

Cyclones for Industrial plants



Manufacturer

LTC – Lufttechnik Crimmitschau GmbH
Gewerbering 24
08451 Crimmitschau
Germany

Phone: +49 3762 / 95 52 0
E-Mail: info@ltc-crimmitschau.com
Web: www.ltc-crimmitschau.com

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1 Application area

Cyclones can be used in a wide variety of dust collection and ventilation systems.

Cyclones can be divided into the following groups according to the type of medium to be separated:

- Cyclones for "light" dusts (ZLS)
- Cyclones for "heavy" dusts (ZSS)

All cyclones are used to separate dust from air streams.

The cyclones can be used in the standard version in the following areas:

- Design temperature -10 to 120°C (14°F to 248°F)
- Design pressure 0 to 5.000 Pa (50mbar = 72,5 psi)

For special designs, temperatures between -40 and 800 °C (-40°F and 1472°F), or higher design pressures as well as design for explosion pressure shock resistance are possible.

2 Safety advice

The cyclones are developed, designed and built according to the recognised rules of technology.

Nevertheless, their operation may cause hazards for the operator or third parties or damage the system or other material assets.

Safety advice serves the purpose of occupational safety and accident prevention and must be observed and adhered to without fail.

Cyclones can be equipped with discharge systems.

Moving parts can endanger people (e.g. crushing). Manipulation with moving parts during operation is not permitted.

Before working on the cyclones, shut down the plant and disconnect the power supply from the fans.

Maintenance or repair work on the electrical equipment may only be carried out by a qualified electrician or by instructed person under the direction and supervision of a qualified electrician in accordance with the electrotechnical regulations.

3 Dimensions

3.1 Cyclones for "light" dusts (ZLS)

The following nominal sizes are available as standard:

Nominal size	Air inlet	Air outlet	Dust discharge
500	150 x 150	Ø280	Ø180
800	224 x 224	Ø400	Ø250
900	250 x 280	Ø500	Ø315
1.100	300 x 375	Ø630	Ø315
1.200	315 x 450	Ø710	Ø355
1.300	375 x 450	Ø750	Ø375
1.400	375 x 475	Ø800	Ø400
1.600	425 x 560	Ø900	Ø500
1.700	450 x 630	Ø950	Ø500

Other nominal sizes are possible on request. All dimensions are in millimeters.



3.2 Cyclones for "heavy" dusts (ZSS)

The following nominal sizes are available as standard:

Nominal size	Air inlet	Air outlet	Dust discharge
300	100 x 200	Ø140	Ø125
500	125 x 300	Ø200	Ø180
600	160 x 450	Ø280	Ø200
700	180 x 500	Ø315	Ø200
800	180 x 630	Ø355	Ø250
850	200 x 710	Ø400	Ø250
900	224 x 710	Ø450	Ø250
1.000	224 x 800	Ø450	Ø250
1.100	250 x 900	Ø500	Ø250
1.200	250 x 1.000	Ø560	Ø315
1.300	280 x 1.120	Ø630	Ø315
1.400	315 x 1.120	Ø710	Ø315

Other nominal sizes are possible on request. All dimensions are in millimeters.



4 Material

As standard, the cyclones are supplied in the following materials:

- Carbon steel (e.g. S235JR) acc. to DIN EN 10025-2
- 304/304L (e.g. 1.4301) acc. to DIN EN 10028-7
- 316Ti/316L (e.g. 1.4571) acc. to DIN EN 10028-7

The design in other materials is possible on request.

Cyclones in carbon steel design are painted on the outside as standard. The thickness of the coating is 80µm. The RAL - tone is freely selectable.

5 Types

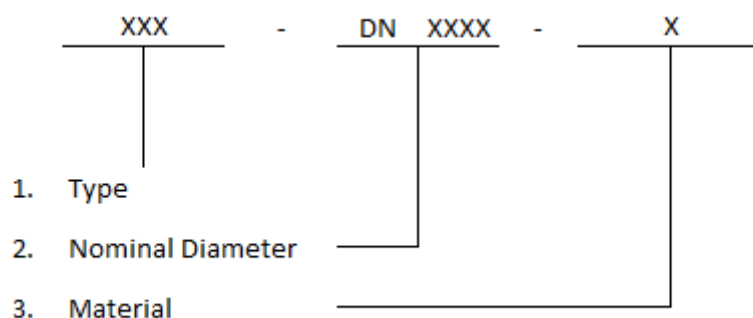
The cyclones can be manufactured clockwise or counterclockwise with different flanges for the connecting piping.

As standard, the flanges for the air inlet are supplied as flat flanges in accordance with DIN 24193 Part 2. The air outlet flange and the dust discharge flange are designed according to DIN 24154 Part 2 Series 2.

Other flange designs and dimensions are available on request. The fasteners, such as bolts, nuts and gaskets, are not included in the standard scope of delivery.

6 Ordering details

When ordering the cyclones, please specify the required versions according to the following order code:



1. Cyclone type

- ZLS - Cyclone for light dusts
- ZSS - Cyclone for heavy dusts

2. Nominal size

- see chapter 3 Dimensions
- S - Special version = please specify dimensions separately

3. Material

- Carbon steel (e.g. S235JR) acc. to DIN EN 10025-2
- 304/304L (e.g. 1.4301) acc. to DIN EN 10028-7
- 316Ti/316L (e.g. 1.4571) acc. to DIN EN 10028-7
- Special design = please specify material

6.1 Order example

1. Cyclone type	ZLS (Cyclone for light dusts)
2. Nominal size	500
3. Material	1.4301

ZLS – DN0500 – 1.4301

7 Documentation

The following documents are supplied as standard:

- Cyclone datasheet
- Material certificates
- Declaration of compliance
- Instruction manual

Other documents are possible on request.

8 Spare parts

To replace damaged or worn parts, we recommend using only original spare parts.

Any liability and warranty on the part of LTC - Lufttechnik Crimmitschau GmbH for damage caused by the use of non-original spare parts is excluded.

When ordering spare parts, please specify the following data:

Order number (LTC - Lufttechnik Crimmitschau GmbH):

Order code cyclone:

Designation:

Quantity:

Address for ordering spare parts:

LTC - Lufttechnik Crimmitschau GmbH

Gewerbering 24

D 08451 Crimmitschau

Germany

Phone: +49 3762 / 95 52-0

E-Mail: info@ltc-crimmitschau.com

On request we will send you a spare parts offer.