



ARCTIC MARINE LOADING ARM



Designed and Built for Liquefied Gas

The SVT ARCTIC Marine Loading Arm is a hydraulic-driven loading arm especially designed for the transfer of liquefied gas. Based on the ATLANTIC model, it has a long operating reach and a number of features that make it your first choice for a safe transfer of liquefied gas. This arm operates at temperatures down to -196°C and at an internal design pressure of up to 45 bar.



Double Counterweight System

The SVT ARCTIC Marine Loading Arm is equipped with a double counterweight system that allows independent balancing of the inboard and outboard arms through separate counterweights. The balancing of the outboard arm is achieved by means of a pantograph cable system that ensures a constant balance of force as well as very effective shock absorbance. The cables' absorbing quality results in an extremely smooth and steady arm movement when maneuvering. The cables are impregnated with a special lifetime coating and carry a safety factor of five.



Separate Supporting Structure

Through its separate support structure and large mechanical bearings, the external forces and momentums are effectively dampened. Identical swivel joints can be used, thereby effectively reducing spare parts storage.

In case of high elevated ship sides, the loading arm doesn't need to be mounted onto an additional platform. It can be installed at the base with an extending riser.



SVT Emergency Release Coupler (ERC)

With the SVT ARCTIC Marine Loading Arm, a specially adapted model for extreme temperatures of our field proven SVT Emergency Release Coupler is employed.

Through the use of only one hydraulic cylinder and the mechanical interlock concept, the probability of failure is reduced to a minimum, thereby reaching the utmost safety level. The SVT Emergency Release Coupler is classified according to SIL.



- Suitable for cryogenic temperatures down to -196°C
- Special design to shorten cooldown time
- Fully balanced by separate counterweights for inboard and outboard arms – double counterweight design
- Electrohydraulically operated, optionally from the ship by remote control
- Highest safety standards due to the use of the well-proven SVT Emergency Release Couplers (ERC) and the SVT Quick Connect/Disconnect Couplers (QCDC)
- Optimized flow with minimal pressure loss
- Reduced spare parts storage by using six identical SVT ROTAFLEX Cryogenic Swivel Joints
- Manufactured and assembled at our German plant – permanent surveillance of the production processes
- Test run on SVT premises with the corresponding hydraulic power unit and control system, including integration tests
- Saving time and money through fast installation and an initial operation of the completely preassembled loader on the jetty
- Support during setup and during the initial operation by SVT's highly experienced service crew
- High reliability and low maintenance requirements – a regular overhaul is not required
- Construction in accordance with international standards such as OCIMF and EN 1474



ROTAFLEX Cryogenic Swivel Joints

The SVT ROTAFLEX Cryogenic Swivel Joints are made out of a special high-quality stainless steel that is characterized by an extreme hardness and ductility even at very low temperatures. Separate raceway rings are not needed, avoiding associated problems. The redundant dynamic seals are made of UHMW-PE. This material with practically no measurable wear and tear is well suited for very low temperatures.

With the help of a concentric internal liner, the inner and outer ball raceways are kept free from direct contact with the extremely cold substance.

This results in a steady-going cooldown so that Cryogenic Swivel Joints do not require a cooling phase beyond regular cool down of ship and shore side piping – which is a very important criterion for an instant and rapid start of the transfer.

Instead of grease lubrication, Cryogenic Swivel Joints are equipped to perform nitrogen purging of the ball raceways. The system has extremely low nitrogen wastage. It is built without hoses.

Because of the long-lasting lubrication, SVT ROTAFLEX Swivel Joints practically don't need maintenance. They run smoothly throughout their entire product lives, even under the conditions of constant movement encountered in offshore applications.



Easy Routine Maintenance

An expensive setup of scaffold is not needed. In most cases, maintenance ladders and platforms will do.

In the parked position, all hydraulic drives are in an absolutely horizontal position so that they can be vented in the simplest manner.

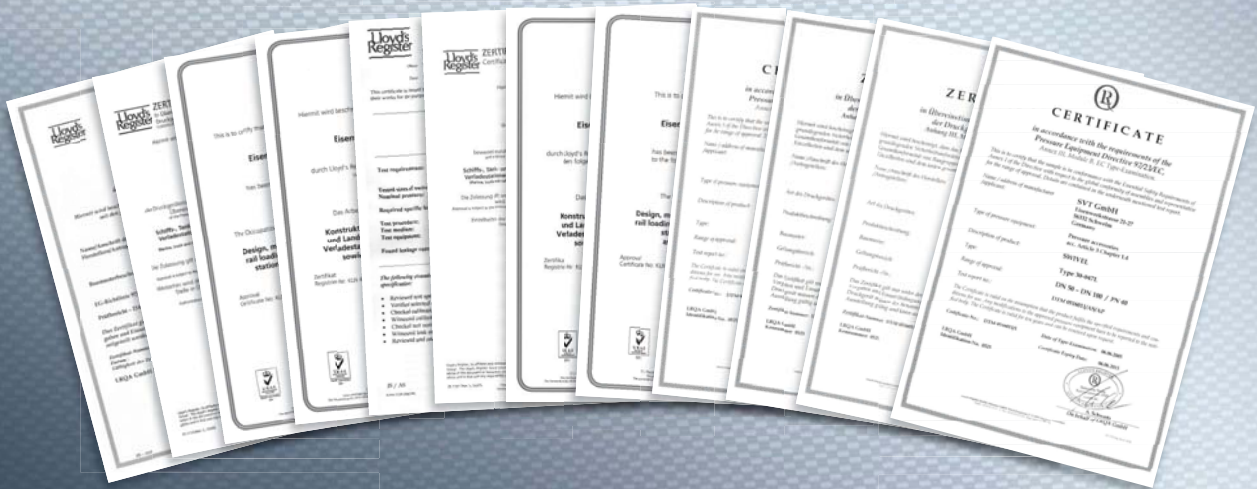
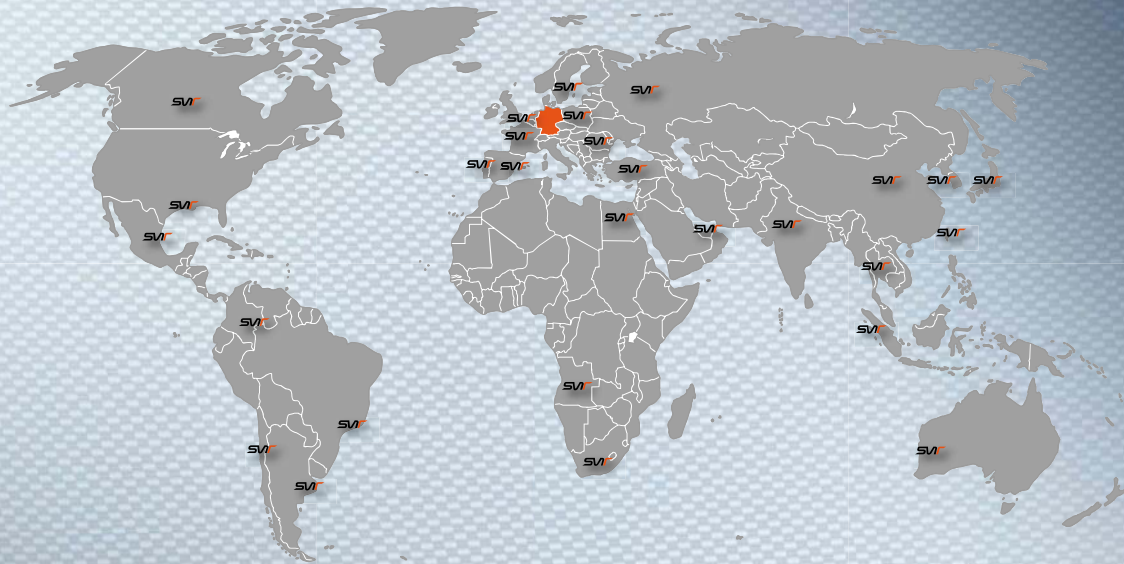
All SVT ROTAFLEX Cryogenic Swivel Joints are flanged on both sides, and all seals are easily accessible in minimal time thanks to the optimized arrangement of the joints – ideal for easy inspection and maintenance.

The SVT ARCTIC Marine Loading Arm does not need regular overhauls – an important aspect in the total cost of ownership.



Fast Installation

The SVT ARCTIC Marine Loading Arm is delivered and installed as a whole, i.e. with its complete hydraulics and electronics. The installation on the jetty can be performed on land or from the water. This normally takes one or two days.



As a member of the GESCO group, SVT GmbH is one of the leading global manufacturers of loading equipment for liquid and gaseous products. SVT has more than 40 years of experience in the design, construction, and production of loading arms. Worldwide installations of loading systems also add to SVT's reputation as a reliable and innovative partner for its clients.

Still today, SVT manufactures and assembles all of its key components exclusively in Germany. Swivel Joints, Emergency Release Couplers, Control Systems, Quick Connect/Disconnect Couplers, among others, are developed, produced, and tested by SVT. This is German engineering at its best. More than 180 loading arms sold to a single customer is convincing proof of our strong belief in quality.

Regional salespeople as well as the right international contact ensure excellent service and extremely rapid response times. A team of highly qualified technicians and engineers set up, test and maintain all of SVT's installations.

Furthermore, SVT is the only company worldwide that is in possession of the technical drawings and know-how of the former Wiese GmbH and Connex GmbH.