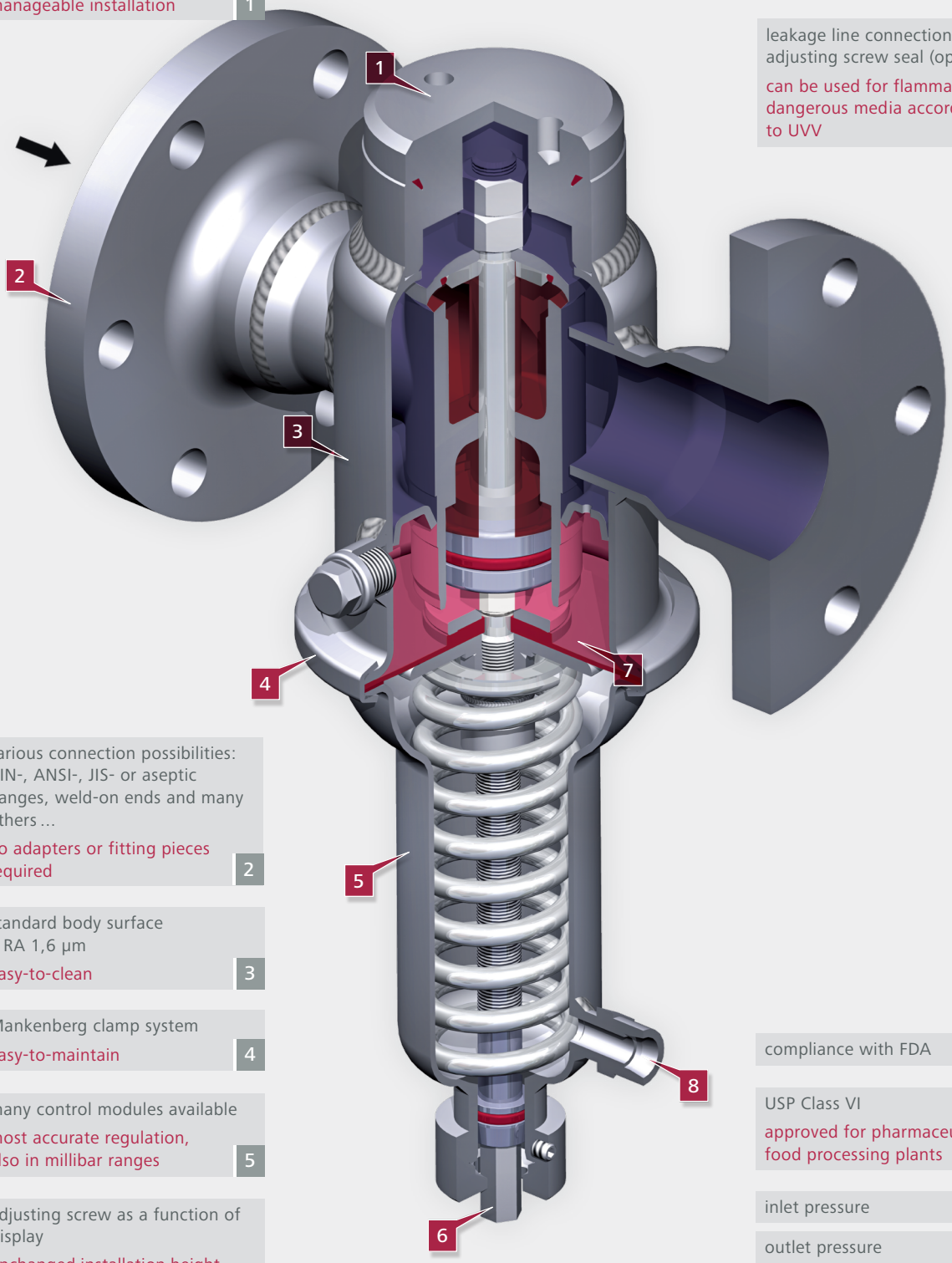
MANKENBERG

CrNiMo steel (316L), deep-drawn, corrosion-resistant, lightweight and compact
long operational lifespan, manageable installation 1

PTFE protecting foil
physiologically unobjectionable, can be exposed to a temperature range of up to 180 °C 7

leakage line connection and adjusting screw seal (option)
can be used for flammable and dangerous media according to UVV 8



various connection possibilities: DIN-, ANSI-, JIS- or aseptic flanges, weld-on ends and many others ...
no adapters or fitting pieces required 2

standard body surface ≤ RA 1,6 µm
easy-to-clean 3

Mankenberg clamp system
easy-to-maintain 4

many control modules available
most accurate regulation, also in millibar ranges 5

adjusting screw as a function of display
unchanged installation height, function externally visible 6

compliance with FDA

USP Class VI
approved for pharmaceutical and food processing plants

inlet pressure
outlet pressure
control pressure

Universal Valve made of Stainless Steel DM 652

Mankenberg Pressure Reducing Valves in Action

MANKENBERG

Universal Valve made of Stainless Steel

DM 652

single-seat straight-way valve with balanced cone for high flow rates | usable for liquids, gases and steam | completely made of deep-drawn CrNiMo-steel (316L) – surface finish of the body Ra ≤ 1,6 µm | adjusting screw as a function of display, easy-to-maintain owing to the clamp system | corrosion-resistant, very lightweight and compact | highest regulating accuracy thanks to a multitude of control ranges | various variants of convincing quality for your individual application | various connections and special versions available | can be actuated pneumatically, spring cap available with leakage line connection and adjusting screw seal

DN	15 - 50	PN	40
G	½ - 2	T	190 °C
P_2	0.02 - 12 bar	K_{VS}	5 - 22 m^3/h

HIGH GRADE

Pressure Regulation of Cleaning Steam in a Filling Plant

In the foodstuffs and pharmaceuticals industries as well as in hospitals, cleanliness alone is not sufficient but special attention must be paid to sterility. Without the use of sterile plants and packagings, the application life of food and medicine is considerably reduced.

In general, steam is used for the sterilisation of entire production plants. In its capacity as transport medium for thermal energy, steam ensures that all plant components are heated to abt. 121 °C and possibly existing germs are effectively killed. The steam used for this purpose is normally produced in a central steam generator and subsequently cleaned to correspond to the required quality and then reduced to the pressure level needed on the spot.

If, for example, cleaning of the entire plant is required after sterilisation liquids have been aseptically filled, clean steam in the secondary circuit is brought to the necessary pressure level by means of Mankenberg's pressure reducing valve DM 652. The valve made of deep-drawn stainless steel with DN 32 aseptic flanges and PTFE elastomers meets the severe requirements of the pharmaceutical industry and is also used in the foodstuffs industry.

The customary steam flow rates amount to 300 kg/h at a temperature of max. 190 °C. In this case the pressure reducing valve DM 652 reduces the inlet pressure of abt. 5 bar to a constant outlet pressure of 2.5 bar. The high volumetric flows and regulating accuracy of the DM 652 facilitate the fast and effective sterilisation of the plant. Short downtimes allow for longer production cycles and enhance the productivity of the plant.