



# Sabroe COSB shell-and-tube condenser

COSB condenser with flanged end covers

COSB is designed for condensation on the shell side outside the tubes and heating of a secondary fluid on the tube side. The capacity range is between 50 kW and 10,000 kW

The heat exchanger is designed for heating of secondary fluid mediums like water, ethylene, propylene glycol and other non-corrosive mediums.

## Range

The COSB condenser is available in more than 100 different configurations. The COSB is configured with common steel pipes and is a cost-optimal alternative to the CORB condenser.

The unit can be configured with one to six passes on the secondary side to match the capacity and secondary flow. All connections, except one-pass, are equipped with counter flanges. The reversing covers are equipped with connections for draining and air purging.

The COSB exchanger is approved for operation between 150°C and -10°C and 40/-1 barg on the shell side, and between 80°C and 0°C and 10/0 barg on the tube side.

Features	Benefits
One to six passes on the secondary side	Various configurations of tube patterns accommodate different flow and capacity ratios
Calculation and product selection via COMP1	Simplified product selection and evaluation of thermal performance in part-load conditions
Common steel tube material	Cost-effective option for systems without corrosive elements in the brine



## COSB – Capacity and product range

Type	Shell diameter	Shell length	Tube side passes	Shell side inlet		Shell side outlet		Tube side inlet		Tube side outlet		Capacity range*
	mm	m		Size	Count	Size	Count	Size	Count	Size	Count	kW
21XXYY	207	1.5/2/2.5	1/2/4	DN40	1/2	DN32	1/2	DN80/DN125	1	DN80/DN125	1	75-100
27XXYY	260	2/2.5/3	1/2/4	DN40/DN50	1/2	DN32/DN40	1/2	DN100-DN150	1	DN100-DN150	1	75-175
32XXYY	311	2/2.5/3/4	1/2/4	DN50/DN65	1/2	DN40/DN50	1/2	DN125-DN200	1	DN125-DN200	1	150-350
41XXYY	403	2/2.5/3/4/5	1/2/4	DN65-DN80	1/2	DN50-DN80	1/2	DN150-DN250	1	DN150-DN250	1	250-850
50XXYY	492	2.5/3/4/5/6	1/2/4	DN80-DN100	1/2	DN 65-DN100	1/2	DN200-DN300	1	DN200-DN300	1	350-1500
60XXYY	594	2.5/3/4/5/6	1/2/4	DN100-DN125	1/2	DN80-DN100	1/2	DN250-DN400	1	DN250-DN400	1	550-2250
70XXYY	684	3/4/5/6	1/2/4	DN125-DN150	1/2	DN100-DN125	1/2	DN300-DN500	1	DN300-DN500	1	750-3250
10XXYY	992	3/4/5/6	1/2/4/6	DN150-DN200	1/2	DN100-DN150	2	DN500-DN700	1	DN500-DN700	1	1000-4500
12XXYY	1190	4/5/6	1/2/4/6	DN200-DN250	2	DN150-DN200	2	DN600-DN800	1	DN600-DN800	1	1750-6000
14XXYY	1384	4/5/6	1/2/4/6	DN250-DN300	2	DN200	2	DN700-DN900	1	DN700-DN900	1	2000-10000

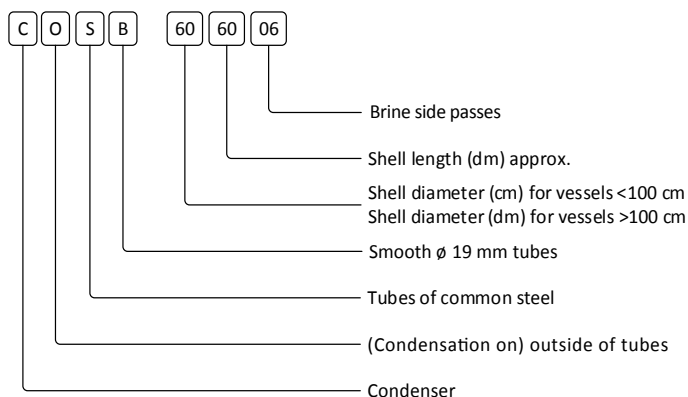
\* Calculations are based on a 5K temperature change on the secondary side and a maximum temperature difference between secondary outlet and refrigerant of 5K

### Options

- Single or double connections on the refrigerant/shell side
- Single or double connections on the brine/tube side
- Large range of brine connection sizes

### Type designation for COSB

All Sabroe shell-and-tube heat exchangers follow a standard key for naming and identification. For the COSB product line, the name of a given configuration can be identified by the key below.



All information is subject to change without notice.

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