

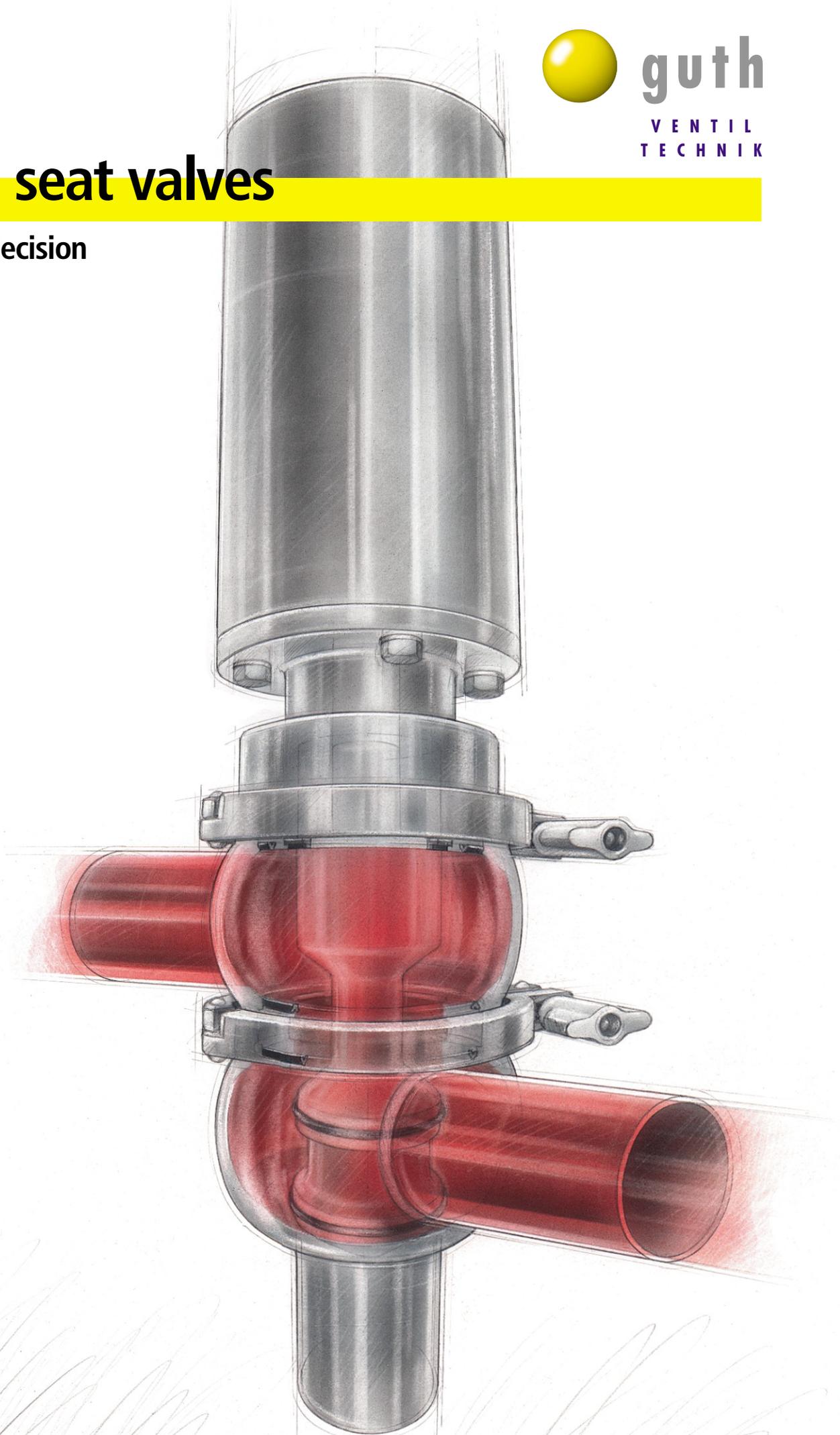


guth

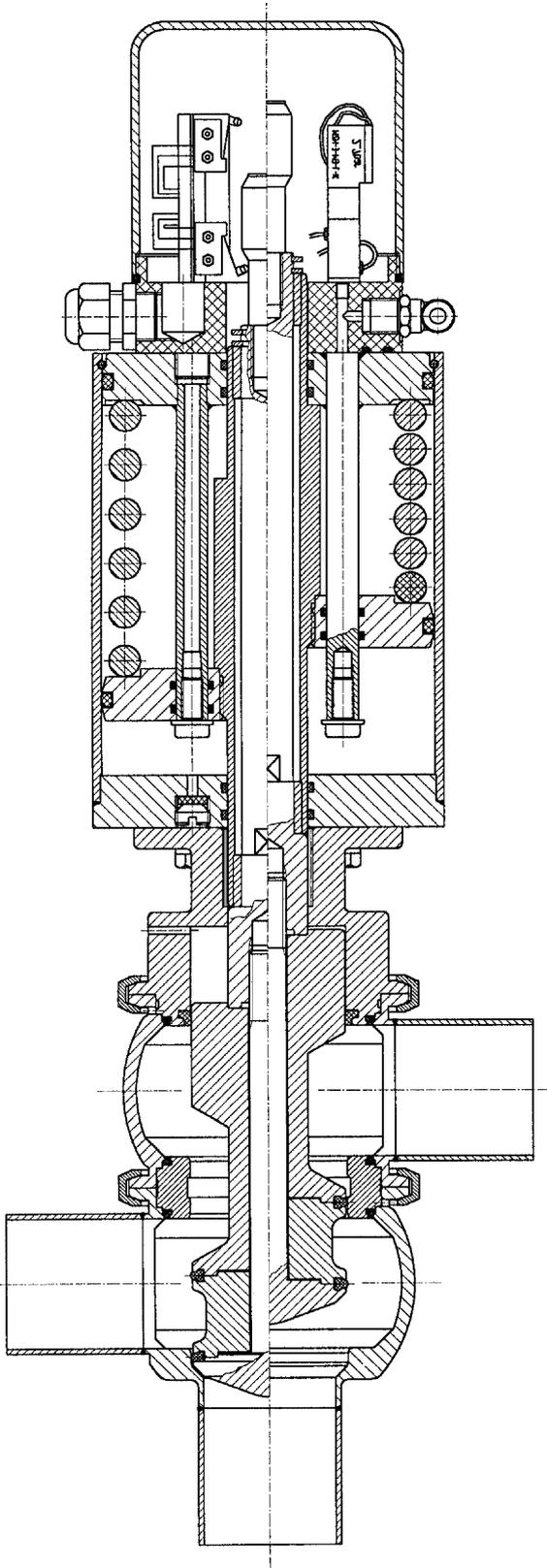
VENTIL
TECHNIK

Guth seat valves

A good decision



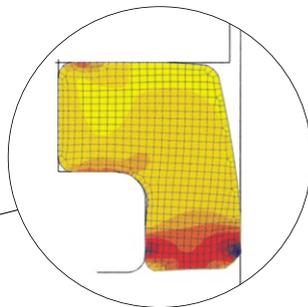
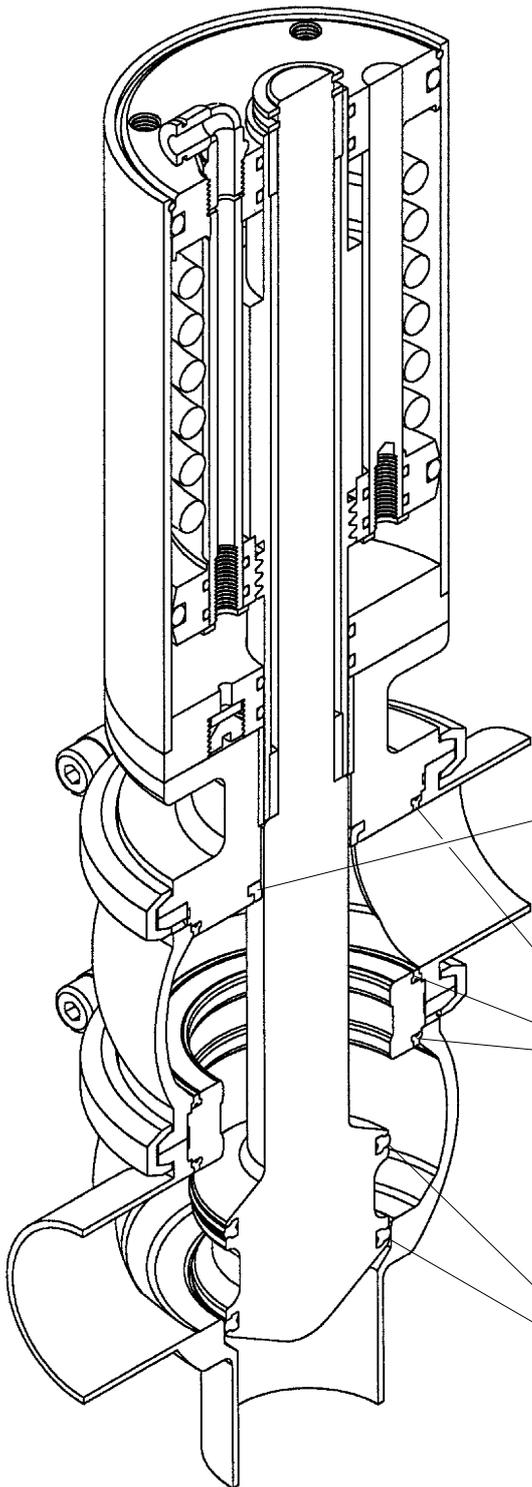
Functions



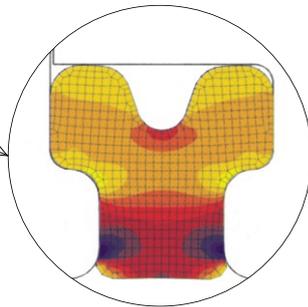
- Modular control head, suitable for bus systems, Stainless steel top
- Minimised number of different sealings per valve size
- Water hammer proof
- Modular assembly of the valve housings
- Dead space free housing, without sump or dome
- Product friendly and fluid flow optimizing design
- Solid valve housings
- Modular actuator, compact design, closed spring chamber
- The removal of one clamp ring enables the complete valve insert to be removed through the top of the valve housing
- Electropolished inner surface $R_a < 0.8\mu\text{m}$, shorter cleaning times
- No danger of injury, all moving parts are covered
- Symmetrical sealing
- Compact design, small overall height
- Easy and maintenance friendly exchange of seals without special tools
- Undivided one piece housing is possible
- The valves are produced in accordance with quality assurance and -control as per DIN EN ISO 9001.

Choice of seals using the FE-analysis

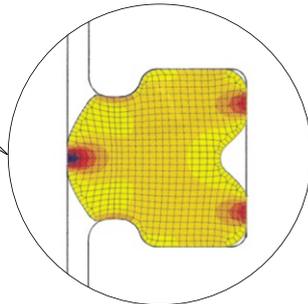
- All seals of the new VS-serie are developed using computer simulated models.
- This allowed to determine the various application possibilities and life times.
- All seals, as shown 3-dimensionally below, were selected in relation to pressure, temperature and various material parameters.
- Moreover the relation between motion and friction coefficient of seat- and shaft seals has been improved.
- Deformations, compression forces and peak stresses at various operation conditions could be simulated closest to practice whilst taking into account the effect to the material.
- The material selection was confirmed during subsequent test runs on the company's own test rig.



- Deformation of shaft seal:
 - pressure: 1 bar
 - temp.: 20°C



- Deformation of housing seal:
 - pressure: 1 bar
 - temp.: 20°C



- Deformation of seat seal:
 - pressure: 1 bar
 - temp.: 20°C

Technical data and dimensions

- Material**
 Product wetted parts: 1.4404 (AISI 316L)
 Parts not in contact with the product: 1.4301 (AISI 304)

- Seals**
 Standard: EPDM (FDA)
 Optional: Silicone (FDA)
 HNBR (FDA)

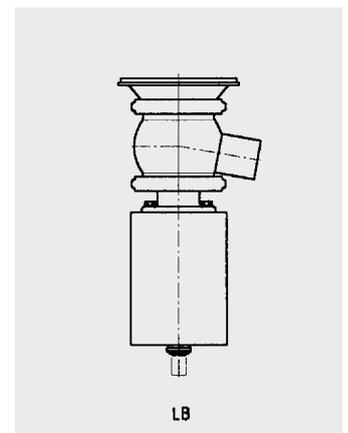
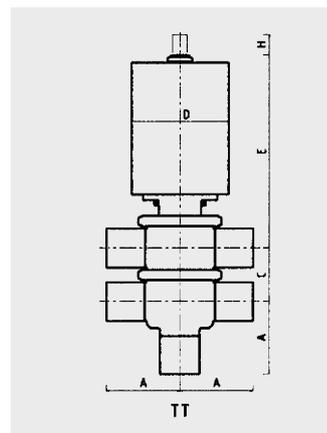
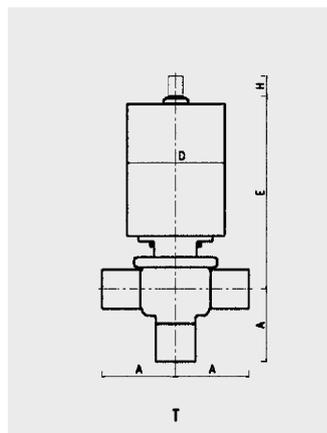
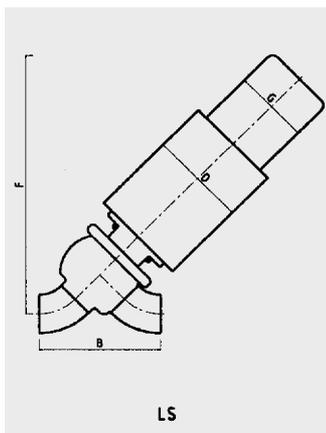
- Pressure range**
 Depending on size and specific execution
 Control air pressure: min. 5 bar / max. 7 bar
 Optional: waterhammer proof version

- Surfaces**
 Product wetted surfaces: Ra <math><0.8\mu\text{m}</math>
 Optional: electro polished

- Temperatures**
 Continuous operation: 120°C
 Cleaning: ca. 85°C
 Sterilization: 145°C

- Connections**
 Standard: Weld ends for tubes according to
 DIN 11850, line 2.
 Weld ends for tubes according to
 Inch O.D.-Tube

 Optional: other tube connections on demand



DN	A	B	C	D	E	F	G	H
25	65	110	50	75	165	270	103	23
40	90	142	62	102	280	345	103	28
50	100	167	74	102	285	360	103	28
65	115	191	90	102	295	370	103	28
80	130	227	111	133	300	395	103	28
100	140	262	130	133	310	415	103	28

Dimensions in mm