

Small Coolers CHX Series

COMPACT SHELL & TUBE

SHELL & TUBE

REMOVABLE HEAT-TRANSFER BUNDLE



Performance Notes

- CHX small coolers provide compact shell-and-tube heat transfer for liquid, oil and gas cooling duties. Their small diameter range makes them useful where space, cost and serviceability all matter.
- Shell diameter range in supplied data: 2-8 in..
- Tube length range in supplied data: 8-72 in..
- Tube-pass arrangements in supplied data: 1-Pass, 2-Pass, 4-Pass.

Ratings		Materials
Shell pressure 300 PSI		Shell Brass
Tube pressure 150 PSI		Tubes Copper
Maximum temperature 300°F		Tubesheet / bonnets Brass / Cast Iron

Series Configuration

Shell diameter	Tube OD	Tube passes	Tube lengths	Surface area
2-8 in.	3/4" O.D., 5/8" O.D.	1-Pass, 2-Pass, 4-Pass	8-72 in.	1.2-124 ft²

Ratings, materials and dimensional ranges above are summarized from the supplied HeatX/Bell & Gossett catalog spreadsheet. Exact construction varies by model and option code.

CHX Series Size Range & Model Guide



CATALOG RANGE FROM SUPPLIED DATA

Shell dia.	Catalog records	Tube length	Surface area	Passes	Tube-side conn.
2"	4	8 in.	1.2 ft ²	1-Pass	0.75" NPT
3"	36	8-24 in.	2.4-7.4 ft ²	1-Pass, 2-Pass, 4-Pass	1.50" NPT, 1.5" NPT, 1.0" NPT +
4"	36	14-36 in.	8.3-21.2 ft ²	1-Pass, 2-Pass, 4-Pass	2.0" NPT, 1.25" NPT, 0.75" NPT
5"	36	14-36 in.	9.1-24 ft ²	1-Pass, 2-Pass, 4-Pass	2.5" NPT, 1.5" NPT, 1.0" NPT
6"	48	24-60 in.	23-56 ft ²	1-Pass, 2-Pass, 4-Pass	3.0" NPT, 2.0" NPT, 1.5" NPT
8"	60	24-72 in.	41-124 ft ²	1-Pass, 2-Pass, 4-Pass	3.0" NPT, 2.5" NPT, 2.0" NPT

Construction Summary

Feature	Catalog summary
Tube construction	3/4" O.D., 5/8" O.D.
Shell material	Brass
Tube material	Copper
Tubesheet	Brass
Bonnet / head	Cast Iron
Tube passes	1-Pass, 2-Pass, 4-Pass
Pressure / temperature	Shell: 300 PSI; Tube: 150 PSI; Temp: 300°F

The range table is intended as a family-level guide. Use the complete part number and current dimensional submittal when replacing an installed exchanger.

Representative CHX Models

SELECTED FROM THE SUPPLIED PART-NUMBER FILE

Part / model	Shell	Length	Surface	Tube conn.	Passes
5-030-02-008-001	2"	8"	1.2	0.75" NPT	1-Pass
5-030-03-014-005	3"	14"	4.3	0.75" NPT	4-Pass
5-030-04-014-001	4"	14"	8.3	2.0" NPT	1-Pass
CHX424-2L	4"	24"	14.1	1.25" NPT	2-Pass
5-030-05-014-005	5"	14"	9.1	1.0" NPT	4-Pass
5-030-05-036-001	5"	36"	24	2.5" NPT	1-Pass
CHX624-1S	6"	24"	23	3.0" NPT	1-Pass
5-030-06-048-004	6"	48"	45	2.0" NPT	2-Pass
CHX660-4S	6"	60"	56	1.5" NPT	4-Pass
CHX836-1S	8"	36"	62	3.0" NPT	1-Pass
5-030-08-060-004	8"	60"	103	2.5" NPT	2-Pass
CHX872-4S	8"	72"	124	2.0" NPT	4-Pass

Model / Part-Number Identification

Bell & Gossett heat-transfer equipment exists under multiple numbering generations. The supplied data includes current 5-xxx drawing-style numbers as well as legacy model designations on some series. For replacement work, retain the complete original model, part number and nameplate information rather than inferring construction from a shortened designation.

Selection Inputs

- Heat load or required duty
- Hot- and cold-side fluids
- Entering and leaving temperatures
- Flow rates on both sides
- Available pressure drop
- Design pressure and temperature
- Fouling allowance and fluid properties
- Required materials, code stamping and double-wall requirement where applicable

CHX Application & Specification Guide



ENGINEERING CHECKLIST

Typical Applications

- Hydraulic oil cooling
- Lube oil cooling
- Water-to-water cooling
- Small process duties

Specification Notes

- Series: Bell & Gossett CHX
- Configuration: Compact Shell & Tube
- Size the exchanger on the actual fluid properties, temperatures, flow rates and allowable pressure drops.
- Confirm the exact model pressure rating, connection size, materials and tube-pass arrangement before release.
- Provide service clearance for bonnet/head removal and bundle withdrawal where the construction is removable.
- For steam service, provide proper condensate drainage and venting. For liquid service, arrange piping to keep the exchanger flooded and ventable.
- Where potable or contamination-sensitive fluids are involved, confirm local code requirements for double-wall construction and leak detection.

Source & Data Basis

Catalog values and representative part numbers in this HeatX guide are derived from the supplied Bell & Gossett series spreadsheet dated 8/9/2026. Product-family descriptions were cross-checked against official Bell & Gossett / Xylem literature, including: Bell & Gossett CHX Small Coolers; Xylem/Bell & Gossett heat exchanger literature.

This document is a HeatX selection and replacement reference, not a substitute for the current manufacturer-certified submittal. Dimensions and ratings should be verified for the exact part number before fabrication, purchase or installation.

