



As coarse separator before filter units or as fan protection you can advantageously use a cyclone of the type CY. For high vacuum the model CY-V can be used and for pre-separation of light materials the LCY with high separation/low rise velocity is recommended.

CY: Air volume: 500 - 30,000m³/h
 Vacuum: Up to 5,000Pa
 Rise velocity (immersion tube): Approx. 20m/s

CY-V: Air volume: 1,000 - 8,000m³/h
 Vacuum: Up to 40,000Pa
 Rise velocity (immersion tube): Approx. 20m/s

LCY: Air volume: 1,500 - 7,000m³/h
 Vacuum: Up to 5,000Pa
 Rise velocity (immersion tube): Approx. 1.5m/s

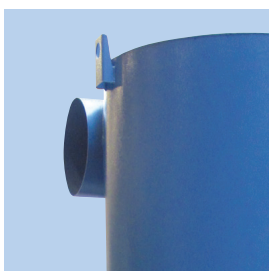
Description

- Polluted air is led into unit through tangential inlet in cyclone top.
- Particles are separated by cyclone effect and fall down along cyclone side and are collected in dust container in unit bottom. For LCY the separation also occurs by speed reduction. Dust container is suspended and emptied by Gram Quicklock-adjustable suspension.
- Clean air is led out by connection in unit top.

Cyclone als preseparator provides better filter performance

For separation of certain material types/chips or at larger material volumes you can advantageously use a cyclone as preseparator. Cyclones can either be placed close to the pollution source (hereby piping wear is reduced, less air transport speed is required) or just before filter unit.

Through coarse separation by a cyclone the filter material load is reduced, whereby operating costs are lowered. Further it is possible to preseparate heavier waste for recycling or safe disposal.



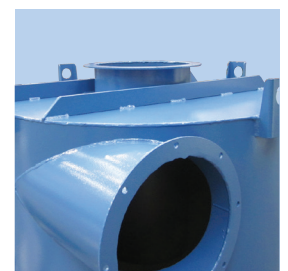
Flexible inlet
 Cyclones are standard delivered with inlet connection on the left side.



Several possibilities for dust collection
 Can be delivered with 72/150L-dust container or 380L sack holder. (CY 500 - 1500 only 40L-dust container.)

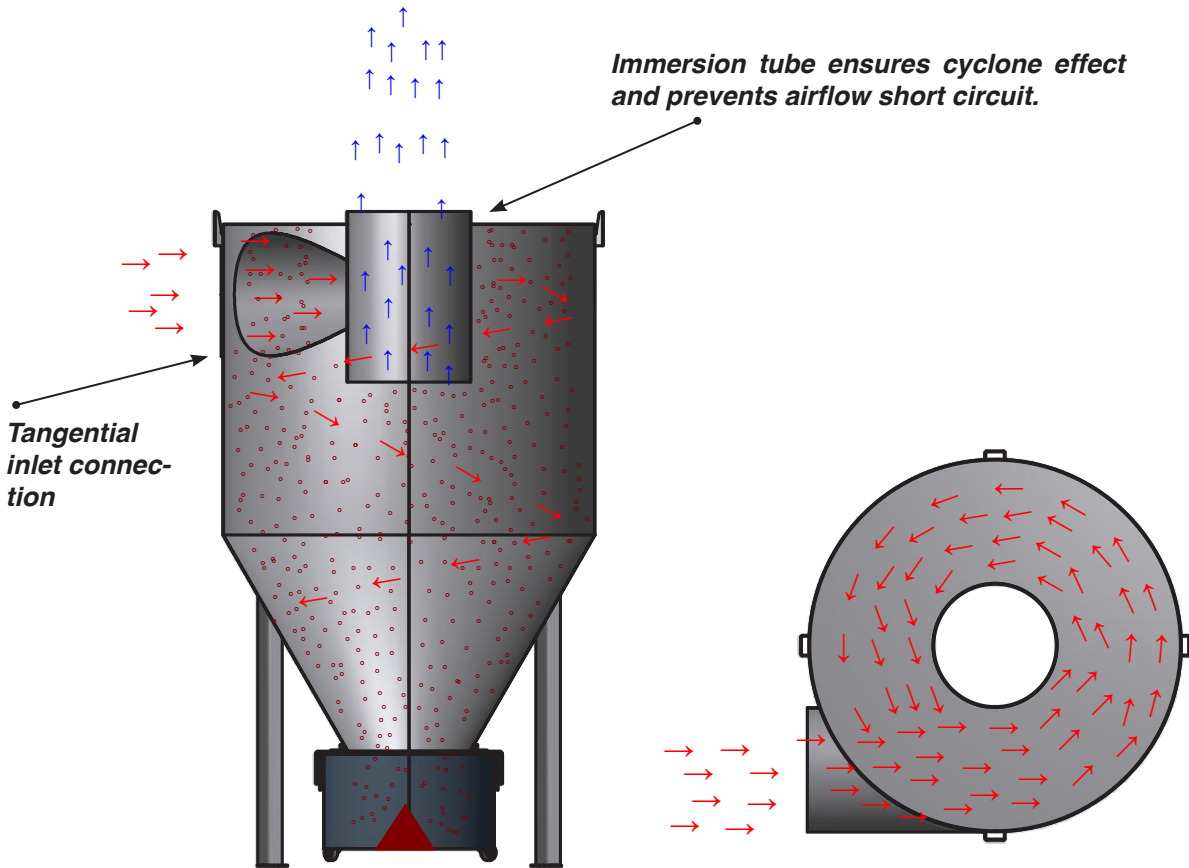


Output to bulk bag
 At larger material volumes the cyclone can be placed on a frame and be equipped with equipment for pressureless output to bulk bag (Photo: Output connection shown without equipment).



Cyclone for high vacuum application
 For easy connection to high vacuum piping inlet and outlet are equipped with JKF-flanges (valid from CY-V 3000).

Principle sketch for flow through cyclone type CY:



Construction/surface:

Cyclone type CY/CY-V/LCY is constructed according to:

- Machine directive 2006/42/EU
- Harmonized standards: EN 349, EN 4414, EN 12100, EN ISO 13857

Filter cabinet is made in 2mm black steel plate

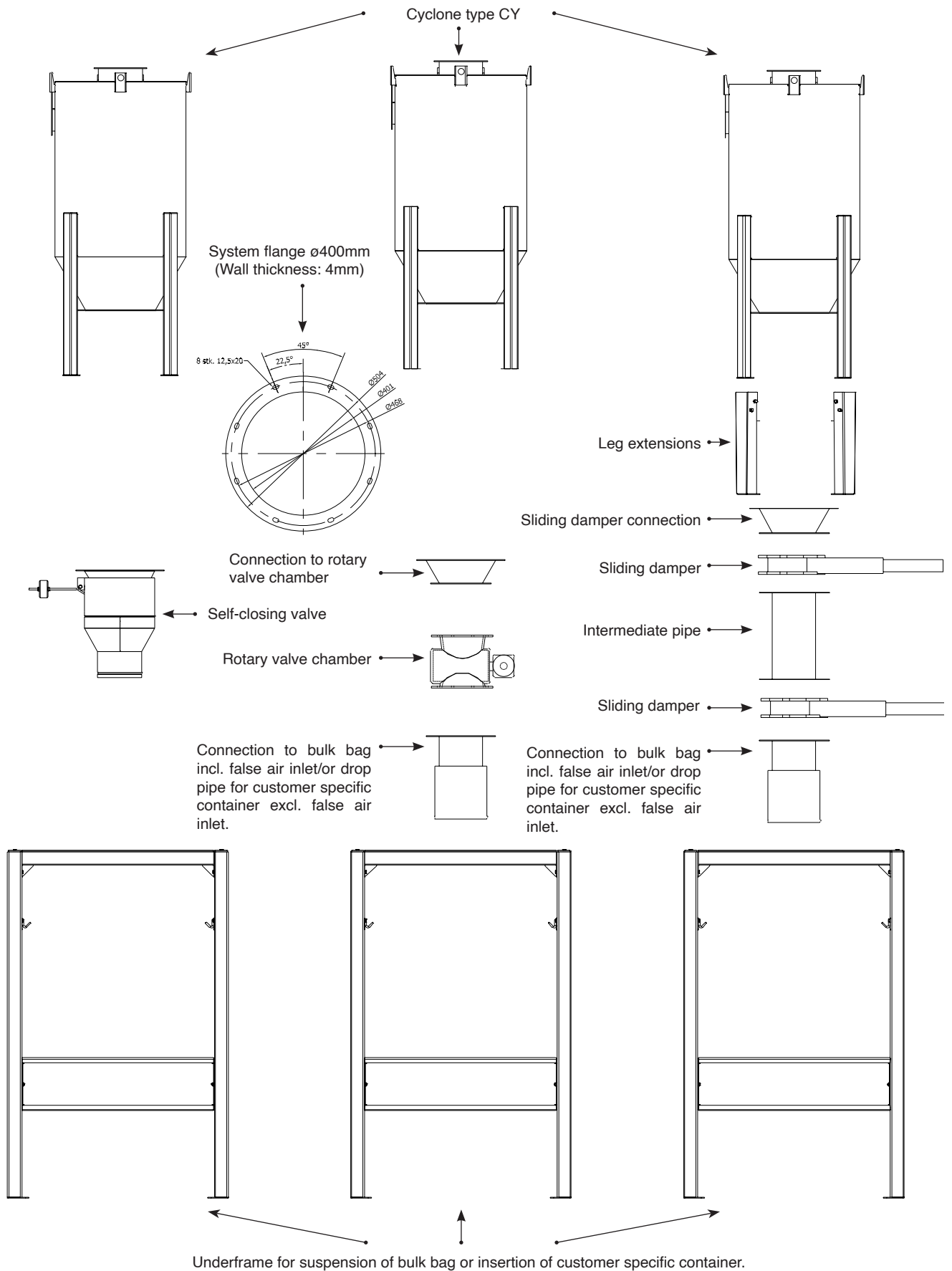
Surface powder enamelled RAL 5007/7011 structure

Further is available:

- Version in hot-galvanized, enamelled steel plates for outdoor mounting
- Lockable inspection cover below on cyclone side
- Sack holder for 72L-dust container
- 150L-dust container with sack holder*
- 380L-sack holder
- Underframe and connections for bulk bag and drop pipe for customer specific containers (see sketch next page)
- Underframe for bulk bag enlargement, shielded by door and micro-switch
- Temperature sensor type RT101 as well as alarm devices
- Fill-level sensor type OEM-K (monitors dust container filling (only for 72/150L))
- Explosion-protected/-relieved version for use in connection with ATEX-zones (see ATEX data sheet)

* Note: Unit height is increased by 330mm

Principle sketch for equipment for cyclone type CY/CY-V/LCY:



Free height beneath outlet to bulk bag/customer specific container: 1150mm

We refer to the Gram price list for the complete program!



Cyclone type CY/CY-V/LCY is available in the sizes as stated in the forms below.

Please, contact us for assistance in selecting the optimal unit taking into consideration air volume, dust type and volume, operation times etc.

- **CY-V** is for high vacuum application
- **LCY** is for separation of light materials

Cyclone type CY (max. vacuum 5,000Pa):

Type	Item no. Left inlet	Dust container [L]	Air volume [m ³ /h]	Rice velocity [m/s]	△ P [Pa]
CY 500/40	04 330 000	40	550	20,0	1100
CY 1000/40	04 331 000	40	800	18,0	1100
CY 1500/40	04 332 000	40	1400	19,5	1100
CY 2000/72	04 333 000	72	2100	19,0	1100
CY 2000/150	04 333 100	150	2100	19,0	1100
CY 2000/380	04 333 200	380	2100	19,0	1100
CY-B 2000 ¹⁾	04 333 480	-	2100	19,0	1100
CY 3000/72	04 334 600	72	3500	20,0	1100
CY 3000/150	04 334 100	150	3500	20,0	1100
CY 3000/380	04 334 200	380	3500	20,0	1100
CY-B 3000 ¹⁾	04 334 480	-	3500	20,0	1100
CY 4000/72	04 335 600	72	5100	19,0	1100
CY 4000/150	04 335 100	150	5100	19,0	1100
CY 4000/380	04 335 200	380	5100	19,0	1100
CY-B 4000 ¹⁾	04 335 480	-	5100	19,0	1100
CY 8000/72	04 339 600	72	8500	18,5	1100
CY 8000/150	04 339 700	150	8500	18,5	1100
CY 12000/72	04 339 800	72	13500	17,5	1100
CY 12000/150	04 339 900	150	13500	17,5	1100
CY 22000/72	04 285 000	72	22000	20,0	1100
CY 22000/150	04 285 100	150	22000	20,0	1100
CY 30000/72	04 285 200	72	30000	21,0	1100
CY 30000/150	04 285 300	150	30000	21,0	1100

¹⁾ Bulk bag version must be supplemented with equipment with pressureless outlet

Cyclone type CY-V (max. vacuum 40,000Pa):

Type	Item no. Left inlet	Dust container [L]	Air volume [m ³ /h]	Rice velocity [m/s]	ΔP [Pa]
CY-V 1000/67	04 331 350	67	800	18,0	1100
CY-V 1000/145	04 331 750	145	800	19,0	1100
CY-B-V 1000 ¹⁾	04 331 550	-	800	19,0	1100
CY-V 2000/67	04 333 350	67	2100	19,0	1100
CY-V 2000/145	04 333 750	145	2100	19,0	1100
CY-B-V 2000 ¹⁾	04 333 550	-	2100	20,0	1100
CY-V 3000/67	04 334 350	67	3500	20,0	1100
CY-V 3000/145	04 334 750	145	3500	20,0	1100
CY-B-V 3000 ¹⁾	04 334 550	-	3500	20,0	1100
CY-V 4000/67	04 335 350	67	5100	19,0	1100
CY-V 4000/145	04 335 750	145	5100	19,0	1100
CY-B-V 4000 ²⁾	04 335 550	-	5100	19,0	1100
CY-V 8000/67	04 339 350	67	8500	19,0	1100
CY-V 8000/145	04 339 780	145	8500	18,5	1100
CY-B-V 8000 ²⁾	04 339 550	-	8500	18,5	1100

¹⁾ Bulk bag version must be supplemented with equipment with pressureless outlet

Cyclone type LCY (max. vacuum 5,000Pa):

Type	Item no. Left inlet	Dust container [L]	Air volume [m ³ /h]	Rice velocity [m/s]	ΔP [Pa]
LCY 160/72	04 286 000	72	1550	1,5	600
LCY 200/72	04 286 200	72	2600	1,5	600
LCY 250/72	04 286 400	72	4100	1,5	600
LCY 315/72	04 286 600	72	6000	1,5	600
LCY 400/72	04 286 800	72	7100	1,5	600
LCY 160/150	04 286 040	150	1550	1,5	600
LCY 200/150	04 286 240	150	2600	1,5	600
LCY 250/150	04 286 440	150	4100	1,5	600
LCY 315/150	04 286 640	150	6000	1,5	600
LCY 400/150	04 286 840	150	7100	1,5	600