

# Sampling Cooler

**DKSPC Series** 

- · For boiler water, steam, or condensate sampling
- Stainless steel body and coil tube to minimize corrosion
- · Counter current flow for efficient cooling

### **DKSPC Series Sampling Cooler**



#### Features

- Single or double spiral coil tube
- All stainless steel materials
- Metal O-Ring endured high temperature sampling
- · Cooling inlet and outlet connections are available

#### Operation

It is important that there must be flowing before opening the inlet of sample valve. The below condition shall be followed for safe operation and accurate sampling.

- 1) Open the inlet valve of coolant and check whether it comes out through the outlet or not.
- 2) To get the coolant sample, the flow rate should be adjusted while the inlet valve is being opened slowly. Generally, 25°C should be perfect.
- 3) The coolant should be flowed for a while before you receive the sample on the container. By doing this you can get the exact sample for the analysis.
- 4) When you have enough sample firstly close the inlet valve and then, close the inlet valve of coolant.
- 5) After close the inlet sample valve, the coolant will be possible to drop of connector while the sample in the coil is being drained.

#### **Material of Construction**

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Component	Materials
1. Outer Pipe	Stainless Steel 304
2. Inner Pipe	Stainless Steel 304
3. Single / Double Coil Tube	ASTM A213 / A269 TP316
4. Metal O-Ring	Stainless Steel 316L
5. Upper Flange	Stainless Steel 304
6. Lower Flange	Stainless Steel 304
7. Bottom Plate	Stainless Steel 304
8. Hex. Head Bolt	Stainless Steel

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## **IDK-LOK**<sup>®</sup> Sampling Cooler

#### **Pressure-Temperature Ratings**

Part No.	Tube Description	Working Pressure for Cylinder	Working Pressure for Tube	Service Flow for below	Area
DKSPC-TS4T-12N8N-S	Tube O.D 1/4" x T0.035" (Single Spiral)	450psig@650°F 31 bar@343°C	3,400psig@1,000°F 234 bar@537°C	1,200 cc/min.	1.2 ft2
DKSPC-TD4T-12N8N-S	Tube O.D 1/4" x T0.035" (Double Spiral)	450psig@650°F 31 bar@343°C	3,400psig@1,000°F 234 bar@537°C	2,000 cc/min.	1.7 ft2
DKSPC-TS6T-12N12N-S	Tube O.D 3/8" x T0.049" (Single Spiral)	450psig@650°F 31 bar@343°C	2,500psig@700°F 172 bar@371°C	1,800 cc/min.	2.4 ft2
DKSPC-TD6T-12N12N-S	Tube O.D 3/8" x T0.049" (Double Spiral)	450psig@650°F 31 bar@343°C	2,500psig@700°F 172 bar@371°C	3,500 cc/min.	3.5 ft2

#### **Ordering Information and Dimensions**





<u>VIEW "P" - "P"</u>

Part No.	D	B1	В	G1	G2	E1	E2	L	С	N1	N2
DKSPC-TS4T-8N12N-S	1/4″	46.3	94	18.1	30	30	46.3	284.5	150	1/2″	3/4″
DKSPC-TD4T-8N12N-S	1/4″	46.3	94	18.1	30	46.3	46.3	284.5	150	1/2″	3/4″
DKSPC-TS6T-12N12N-S	3/8″	91.5	183	43	30.2	91.5	91.5	353.5	100	3/4″	3/4″
DKSPC-TD6T-12N12N-S	3/8″	91.5	183	43	30.2	91.5	91.5	353.5	100	3/4″	3/4″

\* Note : All dimensions shown are for reference only and are subject to change.

#### **Maintenance and Spare Part Ordering**

#### Maintenance – Disassembly and Reassembly

- 1. Remove the hex. head bolts at upper flange. (required spanner size 3/8") and separate the upper flange and lower flange.
- 2. Remove the old metal o-ring and clean the each part by appropriate cleaning solution.
- 3. Replace the new metal o-ring and tighten the hex. head bolts.
- 4. Tighten torque are about 48 N•m for DKSPC-TS4T/DKSPC-TD4T (Tube O.D 1/4") and 61 N•m for DKSPC-TS-6T/DKSPC-TD6T(Tube O.D 3/8").
- 5. After reassembly, shell test shall be performed at new metal o-ring showing visible leak.

#### Spare Part Ordering- Material: Metal O-Ring

Part No.	Metal O-Ring Ordering No.			
DKSPC-TS4T-8N12N-S				
DKSPC-TD4T-8N12N-S	90RG-05-1.01-5			
DKSPC-TS6T-12N12N-S	00DC 112 1 CT C			
DKSPC-TD6T-12N12N-S	90KG-113-1.01-5			



#### **Factory Test and Packaging**

Every Sampling Cooler is factory tested with nitrogen gas at working pressure for cylinder.

**DK-LOK** Fittings & Valves www.dklok.com

**DK-LOK** Corporation

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