



Nominal Diameters

150mm / 6" to 4000mm / 160"

Temperature range

-196°C / -320°F to +950°C /
+1.742°F

Pressure Class

PN10/16/25/40
ANSI 150/300/600/900/1500

Features

- absolute tightness at extreme temperatures up to 950°C
- triple offset design with inclined conical sealing system
- Special lengths and custom-made designs
- for both underground and overhead lines
- Good control characteristics

Advantages

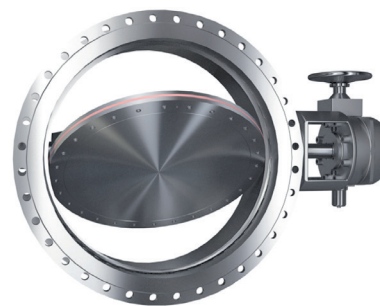
- Optimal tightness
- Withstands high temperatures
- Progressive sealing
- Reliable functioning in any position installed
- Capable of combining various operating tasks:
- flow regulation, shut-off function
- Great resilience, even at high switching frequency
- High flexibility due to welded construction

Options

- block & bleed
- quick-opening and quick-closing function
- Hard-coated seal seat for use at high temperatures
- Heating Jacket
- Single- or double-row steam injection

Tight shut-off, throttle and control valve type HTK

The resourceful company founder Karl Adams was able to implement his idea of a highly versatile valve by means of gradually improving on the original valve technology to arrive at the triple-eccentric sealing system. All ADAMS valves are based on our first patented triple-eccentric valve, which enables the disc to move into its final sealing position without friction.



Over the years, we have constantly developed new products and enhanced details that led to a great number of additional patents. ADAMS has always comprised two main areas for product development: the general development of valves and details and products specially designed for our customers' needs.

Tight shut-off valve

In all applications, a shut-off valve is needed to isolate the pipeline if necessary. The valves need to close completely tight in order to avoid damage on other equipment or to allow maintenance work on the pipeline. The tightness of the ADAMS valves is guaranteed through the triple-eccentric sealing system. It shuts the valve off one hundred percent tight and stays reliably closed.

Type HTK

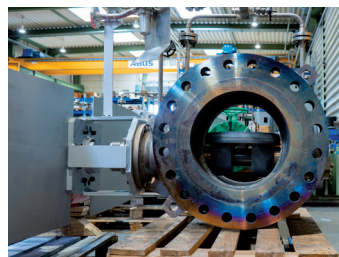
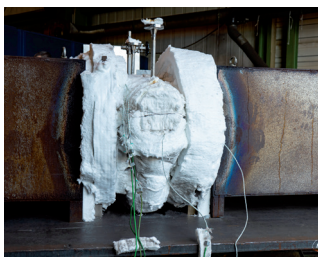
The strength of the HTK valves is their absolute tightness at temperatures up to 950 °C. The triple eccentricity combined with the special metallic sealing system in the valve ensures easy opening and closing, even at extreme temperatures. The HTK is available both as a standard model and in a variety of customised designs. It can be mounted in the following application areas:

- Power plants (Nuclear, Fossil-fired)
- Gas industry
- Petrochemicals (Ethylene plants)
- Refineries (Energy recovery)
- Plant engineering (Industrial plants)



Reliability at high temperatures and large nominal widths

With nominal diameters of up to 4 meters they can operate at temperatures ranging from -196°C to 950°C and withstand tremendous pressures. The triple eccentricity combined with the special metallic sealing system in the valve ensures easy opening and closing, as well as absolute tightness even at extreme temperatures. Our state-of-the-art welding technology makes it possible to work with large nominal widths and enables us a great deal of flexibility with which we manufacture special lengths and custom-made valves in accordance with the requirements of our customers. Whether a heating jacket, single- or double-row steam injection, or valves that open and close at extremely high speeds: we provide customised solutions for the HTK for a wide variety of purposes. The compact design of the valve, even for large nominal widths, makes the HTK the valve of choice for both underground and overhead lines.



HTK applicable in diverse applications

The HTK can be used for a broad range of temperatures and pressures. This rotary tight shut-off valve design has proven its reliability in fossil-fired and nuclear power plants, refineries, as well as ethylene plants and the gas industry time and time again.

The HTK for power plants

Our tight shut-off valves are capable of regulating the flow which enables them to be used in a multitude of systems inside power plants. They are used in cooling water circuits, water input and use, preheaters and vaporisers. The ADAMS HTK is the right choice if a reliable shut-off and throttle valve is needed, because of its high temperature resistance combined with a wide range of diameters and flow regulatory functions.

The HTK for petrochemical applications

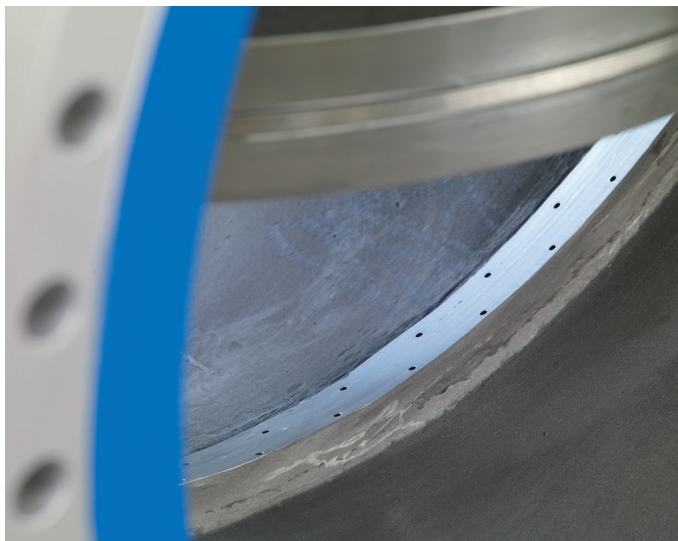
The petrochemical industry profits from our expertise as well. Refineries, FCC-, oil-, and gas farms have one thing in common: Extreme pressure and temperature conditions. Our tight shut-off, throttle and control valve type HTK is diligently designed and manufactured with the ideal materials to handle these conditions and to ensure a flawless production process.

One of the customised designs of the HTK serves as transfer line valve (TLV) and decoking valve (DV) with interlocking. Small purging holes, equally placed on the seat in a single row (DV) or in double rows (TLV), provide continuous steam purging of the seat to prevent coke build-up on the seating surface. A patented disc seal protection device (Flow Deflector) prevents disc edge erosion caused by coke particles in the flow stream in the full open position.



The tight shut-off, throttle and control valve type HTK valve can also be specially designed to offer outstanding reliability and low leakage (FCI 70-2 Class IV to VI is possible) at high temperatures in the FCC process. It is usually used as an expander inlet valve with fast closing function in turbo expander systems. Because of the abrasive flue gas that can reach temperatures up to 800°C, the HTK is equipped with a bypass and an additional purging system to keep the bushing area free of particles. Purging can be done either with air, nitrogen or steam up to around 250°C. To guarantee the functionality under the desired pressures we perform hot stroke tests confirming the quality and safety of our valves.

Options of the HTK



Block & bleed

Operating processes can make it necessary to avoid even the most minor of leakages. In order to achieve this, two seals are placed one behind the other in the seal seat with a chamber between them. The chamber can be pressurised with a barrier medium of liquid or gas. A leakage detector can also be installed to test tightness.

Quick-opening and quick-closing function

The control and regulation of opening and closing can be supplemented with a quick-opening and quick-closing function. The function offers control reaction times of less than one second.

Hard-coated seal seat

For use at extremely high temperatures, solid metal seals are used that are additionally hard-coated. The sealing parts both on the valve and in the body are equipped with a low-wear hard facing.