

# Kest Sampling Unit,

Efficient sampling solution for pharma and bio-technology applications.

DS-00001 REV A

## Kest Sampling Unit, KSU

The Kest Sampling Unit has become a very popular sampling solution, it combines sampling at controlled conditions with cost efficiency and ease of use.

The operator simply penetrates a silicon membrane with a pencil point needle and collect a sample, when removing the needle, the membrane self-seals and the sample can be analysed.

Due to the design there is no need for CIP or SIP between the samples which saves a lot of time and money.

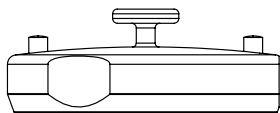
Each port can deliver 8 samples and stand a pressure up to 7 bars. The sample port is easily attached to a tank or pipe with a standard TriClamp connection like Kest-Lock. To increase the number of samples or vary sampling location you can easily add more sample ports.

## Sampling Containers

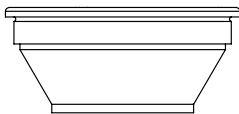
Any type of sampling container can be used with the Kest Sampling Unit if it fulfils the requirement of the needle.

Each system must be validated individually to ensure the functionality.

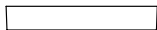
# Kest Sampling Unit KSU, general information



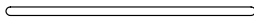
Lid



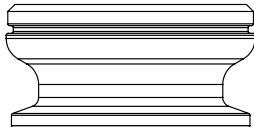
Compression Flange



Diaphragm



O-ring



Body

The Kest Sampling Unit is a self-sealing sampling port containing Lid, Compression Flange, Membrane, O-ring and Body.

The Kest Sample system is designed to be fitted to a standard TC-ferrule, ISO 2852. It works well with Kest-Lock or similar. The TC ferrule shall match the size on the Kest Sample Unit and the tube standard selected shall have a diameter that is bigger than the "d" measure see sketch on next page.

Before starting up a new batch a new diaphragm is mounted into the body, you screw on the compression flange and tighten with the knobs on the lid to seal the sample port. The lid is kept on the sample port when not using it to keep it clean.

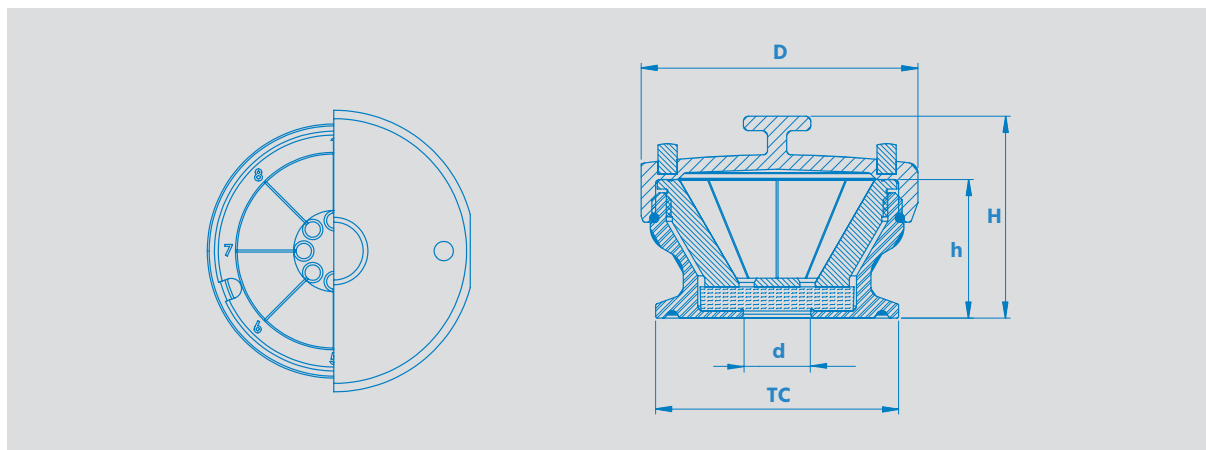
The Compression flange has 8 ports marked from 1 to 8. Each port can be penetrated one time each during a batch. If more samples is required you can mount more Sample Units on the tank.

The needle shall be a pencil point needle maximum 1 mm in diameter. Each sampling container and needle needs to be validated with the sampling port to ensure proper functionality.



THE KEST SAMPLE UNIT IS DESIGNED FOR CLAMP COUPLINGS AND GASKETS ACC. TO ISO 2852

# Kest Sample Unit KSU, general information



REF. NO	PRODUCT CODE	NO. OF PORTS	TC mm	D mm	d mm	H mm	h mm
100413	KSU-TC50/8P	8	50.5	60	14	40	30

## MECHANICAL SPECIFICATIONS

	Steel parts	Membrane	O-ring
Material grade	EN 1.4404/ASTM 316L	Silicone, platinum cured	EPDM
Material requirement	EN 10 272/10028-7, A479/A240 or SA479 SA240	FDA regulation CFR 177.2600, USP Class VI	
Documentation	Heat Certificate 3.1 acc. to EN 10 204		
Surface finish	Ra≤0.5 µm on surfaces in product contact		
Design Temperature	[0°C to +150°C] [+32°F to +302°F]		
Design Pressure	[-1 bar(g) to + 7 bar(g)] [-14.5 psi to +101.5 psi]		
pH range	1-14		
Standard	The Kest Sample Unit is designed for clamp couplings and gaskets acc. to ISO 2852		
Marking	The Kest Sample Unit is marked with material grade and heat number		
Packing	Each item is sealed in vacuum plastic bag, labelled with article code and packed in a box		
Quality Assurance	Each product is controlled and tested acc. to Kest Technology quality assurance system		

## Kest Sample Unit membrane KSUM

REF. NO	PRODUCT CODE	DESCRIPTION
100409	KSUM-TC50/8P	Penetration membrane 10 pieces
101422	KSUM-TC50/8P	Penetration membrane 100 pieces