

PRODUCER



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Dust Collector UO-400-02

Table. Key technical parameters of the Dust Collector type UO-400-02

Parameter	Unit of Measure	UO-400-02
Nominal capacity	m ³ /min	80
Capacity range	m ³ /min	40÷120
Water use at device operation without tank	dm ³ /min	30
Water use at device operation with tank and pump	dm ³ /min	1÷3
Total length	mm	1548
Inlet and outlet diameter	mm	400
Length of connected exhaust/blowing duct	m	max 15
Total weight	kg	ok. 246
Dedusting efficiency: – total / respirable	%	99/97
Acoustic pressure level	dB(A)	below 75
The fan with whirl jet (type B - motor cooled by ambient air)	kW/V	2,2/400 or 500
Water pump type P-1BA/***(or equivalent pump) - for closed-circuit of water	kW/V	2,2/400 or 500
Water tank (dimensions as agreed with the Customer)	-	equipment
Water level controller type (option)	-	equipment
Float valve to controlling the water level (option)	-	equipment
Corrosion protection	-	zinc-plated or powder painting

Dust Collector UO-400-02 is certified.

The Certificate of Conformity No. CZ/937/IV/2013,

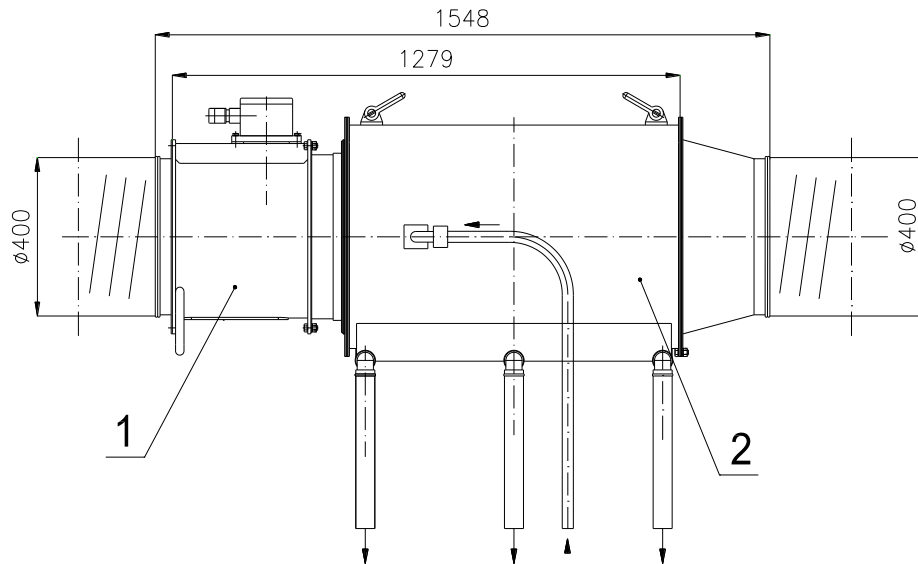
issued by The Central Mining Institute (The Certification Body No. 1453).

Scope of using

- The Dust Collectors type UO-400-02 are designed to remove dust from the air flowing through them, especially coal dusts, coal-stone dusts, stone dusts and industrial dusts. Dust is removed by the wet method.
- The Dust Collector type UO-400-02 is comply with the requirements of the Minister of Economy of 22 December 2005 (Journal of Laws No. 263 of 2005, item 2203) and they are devices of group I category M2.
- The Dust Collector type UO-400-02 can work as a stationary device for dedusting chutes, tippers, chambers in the mines and in coal processing plant.

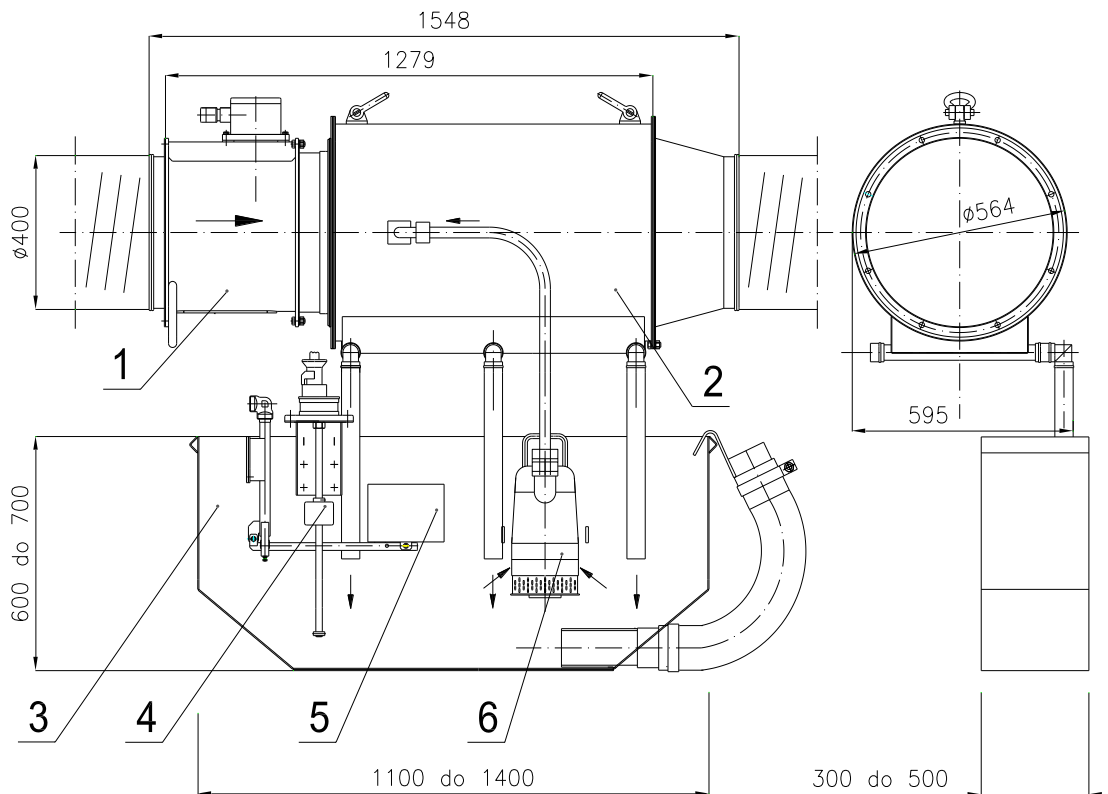
Principle of operation

- The wet dedusting method is based on suction the dusty air (a mixture of air and dust) from the places where dust is formed. The mixture of air and dust is supplied to the dust collector UO-400-02, by the fan with whirl jet and connected with water. The whirl jet increases dedusting efficiency.
- The Dust Collector can be equipped with a water tank and accessories for operation in a closed-circuit of water. Water is pumped by an impeller water pump from the tank to the whirl jet.
- In droplet separator the air is separated from the mixture of water and dust. Cleaned air is discharged to the environment.
- The mixture of water and dust flows into the water tank. Dust (stone dust or coal dust) sediments in the tank. Sedimented dust must be periodically removed from the tank.



1.The fan with whirl jet; 2.Droplet separator

Figure 1. Operation of the UO-400-02 without water tank (open-circuit of water)



*1.The fan with whirl jet; 2.Droplet separator 3.Water tank;
4. Water level controller; 5. Float valve; 6. Impeller water pump*

Figure 2. Operation of the UO-400-02 with water tank and impeller ater pump (closed-circuit of water)