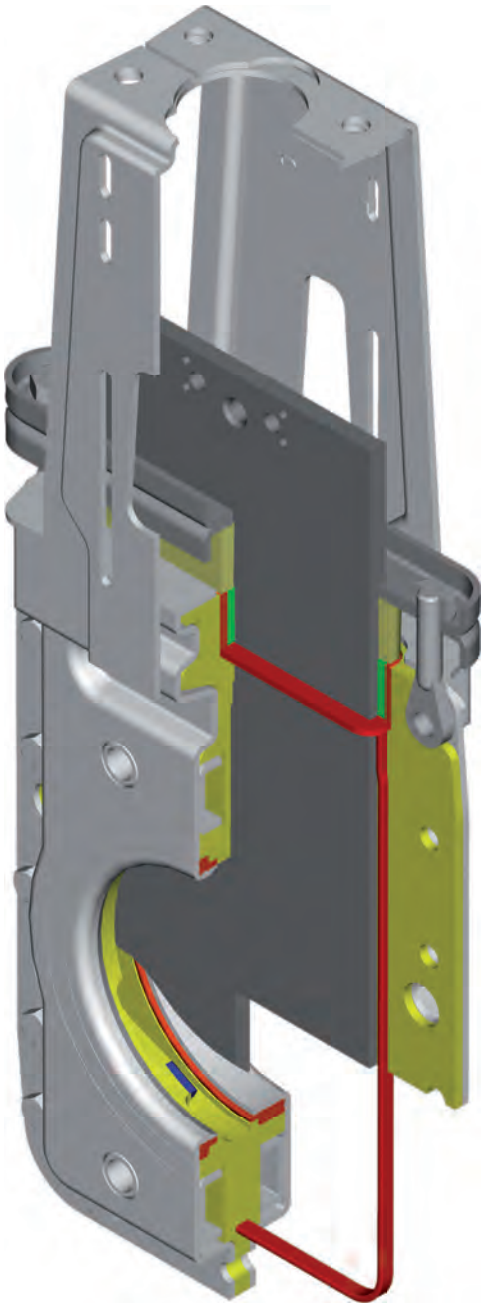
Valves for the pulp- and paper industry

MARTIN LOHSE GmbH

MARTIN LOHSE GmbH · Unteres Paradies 63 · D-89522 Heidenheim · +49 7321 755-42 · www.lohse-gmbh.de

Valves

for the pulp- and paper industry



50 years of experience an success

Genuine Made in Germany Quality - all the components of our valves are produced in Germany. This enables us to react quickly and flexibly to our customer requirements.

Our maintenance friendly two piece housing enables wearing parts to be changed simply resulting in reduced life-time cycle costs.

The tightest of tolerances between the slide plate and easy glide plastic slide cups in the case of LOHSE valves prevent a build up and de-watering of paper fibres. The clearing of the valve guide area is enabled by a specially designed rigid slide plate.

In the reject discharge of stock preparation machinery, particular demands are placed upon valves. High wear on account of abrasive media and a rapid blockage through rejected materials pose a great challenge. Here we are able to offer a universal approach to reject valves. By means of es geometrical changes and through the use of high wear resistant materials our valves have been made to suit abrasive media and cleaning processes.

A thought-out system to fit accessories and drives on our modular valves rounds off the LOHSE concept.

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Shut off valves type CNA

single-sided sealing with time-proven free-flushing effect

ensures unobstructed closing with stock consistencies <5%
available in various seal types

areas of application: general shut off valve for all water and pulp carrying pipework

nominal diameters: DN 50 – 1400 (2 – 56“)
material: stainless steel (1.4404 / 1.4571)
flanges: DIN EN 1092-1, ANSI B 16.5 class 150

Please enquiry about further information.

Shut off valves types CDS, CDSV, CDSR

double-sided sealing with continuous valve plate and smooth dead zone-free flow

ensures unobstructed closing with stock consistencies >5% and media containing solids
also available with various seal types and surface treating of the wearing parts - see type CDSV and CDSR

areas of application: media with a high consistency, a high level of stickies and rejects

nominal diameters: DN 50 – 1400 (2 – 56“)
material: stainless steel (1.4404 / 1.4571)
flanges: DIN EN 1092-1, ANSI B 16.5 class 150

Please enquiry about further information.

Shut off valves type CAW

double-sided sealing in groove-free/dead zone-free version

ensures unobstructed closing without material accumulations in the valve seat (smooth valve gate)
available in various seal types

areas of application: water and effluent

nominal diameters: DN 50 – 1000 (2 – 40“)
material: stainless steel (1.4404 / 1.4571)
flanges: DIN EN 1092-1, ANSI B 16.5 class 150

Please enquiry about further information.

Regulating valve type CBS

available with either triangular or pentagonal orifice and a specially adapted slide plate

these allow a flow control to a high degree of regulation including regulation with high flow level or pressure drop in the system
available in various seal types

areas of application: flow control for water and sticky media, pressure reduction

nominal diameters: DN 50 – 600 (2 – 24“)
material: stainless steel (1.4404 / 1.4571)
flanges: DIN EN 1092-1, ANSI B 16.5 class 150

Please enquiry about further information.

Reject valves type RQS / NAQ

with round inlet and square outlet

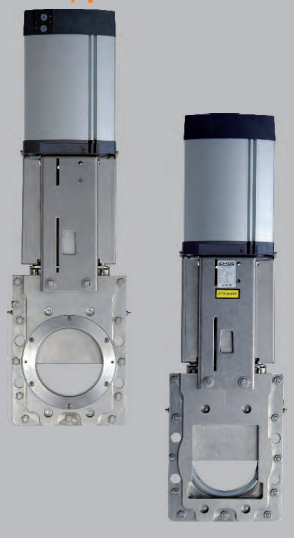
ensures reliable shut-off in reject area due to the smaller inlet (round) and larger outlet (square) and protected guides
available in various seal types and surface treating of the wearing parts

areas of application: cleaner plants, heavy weight rejects/ sandtraps/ heavy weight rejects discharge in general, pulpers

nominal diameters: DN 100 – 500 (4 – 20“)
material: type RQS: stainless steel (1.4571 / 1.4571), type NAQ: cast iron (En-GJL-250 / 1.4571)
flanges: DIN EN 1092-1, ANSI B 16.5 class 150, LOHSE-standard

accessories: intermediate piece (square to round)

Please enquiry about further information.



Reject valve type AEQ

with rectangular inlet and outlet

enables a consistent shut off in the rejects areas of a plant by means of a recess free design (rectangular), built in guides and a specially designed sealing system
surface treatment of wearing parts

areas of application: cleaner plants, heavy weight rejects/ sandtraps/ heavy weight rejects discharge in general, pulpers

nominal diameters: DN 100 – 600 (4 – 24“)
material: stainless steel (1.4571 / 1.4571), cast iron (EN-GJL-250 / 1.4571)
flanges: DIN EN 1092-1, ANSI B 16.5 class 150, LOHSE-standard

accessories: inlet flange, intermediate piece (square to round)

Please enquiry about further information.

Reject valves type TA

with round inlet and outlet,

double-sided metallic sealing with 2 valve plates

ensures reliable and very fast shut-off in reject area due to two valve plates that close to the middle
surface treatment of wearing parts

areas of application: heavy weight rejects dirt traps, light and heavy weight reject discharge in general, pulpers

nominal diameters: DN 100 – 800 (4 – 32“)
material: stainless steel (1.4541 / 1.4571), iron (S355J2 / 1.4571)
flanges: DIN EN 1092-1, ANSI B 16.5 class 150

Please enquiry about further information.

Reject valves type TAQ

with rectangular inlet and outlet,

metallic sealing with 2 valve plates

ensures reliable and very fast shut-off in reject area due to two valve plates that close to the middle
no guiding or dead corner in the valve bore area
wear resistant surface treatment

areas of application: heavy weight rejects dirt traps, light and heavy weight reject discharge in general, pulpers

nominal diameters: DN 150 – 700 (6 – 28“)
material: stainless steel (1.4541 / 1.4571)
flanges: LOHSE-standard

Please enquiry about further information.

Reject valves type TRE

with rectangular inlet and outlet,

metallic sealing with 2 valve plates inclined less than 15°

ensures reliable and very fast shut-off in reject area due to two inclined valve plates that close to the middle
no guiding or dead corner in the valve bore area
wear resistant surface treatment

areas of application: heavy weight rejects discharge

nominal diameters: DN 150 – 700 (6 – 28“)
material: stainless steel (1.4541 / 1.4571)
flanges: LOHSE-standard

Please enquiry about further information.

Operating elements - the LOHSE modular system

All LOHSE COMPACT-valves comprise the following **main groups**:
- valve body type
- operating elements type Hns, H, P, E, K, GK or X

The drive elements are matched to the size of valve and cam be exchanged for another drive type even if the valve is fitted in line.
No disruption of operation when exchanging drive element of valve in line.

This facility is called the **LOHSE modular system** which offers the following advantages:
- simplified and less expensive holding of spare parts.
- in case of damage, actuating elements can be replaced inexpensively.
- if any valve drives have to be altered, replacement is easy and quick

Handwheel actuator type Hns

Handwheel with non-rising stem, left-hand trapezoidal thread.
A grip is attached in the handwheel of valve type CNAHns, CBSHns and CAWHns up to DN 250.

Recommendation: for valves DN 50 – 300

Handwheel actuator type H

Handwheel with rising stem, left-hand trapezoidal thread, with stop sleeve.
Turn clockwise: valve „CLOSED“.
Turn anticlockwise: valve „OPEN“.

Recommendation: for valves DN 350 and more

Pneumatic cylinders type P, PF and PV

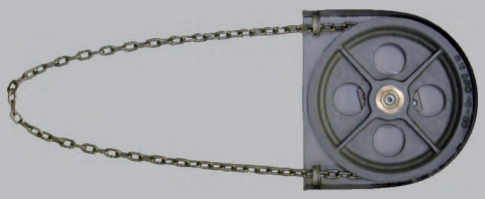
type P:
pneumatic double-acting
type PF:
pneumatic single-acting (spring-closing or spring-opening)
type PV:
pneumatic double-acting with adjustable stroke in either direction of opening or closing

Electrical actuators type E

In principle, the valves can be operated with all conventional electrical actuators.
We recommend AUMA actuators.

Chain wheel drive type K

for manual actuation of high installed valves
sprocket wheel for DIN 766 A round steel chains
chain length can be customised
rising stem



Bevel gear actuator type GK

single-speed gear mechanisms
speed reduction ratio i = 2:1
operated manually

Recommendation: for valves DN 350 and more

Square head actuator type X

square head actuator for below ground valves
square head with non-rising stem for hydrant wrench DIN 3223 „C“

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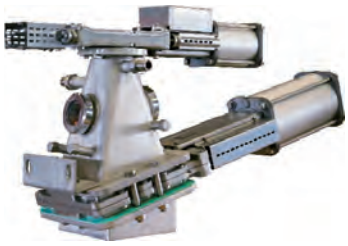
Dirt traps type RSL



with round inlet and rectangular outlet

Enables a consistent discharge of rejects for sticky, thin or thick consistency media and its unique geometrical design reduces turbulence and maximises protection against wear. The combining of the dirt trap body with the CDSV and AEQ valves guarantees a very effective discharge action of abrasive materials.
Wear resistant surface treatment of the valves and the relevant internals of the dirt trap. Different sizes (volumes) allow a optimal relation to the size of plant.

areas of application: discharge of rejects, high consistency cleaner

nominal diameters: inlet DN 50 – 250 (6 – 10“), outlet DN 150 – 350 (6 – 14“)
material: stainless steel 1.4541
flanges: DIN EN 1092-1, ANSI B 16.5 class 150, LOHSE-standard

Additional combinations of valves and inlet protection of the dirt trap also available on request.

Shut off butterfly valves type BVKI / BLKI

soft seating butterfly valves

Type BVKI: wafer between flanges

Type BLKI: lugged

available with different seals and material specifications for the housings

areas of application: water, fluids with low fibre content

nominal diameters: DN 40 – 800 (2 – 32“)
material: stainless steel (1.4408 / 1.4408), cast iron (EN GJS 400-15 / 1.4408)
flanges: DIN EN 1092-1, ANSI B 16.5 class 150

Please enquiry about further information

Ball valves

compact flange ball valves or 1-, 2- or 3-piece ball valves

of stainless steel
socket welded, threaded, flanged or „compact“ connection
with hand lever or with DIN ISO top flange and part turn actuator double- or single-acting

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Sampling valves type PHB / PHG

for welding

nominal diameters: DN 25 and 50 (1“ and 2“)
material: stainless steel (1.4408)

type PHG:
with weld-on nipple for welding, curved or straight design available

areas of application: sample taking in general

type PHB:
block flange design for welding and reseating, flow polished, available in curved or straight version

areas of application: taking samples where no interfering edges and hollow spaces are allowed, i.e. no spinning of the fibres

Please enquiry about further information

Check valves type 915 / ZRK

intermediate flange version

for preventing backflow
available in different seal and body materials

areas of application: water, liquids with low fibre content

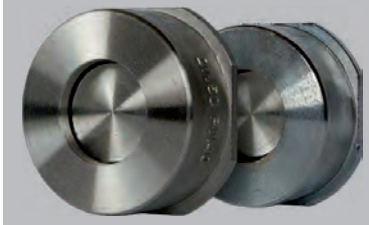
flanges: DIN EN 1092-1

type ZRK: single-wing design
nomninal diameters: DN 32 – 600 (1 ¼ – 24“)
material: stainless steel (1.4408 / 1.4408)

Type 915: double-wing design
nominal diameters: DN 50 – 600 (2 – 32“)
material: stainless steel (1.4408 / 1.4571)

Please enquiry about further information

Non-return valves type 930



intermediate flange version

for preventing backflow
available in different seal and body materials

suitable for industrial use in pipeline systems for transport of liquid and gaseous substances, as well as in systems with especially stringent material requirements

areas of application: water and gases

nominal diameters: DN 15 – 300 (½ – 12“)
material: stainless steel (1.4408 / 1.4436)
flanges: DIN EN 1092-1

Please enquiry about further information

Mechanical Engineering

Production variety and depth of production

Our affiliate **Maschinenbau Lohse GmbH** stands out as a partner of the paper industry offering high production quality and customised solutions.

Innovation, a high level of technical expertise and the many years of experience of our committed workforce in equipment and fan construction are combined behind the walls of our clean and modern machine shops on a production area of around 10,000 square metres.

Raking Systems for Waste Paper Pulpers

The suspension that rotates in the pulping process in the waste paper pulper spins the contrary material that came in with the waste paper, such as, e.g. wires, films, plastic and insoluble paper, into a rope. If only smaller disconnected ropes are formed, so that raking using a rope winch is very complicated, we recommend using Lohse raking systems, which can be adapted to the respective operations (periodic or continuous).

Available types: R (rake), H (hook) and K (combination of R and H).

Dewatering Presses

Dewatering press for dewatering reject from the waste paper pulpers. Plastic or metal wires are cut at the same time when dewatering process takes place. The pressed waste will be set out by a valve.
Its simple structure allows uninterrupted operation.
Low follow-on costs due to few and simple replaceable wear parts.

Reject Drums

The reject drums remove medium and coarse dirt and foreign bodies of all kinds from pumping suspension. They are available in different sizes and with different sizes and types of holes, depending on throughput and application.

Safety Access Doors

The Lohse Safety Access Door (manhole cover) seals reliably and has been inspected by the mutual indemnity association (Berufsgenossenschaft).

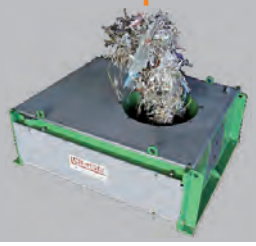
Type B4:
for concrete vats

Type S4:
for steel vats

Maschinenbau Lohse GmbH

Rope Cutters

The rope cutter consists of two cuttering beams with four built-in reverseable knifes, which move to the cutting centre and back again via two hydraulic cylinders. The rope is cut through without interrupting production and without an increased risk of accident. For a rope diameter up to 500 mm.

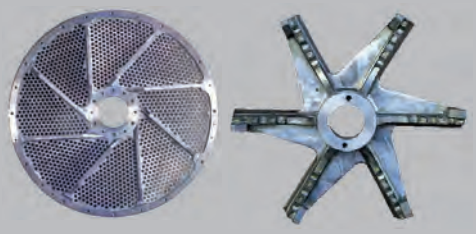


Vibration Screens

Due to the selective use of perforated and slotted screen plates vibration screens are suitable for any screening tasks encountered in the paper industry, both in the low and high-density range.

Repairs and maintenance work

for example:
impellers and perforated screen baskets · any type of pulper · vibration screens · screen plates with and without support-frames · breaker rotors · helical breakers · any screening machines and sizes including basalt re-lining · screening and soaking drums · high density cleaners · junk-traps on pulpers · components for belt thickners · steel and stainless steel structures · fans · screw presses · various grades of hard coatings



Fans of stainless steel

High efficiency because of optimized profile of the wings
Low noise because of reduced amount of impeller wings
Max. stability because of thick materials and effective weld seems
Max. flexibility because of finish according to usage site / customer request

…and much more!

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