

LEVEL INDICATION | BULK LEVEL & SIGHT GLASS
SERIES 570 COOPER'S HAWK



Features

- Sight glass style tank gauge for bulk product tanks and barrels.
- High contrast back-mounted 2-band graduated scale is easy to read and accurate.
- Dual scale measures liquid height, as well as flow rate for pump calibrations.
- PTFE and Stainless Steel trim standard.



FEATURES

Sight Glass Tank Gauge

- Provides direct level indication for bulk product tanks or barrels/drums.
- Liquid level indicated in sight glass matches level in bulk product tank or barrel.

High Contrast Graduated Scale

- Standard high contrast black on yellow scale insert for accurate and easy reading.

Dual height and flow rate scales

- Standard 2-band graduated scale provides liquid height measurement (in [cm]) and flow rate¹ (in [L/day]).
- 55-Gal variant for horizontal 55 gal / 208 L drums provides liquid volume measurement ([L] and [gal]) and flow rate¹ ([L/day] and [qts/day]) on the same rate scale.

Corrosion resistant trims standard

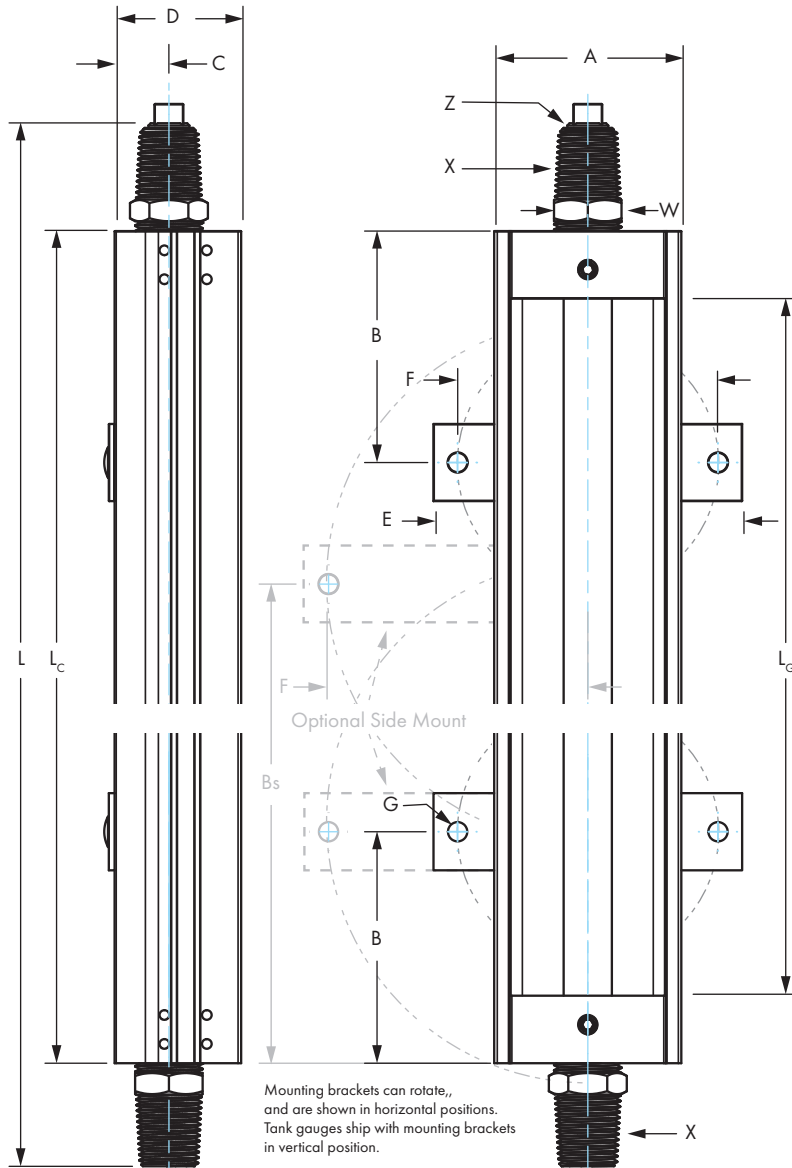
- Standard wetted parts are stainless steel nipples, borosilicate glass and PTFE seals.
- Plated steel connections also available.
- Optional FEPM and PTFE-FKM seals available.

¹ See FLOW RATE to see how to use a Series 570 Cooper's Hawk Tank Gauge to measure flow rates.

OPERATING SPECIFICATIONS

Measurement Principle	Sight Glass
Connection	2 × 1/2 MNPT + 1/4 FNPT Vent
Maximum Height	96 in.
Process Temperature	- 40 °C to 80 °C
Ambient Temperature	- 40 °C to 70 °C
Operating Pressure	6 psi

DIMENSIONS



Dimension	Value [in.]
A Case Width	2.4
B Mounting Hole Offset	3.0
C Nipple Centreline	0.8
D Case Depth	1.7
E Bracket Width	4.0
F Mounting Hole Span	3.4
G Mounting Hole Dia	1/4
L Overall Length	See SIZING
Lc Case Length	= L - 2-3/4
Lg Visible Sight glass Length	= Lc - 1-3/4
W Wrench Flat	7/8
X Connection	1/2 MNPT
Z Vent connection	1/4 FNPT

Side Mount

The side mount option moves the top mounting bracket to a fixed position above the bottom bracket, and both brackets are offset outward. These dimensions are fixed for all sizes of side mount Series 570 Cooper's Hawk Tank Gauges.

Dimension	Value [in.]
B Lower Mounting Bracket Height	3.0
Bs Upper Mounting Bracket Height	25.8
F Centreline to Mounting Hole	3.4



PARTS LIST & MATERIALS

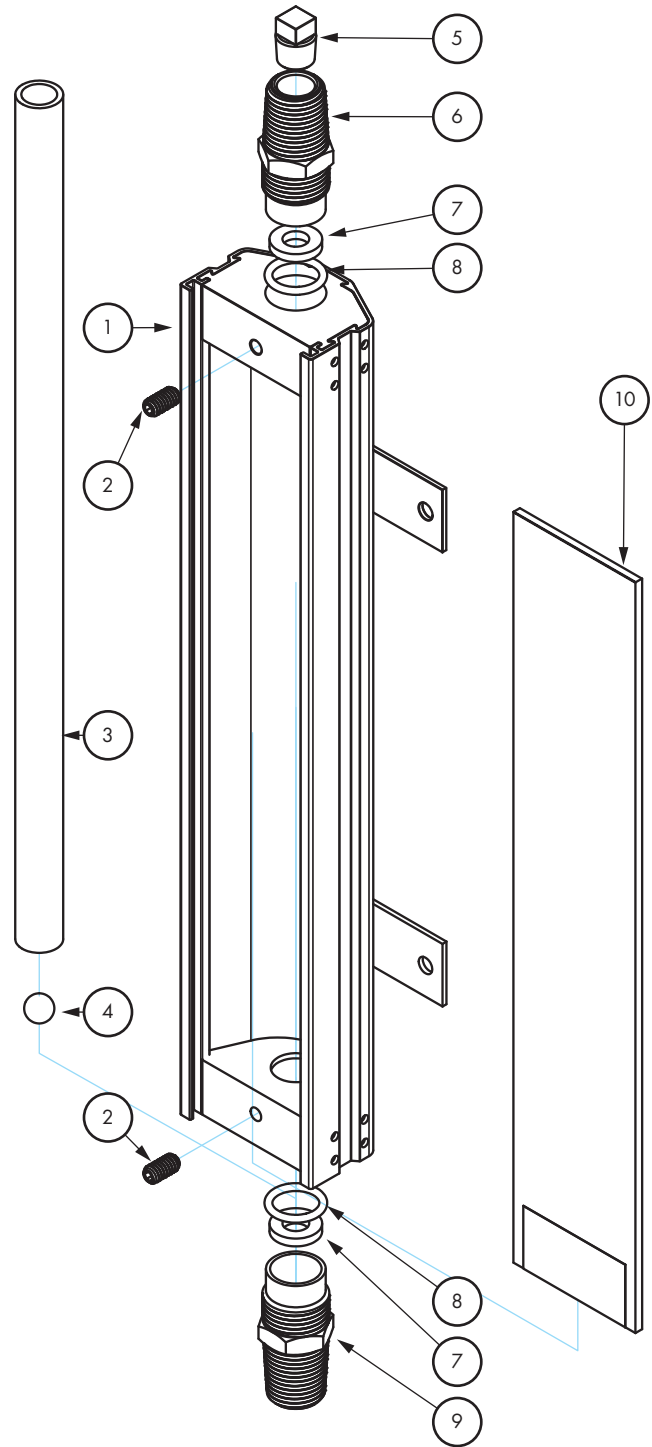
Item	Part Name	Material
1	Case & Bracket Assembly	6061 AL
2	Set Screws	18-8 SS
3	Sight Glass	Borosilicate Glass
4	Sight Ball	Polypropylene
5	1/4 NPT Vent Plug	HDPE
6	Top Nipple	316SS (CS ZP Opt)
7	Glass Bumper	ePTFE
8	O-Ring	PTFE
9	Top Nipple	316SS (CS ZP Opt)
10	Cover	Acrylic

Note: not all parts shown.

SIZING

Series 570 Cooper's Hawk Tank Gauges are stocked in 12 in. size increments between 12 in. [1 ft.] and 72 in. [6 ft.]. Intermediate sizes between 14 in. and 96 in. [8 ft.] are available in 2 in. increments.

Size	L [in.] (see Dimensions)
Barrel (55 Gal drum Diameter)	22-1/4
12 in. [1 ft.]	16
24 in. [2 ft.]	28
36 in. [3 ft.]	40
48 in. [4 ft.]	52
60 in. [5 ft.]	64
72 in. [6 ft.]	76



TESTING

Series 570 Cooper's Hawk Tank Gauges are leak and pressure tested prior to packaging.



PACKAGING

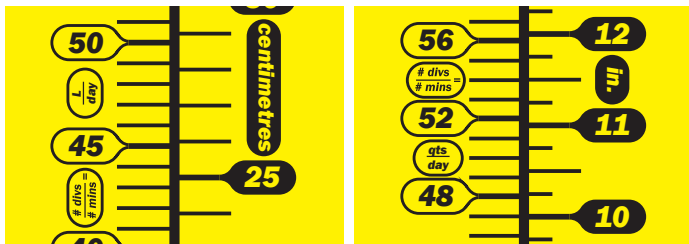
Series 570 Cooper's Hawk Tank gauges are boxed individually and include marker clip. Although steps are taken with glass supports, box padding and labelling, care should still be taken when handling to prevent broken glass.



SCALE INSERT OPTIONS

All sizes, except Barrel

The Series 570 Cooper's Hawk tank gauge comes standard with black on yellow 2-band scale insert. The HEIGHT band (right side) provides level measurement and the RATE band (left side) provides flow rate. The standard metric insert provides HEIGHT in [cm] and RATE in [L/Day]. An optional US insert is available, with HEIGHT in [in] and RATE in [qts/day]



Standard metric scale insert (Left), and optional US scale insert (Right).

Barrel

The Barrel size Series 570 Cooper's Hawk tank gauge comes standard with a 4-band metric + US scale insert providing direct volume measurement in [L] + [gal] as well as rate measurement in both [L/day] and [qts/day].



FLOW RATE

Each 2- and 4-band graduated scale available for the Series 570 Cooper's Hawk tank gauge allows measurement of flow rate out of the gauge using the calibrated RATE band and optional isolation valve. When isolated from the tank, the pump or diffuser draws product directly from the Series 570. By measuring the change in liquid level on the RATE band over a known period of time, the volume can be determined using the method below:

1. Note the starting liquid level point on the RATE band with the included marker.
2. With the pump running, isolate the Series 570 from the tank and start a timer.
3. For most accurate results, run the test long enough such that the change in liquid level covers 50% to 75% of the height of the Series 570.
4. Stop the timer and note the ending liquid level.
5. Calculate flow rate, Q, using this formula:

$$Q = (\text{Start Level} - \text{End Level}) \times \frac{60 \text{ s}}{\text{test duration [s]}}$$

Examples

- a.) Standard metric scale. Start level = 100. End Level = 30. Elapsed time = 60 s.
 $Q = (100 - 30) \times (60 / 60) = (70) \times (1) = 70 \text{ L/day}$
- b.) US Scale. Start level = 92. End level = 34. Elapsed time = 20 s.
 $Q = (92 - 34) \times (60 / 20) = (58) \times (3) = 174 \text{ qts/day}$
- c.) Metric Scale. Start level = 200. End level = 71. Elapsed time = 5 minutes.
 $Q = (200 - 71) \times (60 / (5 * 60)) = (129) \times (0.2) = 25.8 \text{ L/day}$

ORDERING INFORMATION

Most 1 ft increment Series 570 Cooper's Hawk Tank Gauges are in stock for quick delivery.

Size: **CHWK** - **H H** - Options: **T S M V R**

[H] Size		[T] Trim		[S] Seals		[M] Mounting		[V] Iso. Valve		[R] Scale Options	
Selection	Flag	Selection	Flag	Selection	Flag	Selection	Flag	Selection	Flag	Selection	Flag
Barrel	BA	Plated Steel	0	PTFE	0	Standard	0	None	0	Metric, Blk / Yel	0
12 in [1 ft]	12	Stainless	1	FEPM (Aflas)	1	Side	1	1/4 turn, Brass	1	US, Blk / Yel	1
...	...			PTFE-FKM	2			1/4 turn, SS	2	Metric, Blk / Wht	2
72 in [6 ft]	72										
...	...										
14 in	14										
16 in	16										
...	...										
96 in [8 ft]	96										

BOLD TEXT INDICATES STANDARD / STOCK OPTIONS

Examples

Series 570 Cooper's Hawk, 48 in, CS Trim, PTFE Seals, STD mount, No Valve, Metric Scale
CHWK-48-00000

Series 570 Cooper's Hawk, 60 in, SS Trim, PTFE Seals, STD mount, No Valve, Metric Scale
CHWK-60-10000

Examples

Series 570 Cooper's Hawk, 48 in, sS Trim, PTFE Seals, Side Mount, No Valve, US Scale
CHWK-48-10101

Series 570 Cooper's Hawk, Barrel, SS Trim, PTFE Seals, STD mount, SS Valve, STD Scale
CHWK-BA-10020

