a smooth watershed design.

Connectorized: RTD and Temperature Transmitter models feature a standard 12 mm industrial connector with gold-plated contacts for quick installation and removal without complicated wiring or specialized tools.

Accuracy: PT-100 (Platinum 100 Ohm), 3-wire thin-film RTD elements provide accuracy up to $\pm 0.1^\circ\text{C}$ and fast, reliable temperature readings.

Repairable: Designed for serviceability, sensors can be repaired rather than replaced. Electronics can also be replaced in the field.

Field Calibratable: Temperature Transmitters allow easy zero and span adjustment, with field calibration and range changes available when performed by a qualified technician.

Traceability: Sensors are permanently marked with model and serial numbers for easy identification. Custom identification numbers can also be provided upon request.

Customization: Sensors are available with a variety of fittings and custom probe lengths to meet specific application requirements. Harco can assist with selecting the appropriate configuration.

SPECIFICATIONS

RTD and TT

Description:	3-Wire PT-100 Class A
Compliance:	ANSI / 3-A *, NEMA 4X, IP67
Coefficient:	Alpha = 0.00385 - Ohms/Ohm/ $^\circ\text{C}$ (Per DIN EN 60751 / IEC 751)
Accuracy:	$\pm 0.15 + 0.002 T ^\circ\text{C}$
Stability:	Maximum - R - drift 0.04% (After 100h at $500^\circ\text{C}/932^\circ\text{F}$)
Process Temperature Limits:	
	(RTD): -50° to 150°C (-58° to 302°F) **
	(Transmitter): -30° to 150°C (-22° to 302°F) **
Ambient Temperature Limits:	
	(RTD): -25° to 125°C (-13° to 257°F) ***
	(Transmitter): -25° to 85°C (-13° to 185°F) ***
Material:	316L SS wetted surfaces
Surface Finish:	$R_a \text{ max} = 8 \text{ micro-inches}$
Connector:	Std. 12mm industrial connector, Gold plated copper contacts & Polyamide insert
CIP/SIP:	Yes

TT - Temperature Transmitter

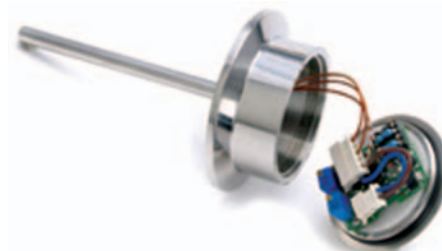
Accuracy:	$\pm 0.15\%$ of Scale
Range:	-30°C to 150°C (-22°F to 302°F) factory or field rechangeable**
Input:	6 to 32 VDC
Output:	4 to 20 mA (Temperature Linear)
Resolution:	5 μA (0.005mA)
Span:	20°C (36°F) Minimum – 200°C (360°F) Maximum
Linearity:	$\pm 0.1\%$ of Span
Long Term Stability:	$\pm 0.05\%$ of Span/Year
Output Load:	$R_{\text{Load}} = (V_{\text{Supply}} - 8.0\text{V}) / 0.022$
Sensor Failure Detection:	Upscale
Isolation:	Not Galvanically Isolated
Calibration:	Field calibratable, zero and span adjustments, rangeable ****
Zero Adjustment:	Any value within range limits ****
Minimum Span:	20°C (36°F)

* Sanitary connections only

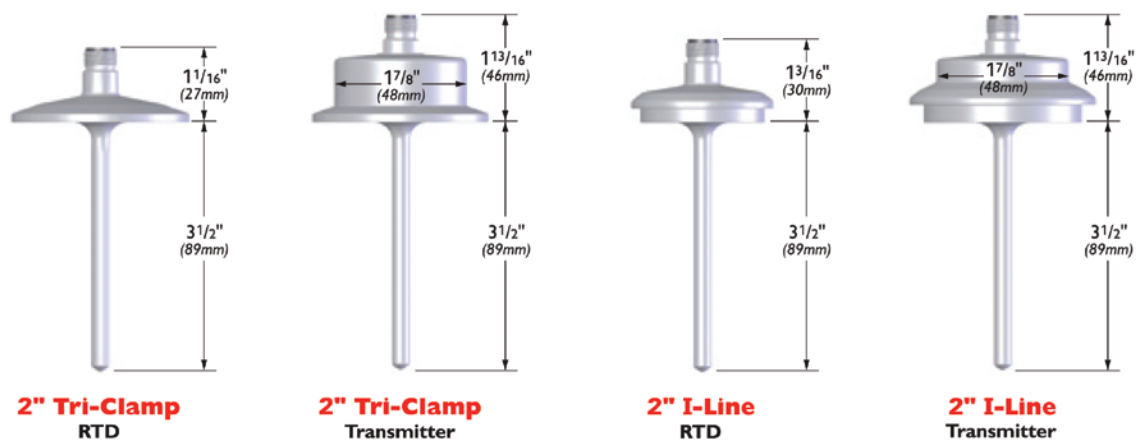
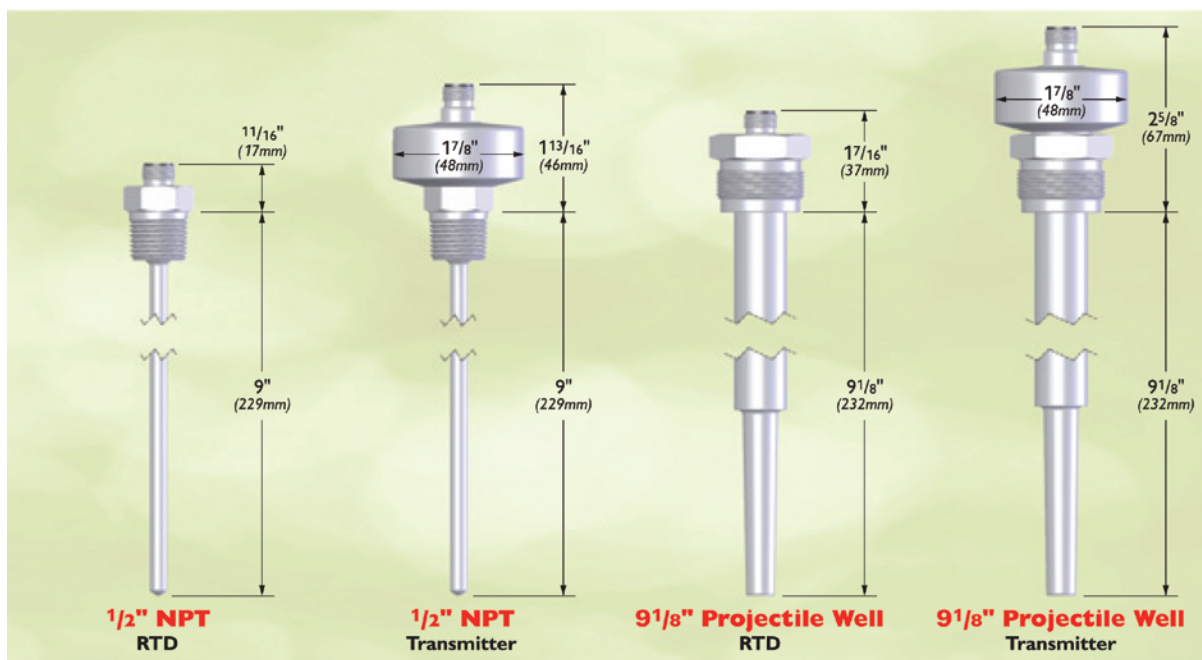
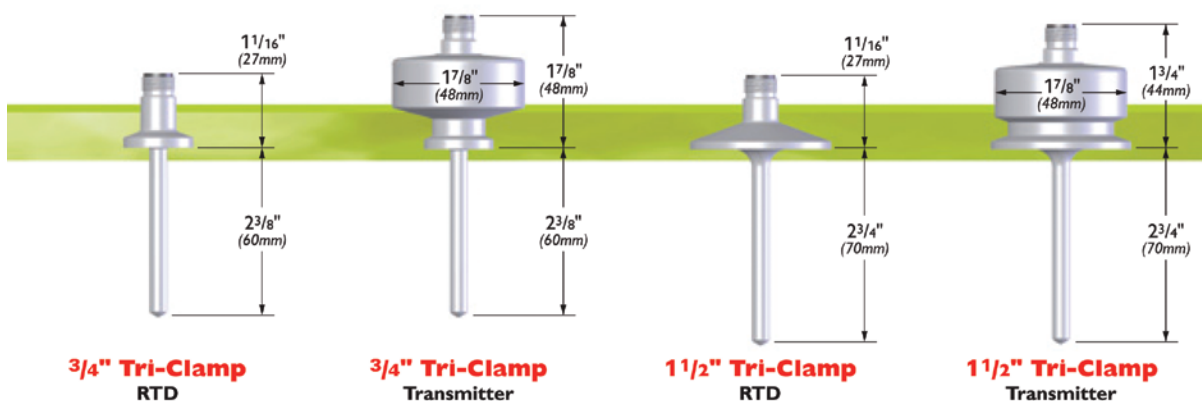
** High Temperature Option increases maximum process temperature to 204°C (400°F)

*** Verify temperature limit of mating cable

**** By a knowledgeable/qualified technician using NFC and a smart phone or tablet and INOR Connect app. Available for free download on App Store, Google Play store and Huawei AppGallery



Sanitary RTD's & Temperature Transmitters



Sanitary RTD's & Temperature Transmitters

ORDERING INFORMATION

Below are typical examples of models with their descriptions.

EXAMPLE 1:

RTD - 11/2U - E1

Describes a Sani-Flow Resistive Temperature Device with a 1½" Tri-Clamp Fitting with a Single Element.

EXAMPLE 2:

TT - 9PW

Describes a Sani-Flow Temperature Transmitter with a 9" Projectile Well Fitting.

EXAMPLE 3:

TT - 1/2NPT

Describes a Sani-Flow Temperature Transmitter with a ½" Male NPT Fitting.

MODEL NUMBER CONSISTS OF:

SERIES	FITTING	ELEMENT
RTD	1½U	E1

Please make a selection from each category below:

SERIES

RTD Sani-Flow Resistive Temperature Device

TT Sani-Flow Temperature Transmitter

SANITARY FITTINGS

(Fittings available in ½", ¾", 1½", 2", 2½", 3" & 4")

H G&H "H" Line Male

I Cherry-Burrell Male I-Line

K APC "K" Clamp

Q Cherry-Burrell "Q"

T #13H Captive Nut & #14 Bevel Seat

U Tri-Clamp®

(Specify size, then fitting type such as 1½"U for a 1½" Tri-Clamp fitting.)

For special length probes add SP and the required probe length at the end of the part number; such as SP2.75 for a 2¾" long probe.

Cable sold separately.

OTHER FITTINGS

(Specify probe length)

A Air Space

M Umbrella Fitting

NPT ¼", 3/8", ½", 5/8" or ¾" Pipe Thread

PW Projectile Well with 1¼- 18 UNEF Male Thread

SP Split Ferrule

VP - VATWell Fitting with #13H Captive Nut

OF - No Fitting

ELEMENT*

E1 Single Element

E2 Dual Element

* Available for RTD only.



Brewery Pressure Gauges

SANI-FLOW



Brewery Pressure Gauges

SANI-FLOW

Designed specifically for the brewery industry, the Brewery Pressure Gauges provide reliable, long-term performance in demanding environments with little or no maintenance. An economical choice for brewery applications, they are also well suited for winery, distillery, and food processing environments.

Typical Industries:

- Brewery
- Winery
- Distillery
- Food



FEATURES

Affordability Our brewery gauge is our most affordable sanitary pressure gauge.

316L Stainless Steel Sanitary Fittings & Diaphragm assures maximum corrosion resistance while providing the most sanitary construction possible.

Totally Flush Diaphragm with a mirror-like finish and no sharp corners makes this the industry's most sanitary pressure gauge available.

304 Stainless Steel Case durability even in the harshest environments.

Polycarbonate Lens is virtually impervious to cracks and breakage.

Waterproof Construction allows gauge to be submersed for cleaning.

C.I.P. - can be cleaned in place for convenience and to eliminate the possibility of damage from mishandling.

Pressure Ranges from 30" Hg vacuum to 1,000 psi. Also available in vacuum ranges.

True Zero with Re-Zero Feature is standard on all gauges.

Unique Pulsation Dampening System to insulate the gauge movement from punishing pulsations which shorten the life of an ordinary pressure gauge.

Glycerine Fill is standard to protect the gear mechanism against wear and vibration.

Immediate Availability from stock for all pressure gauges.

Experienced Engineers are available to answer questions and solve difficult application problems.

Unparalleled Customer Service where the customer is always right and we are not happy until the customer is satisfied. No restocking charges plus 30 day no-risk trials are always available.

SPECIFICATIONS

Compliance	NEMA 4X, IP67
Accuracy	±1.5% of Full Scale
Over Range Capability	+ 25% Over Range
Linearity	±0.5% of Full Scale
Hysteresis	±0.5% of Full Scale
Repeatability	±0.5% of Full Scale
Temp. Range	0° to 176°F (-18° to 80°C) *
Ambient Operating Limits	-25° to 140°F (-4° to 60°C)
Ambient Storage Limits	0° to 250°F (-18° to 121°C)
Dial Size	2.5"(63mm), 4"(100mm) Dia.
Product Contact Material	316L Stainless Steel
Product Contact Finish	R _a max = 32µin (0.81µm)
Case Material	304 Stainless Steel
Lens Material	0.25" Thick (6.4mm) Polycarbonate
Standard Fill	99.7% USP Food Grade Glycerin **
Re-zero Feature	Standard - 100% of Span **

Approx. Shipping Weight (2.5") 1 Pound (0.5 Kg)

Approx. Shipping Weight (4") 2 Pounds (1.0 Kg)

* High Temperature Option increases maximum process temperature to 350°F (176°C)

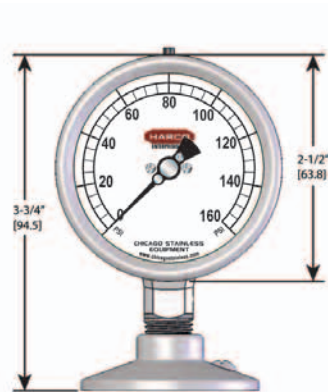
** Other fill options available

AVAILABLE FITTINGS

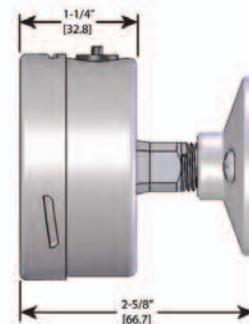
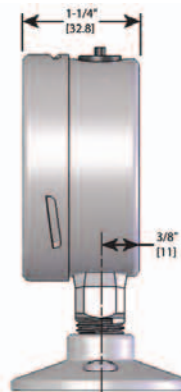
Tri-Clamp®.

For other fittings please consult Harco.

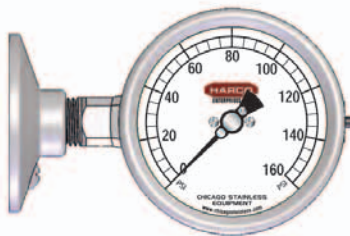
Brewery Pressure Gauges



2-1/2" BOTTOM MOUNT
(Shown with 1-1/2" Tri-Clamp)



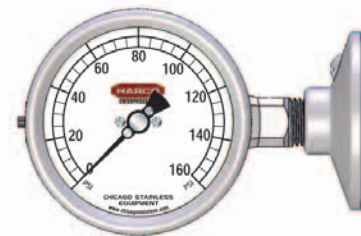
2-1/2" BACK MOUNT
(Shown with 1-1/2" Tri-Clamp)



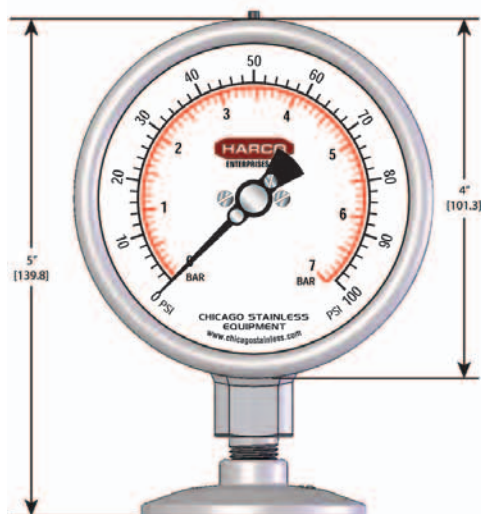
2-1/2" LEFT SIDE MOUNT
(Shown with 1-1/2" Tri-Clamp)



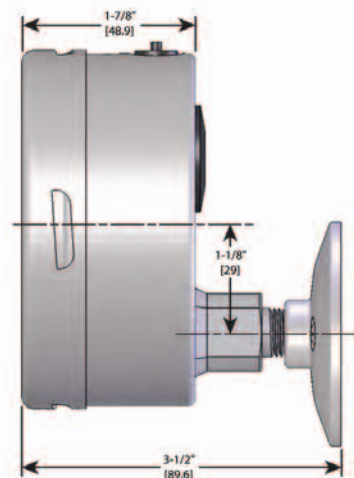
2-1/2" TOP MOUNT
(Shown with 1-1/2" Tri-Clamp)



2-1/2" RIGHT SIDE MOUNT
(Shown with 1-1/2" Tri-Clamp)



4" BOTTOM MOUNT
(Shown with 2" Tri-Clamp)



4" BACK MOUNT
(Shown with 2" Tri-Clamp)

Brewery Pressure Gauges

ORDERING INFORMATION

Below are typical examples of models with their descriptions.

EXAMPLE 1:

2A - E - 2U - GF - BT

Describes a 2.5" Brewery Sani-Flow Pressure Gauge, 0 to 160 psi, 2" Tri-clamp fitting, glycerine filled case, bottom mount.

EXAMPLE 2:

4A - E - 2U - GF - BK

Describes a 4" Brewery Sani-Flow Pressure Gauge, 0 to 160 psi, 2" Tri-clamp fitting, glycerine filled case, back mount.

EXAMPLE 3:

2A - M - 1.5U - GF - LF

Describes a 2.5" Brewery Sani-Flow Pressure Gauge, 30" Hg to 30 psi, 1.5" Tri-clamp fitting, glycerine filled case, left side mount.

EXAMPLE 4:

4A - GK - 1.5U - GF - RT

Describes a 5" Pharma-Flow Pressure Gauge, 0 to 300 psi/0 to 28 Kg/cm², 1.5" Tri-clamp fitting, glycerine filled case, right side mount.

MODEL NUMBER CONSISTS OF:

SERIES	PRESSURE RANGE	FITTING	FILLED CASE	MOUNT
2A	D	2U	GF	TM

Please make a selection from each category below:

SERIES

- 2A** 2½" (63mm) Brewery-Flow Pressure Gauge
4A 4" (100mm) Brewery-Flow Pressure Gauge

PRESSURE RANGE*

- B** 0 to 30 psi (2 BAR)
C 0 to 60 psi (4 BAR)
D 0 to 100 psi (7 BAR)
E 0 to 160 psi (11 BAR)
F 0 to 200 psi (14 BAR)
G 0 to 300 psi (21 BAR)
H 0 to 400 psi (28 BAR)
I 0 to 600 psi (41 BAR)
K 0 to 1,000 psi (70 BAR)
M 30" Hg to 30 psi (-1 to 2 BAR)
N 30" Hg to 60 psi (-1 to 4 BAR)
O 30" Hg to 100 psi (-1 to 7 BAR)
P 30" Hg to 150 psi (-1 to 10 BAR)
Q 30" Hg to 200 psi (-1 to 14 BAR)
R 30" Hg to 300 psi (-1 to 21 BAR)

*Standard scales are in PSI only. For dual scales, after the pressure range add letter B for PSI/BAR, K for PSI/Kg/cm², P for PSI/KPa.

FITTINGS

(Fittings available in 1½", 2")

- U** Tri-Clamp®

(Specify size, then fitting type such as 1½"U for a 1½" Tri-Clamp fitting.)

FILLED CASE

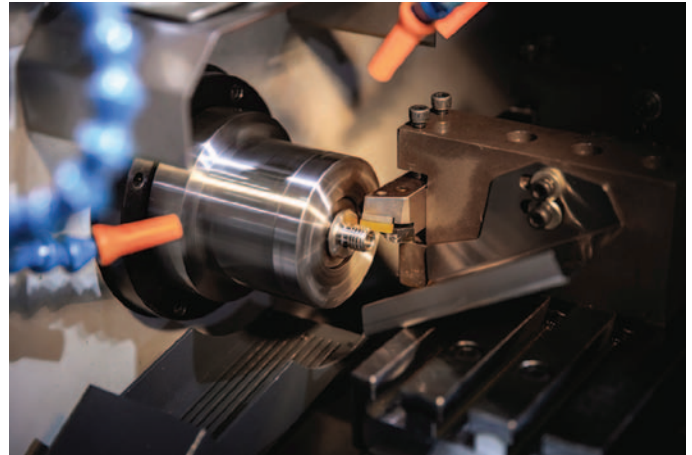
- GF** Glycerine Filled
NF No Fill (Dry Case)
04 Other (Specify)

MOUNT

- BT** Bottom Mount
RT Right Side Mount
LF Left Side Mount
TP Top Mount
BK Back Mount



OUR CAPABILITIES



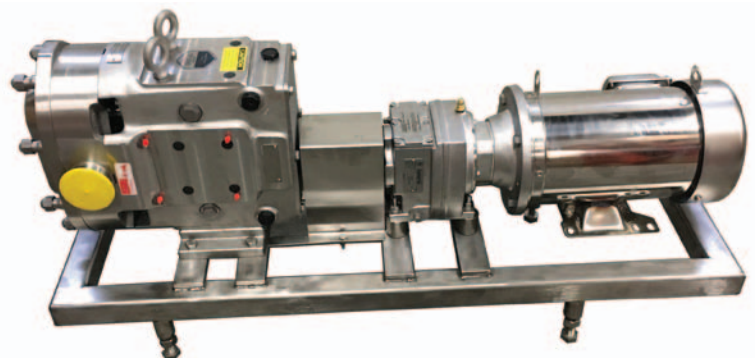
Harco is a Peterborough-based company that is a leader in the supply, design, fabrication and repairs of sanitary components and stainless steel equipment for the pharmaceutical, food, dairy, brewery, and beverage processing industries.

We are proud to provide quality service and support to customers throughout North America since 1964. Offering high quality brands and materials, our custom work is of the highest quality and we ensure it is upheld from start to finish.

Harco offers a full range of sanitary stainless steel processing equipment, from pumps and valves, mixers and blenders to homogenizers and separators and custom fabrications. We back what we sell by offering extensive parts, repairs and customer support.

We're committed to creating forward-thinking solutions that drive your bottom line and keep your business top of mind.

**Visit our website for more information at
<https://www.harcosupply.com/capabilities/>**





Product Line Card

Supply House to the Processing Industries Since 1964

Harco partners with leading manufacturers in the industry to bring you an innovative range of sanitary and hygienic processing equipment and supplies. With experience in design, manufacturing and support, our partners are selected for their quality, reliability, and advanced products.

