

SANITARY SIGHT GLASSES

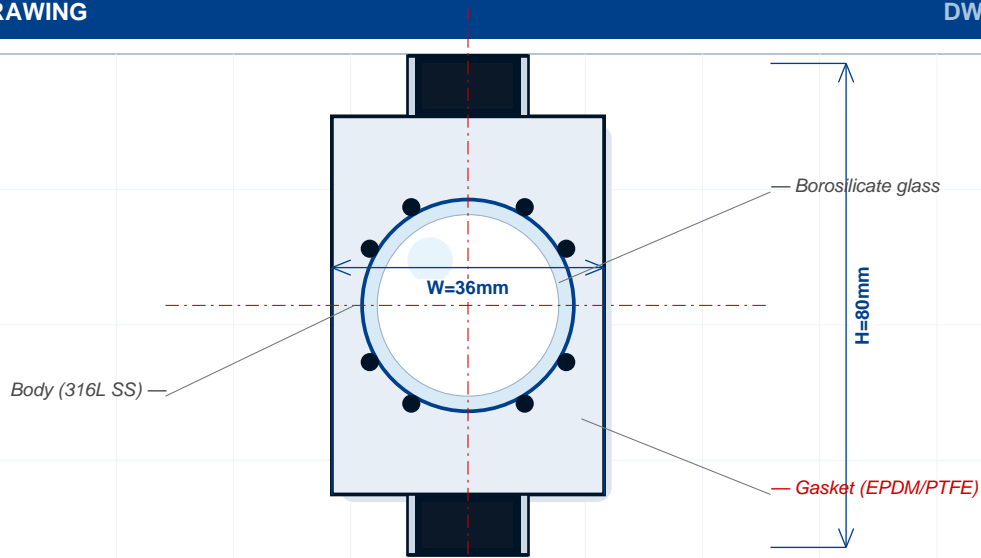
IN-LINE & TANK — BOROSILICATE GLASS

Sanitary sight glasses for visual inspection of process flow, fluid level, foam, color and clarity. In-line tubular type for installation in pipework, or flanged tank-mounted type for vessel viewing. Borosilicate glass (DIN 7080 or DIN 8902) with 316L stainless steel body provides high pressure and thermal shock resistance. Available with integrated illumination, wiper or spray cleaning options.

BODY	GLASS	SIZE RANGE	PRESSURE	TEMPERATURE	STANDARD
316L SS	Borosilicate	DN15 – DN100	PN10 (10 bar)	-10 to +180°C	3-A Sanitary

TECHNICAL DRAWING

DWG: CE-SG-001



CROSS-SECTION — IN-LINE SIGHT GLASS

2" DN50 · Bolted glass assembly · CIP compatible

<b>CASPIAN EDGE INC.</b>	
NORTH YORK, ON, CANADA	
DWG NO: <b>CE-SG-001</b>	SCALE: <b>NTS</b>
UNIT: <b>mm</b>	VIEW: <b>CROSS-SECTION</b>

IN THIS DATASHEET

- PAGE 1** Technical drawing with dimensions and component callouts
- PAGE 2** Full technical specifications, materials and pressure-temperature data
- PAGE 3** Standards compliance, certifications and documentation
- PAGE 4** Applications, installation, maintenance and RFQ form

## SANITARY SIGHT GLASSES

## IN-LINE &amp; TANK — BOROSILICATE GLASS

## DESIGN SPECIFICATIONS

## SECTION 1

Type	In-line tubular / Tank flanged
Glass Material	Borosilicate DIN 7080
Glass Type	Tempered, polished
Body	316L SS
Sealing	EPDM/PTFE/Silicone gaskets
Connection	Tri-Clamp / Flanged
Illumination	LED option (24V DC)
Cleaning	Wiper / Spray option

## OPERATING CONDITIONS

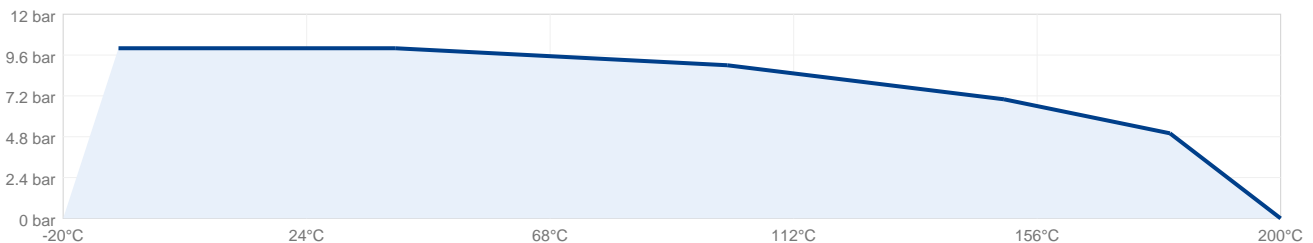
## SECTION 2

PRESSURE RATING		TEMPERATURE RANGE	
Max Working Pressure	10 bar	Process	-10 to +180 °C
Max Test Pressure	15 bar	Thermal Shock	150 °C Δ
Thermal Shock	Δ150 °C	Steam SIP	+135 °C
Vacuum	-0.95 bar	CIP Hot	+85 °C

## PRESSURE-TEMPERATURE RATING CHART

## SECTION 3

PRESSURE-TEMPERATURE RATING



## SURFACE FINISH OPTIONS

## SECTION 4

DESIGNATION	RA (MM)	RA (MIN)	METHOD	APPLICATION
Standard	≤ 0.8	≤ 32	Mechanical polish	Food, dairy, beverage
Premium	≤ 0.5	≤ 20	Mech. polish + buff	Pharmaceutical
EP (BPE SF4)	≤ 0.38	≤ 15	Electropolish	Biotech, high-purity
Mirror	≤ 0.25	≤ 10	EP + final buff	Critical bioprocess

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## MATERIALS OF CONSTRUCTION

## SECTION 5

PART	MATERIAL	FUNCTION	SPEC
Body	316L SS	Pressure containment	ASTM A479
Glass	Borosilicate 3.3	Viewing	DIN 7080 / DIN 8902
Cushion Gasket	PTFE	Glass protection	FDA
Process Gasket	EPDM/Silicone	Sealing	FDA 21 CFR 177
Cover Ring	316L SS	Glass retention	ASTM A479
Fasteners	A4-80 SS	Closure	ISO 3506
LED (option)	24V DC	Illumination	IP65

## 316L CHEMICAL COMPOSITION

## SECTION 6

ELEMENT	SYMBOL	MIN %	MAX %	FUNCTION
Chromium	Cr	16.0	18.0	Corrosion resistance
Nickel	Ni	10.0	14.0	Ductility, toughness
Molybdenum	Mo	2.0	3.0	Pitting resistance
Carbon	C	—	0.03	Low carbon (L grade)
Manganese	Mn	—	2.0	Deoxidizer
Silicon	Si	—	0.75	Deoxidizer
Phosphorus	P	—	0.045	Impurity (limit)
Sulfur	S	—	0.030	Impurity (limit)

## SIZE CHART &amp; DIMENSIONS

## SECTION 7

NOM.	DN	OD (MM)	GLASS Ø (MM)	L (MM)	WEIGHT (KG)
½"	15	50.5	25	80	0.6
1"	25	50.5	38	80	0.8
1½"	38	64.0	50	100	1.5
2"	50	77.5	63	120	2.4
2½"	63	91.0	80	140	3.5
3"	76	104.0	100	160	5.0
4"	100	119.0	125	180	7.5

## STANDARDS &amp; CERTIFICATIONS

## SECTION 8

STANDARD	DESCRIPTION	STATUS
3-A 09-11	Sight glasses & fittings	Compliant
DIN 7080	Round sight glasses	Compliant (glass)
DIN 8902	Toughened sight glasses	Compliant (option)
EHEDG Type EL	Hygienic equipment	Compliant
FDA 21 CFR 177	Food contact (seals)	Compliant
EC 1935/2004	Food contact materials	Compliant

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TYPICAL APPLICATIONS

SECTION 9

FOOD & BEVERAGE

- Filling line shut-off
- Product transfer lines
- CIP/SIP circuits
- Storage tank outlets
- Sampling stations
- Mixing & blending

DAIRY

- Pasteurization circuits
- Cheese processing
- Yogurt production
- Milk separators
- Cream lines
- 3-A compliant systems

BREWING & WINE

- Wort transfer
- Fermentation tanks
- Bottling lines
- Brewhouse CIP
- Filtration
- Carbonation systems

INSTALLATION GUIDELINES

SECTION 10

**Pre-Installation:** Inspect glass for cracks, chips or scratches. Verify cushion gasket (PTFE) and process gaskets are correct size and material. **Assembly:** Place process gasket → glass with PTFE cushion gasket → cover ring → bolts in sequence. Tighten bolts in cross-pattern, gradually increasing torque. **Torque:** Apply specified torque (typically 8–12 N-m for M8 bolts) using calibrated wrench. Over-torque WILL crack the glass. **Cleaning:** CIP compatible — circulating cleaning solutions can be used. Avoid abrasive cleaning of glass surface. If wiper installed, ensure smooth operation. **Thermal Shock:** Do not subject glass to >150°C temperature change. Allow gradual heating/cooling. Steam SIP must follow proper warm-up procedure. **Inspection:** Replace glass immediately if any crack, chip or surface scratch observed.

MAINTENANCE SCHEDULE

SECTION 11

INTERVAL	ACTION	NOTES
Daily	Visual check	Cracks, leaks, fogging
Weekly	Clean exterior	Mild detergent, soft cloth
Monthly	Bolt torque check	Re-torque to spec
Quarterly	Gasket inspection	Replace if compressed
Annually	Glass inspection	Replace if any damage
As needed	Full disassembly	Deep cleaning

REQUEST A TECHNICAL QUOTATION

Send your specifications and we will respond with detailed pricing, lead time and documentation.

INCLUDE IN YOUR RFQ:

Quantity · Size (DN) · Material grade · Seal material · Surface finish · Required certifications · Delivery date

SUBMIT RFQ →

[caspiannedge.com/rfq](https://caspiannedge.com/rfq)