

# Diadef Magnetic

HYDROCYLONIC DEPOSIT SEPARATOR WITH BUILT-IN MAGNET  
WITH ADDITIONAL FUNCTION OF AIR SEPARATOR



**USE**

Heating / cooling plants.

**FEATURES**

**Diadef Magnetic** deposit separator combines the hydrocyclonic action with the magnetic action to ensure maximum efficiency in the collection and blocking of impurities and ferromagnetic particles. The incoming fluid encounters a deflector, which forces a spiral motion inside the cylindrical central body: in this phase, by the effect of the centrifugal force the heavier particles in the water are pushed against the walls of the dirt separator, and slow down by friction. Dirt particles exit from the turbulence zone and easily descend into a special sump: once settled, they can not enter circulation again, thanks to the low speed of fluid in the area affected by the cyclonic effect. The purified fluid then exits the deposit separator through a fixed route on its upper part. The motion of the fluid also facilitates the separation of the air, which accumulates at the top to be expelled.

The magnetic action is ensured by the powerful neodymium magnet N52 located close to the sump. The magnets are placed inside a removable coupling, so that during the draining operations it is possible to easily extract the magnets, letting the retained particles fall in the sump and, then, be discharged.



**PECULIARITY**



1. diamagnetic sump\* • 2. removable magnet holder • 3. magnet

\* The diamagnetic sump allows the extraction of the magnet from its

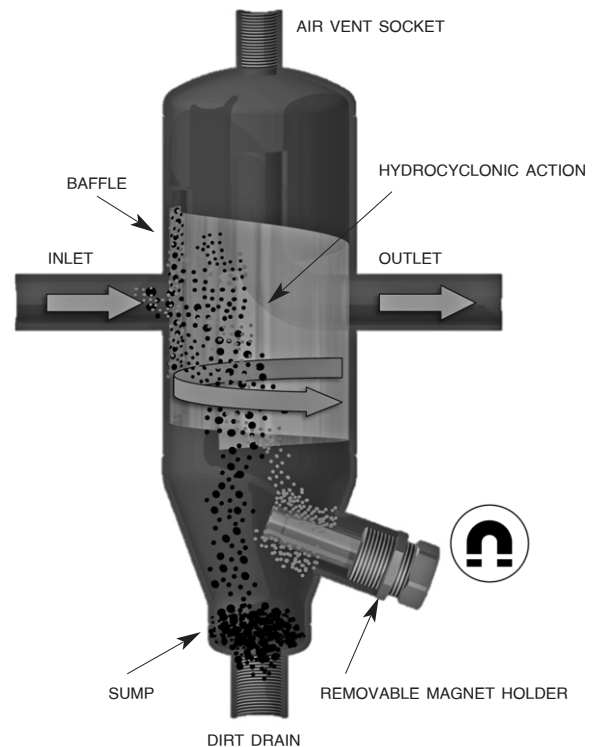
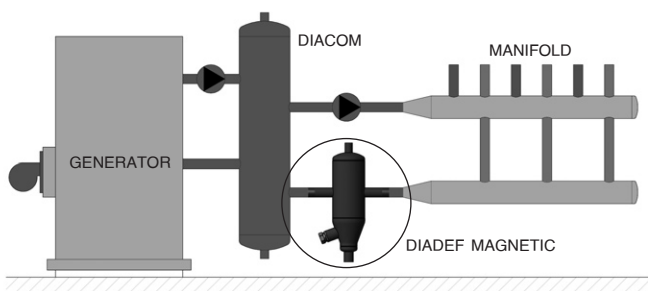
**Diadef Magnetic TECHNICAL FEATURES**

- Maximum fluid temperature: 90°C
- Minimum fluid temperature: 5°C
- Maximum fluid pressure: 5 bar
- Material: carbon steel EN 10255
- Paint: water-based primer, red
- Magnet: Neodymium - 1,4 T

**INSULATION TECHNICAL FEATURES**

- Cross-linked closed-cell polyethylene insulation, fire-proof, antistatic and scratch-proof.

**APPLICATION EXAMPLE:**



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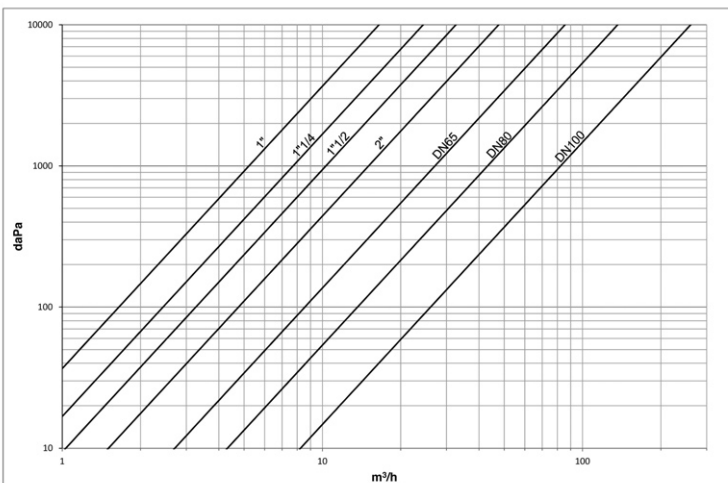


## VERSIONS

THREADED MALE	CONNECTIONS			
	1"	1"1/4	1"1/2	2"
Magnetic deposit separator code	DFI001	DFI114	DFI112	DFI002
Insulation code	CBDFI001	CBDFI114	CBDFI112	CBDFI002

FLANGED	CONNECTIONS		
	DN65	DN80	DN100
Magnetic deposit separator code	DFI212	DFI003	DFI004
Insulation code	CBDFI212	CBDFI003	CBDFI004

## FLUID-DYNAMIC FEATURES



Kv= flow coefficient [m<sup>3</sup>/h]

Q : flow rate [m<sup>3</sup>/h]

Δp : pressure drop

$$\Delta p = (Q / Kv)^2$$

Kv and INDICATIVE FLOW RATES			
THREADED			
Ø	Kv	Q	Q
1"	16,5	1,7 m <sup>3</sup> /h	2,3 m <sup>3</sup> /h
1"1/4	24,4	2,4 m <sup>3</sup> /h	3,5 m <sup>3</sup> /h
1"1/2	32,6	3,3 m <sup>3</sup> /h	4,6 m <sup>3</sup> /h
2"	47,6	4,8 m <sup>3</sup> /h	6,7 m <sup>3</sup> /h
		Δp = 100 daPa	Δp = 200 daPa
FLANGED			
DN	Kv	Q	Q
DN 65	85,6	8,6 m <sup>3</sup> /h	12,1 m <sup>3</sup> /h
DN 80	136	13,6 m <sup>3</sup> /h	18,3 m <sup>3</sup> /h
DN 100	260	26 m <sup>3</sup> /h	36,8 m <sup>3</sup> /h
		Δp = 100 daPa	Δp = 200 daPa

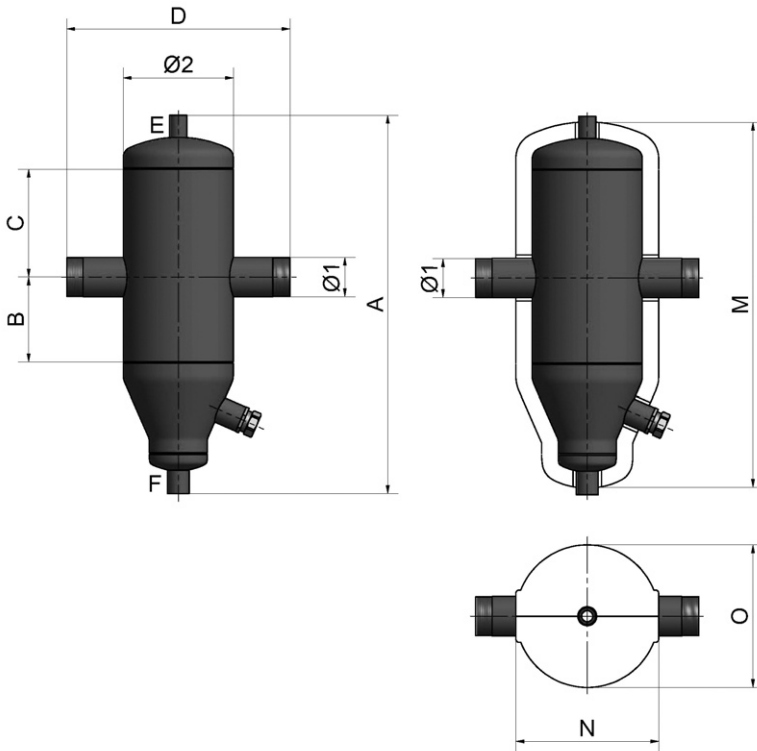


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**OVERALL SIZE**

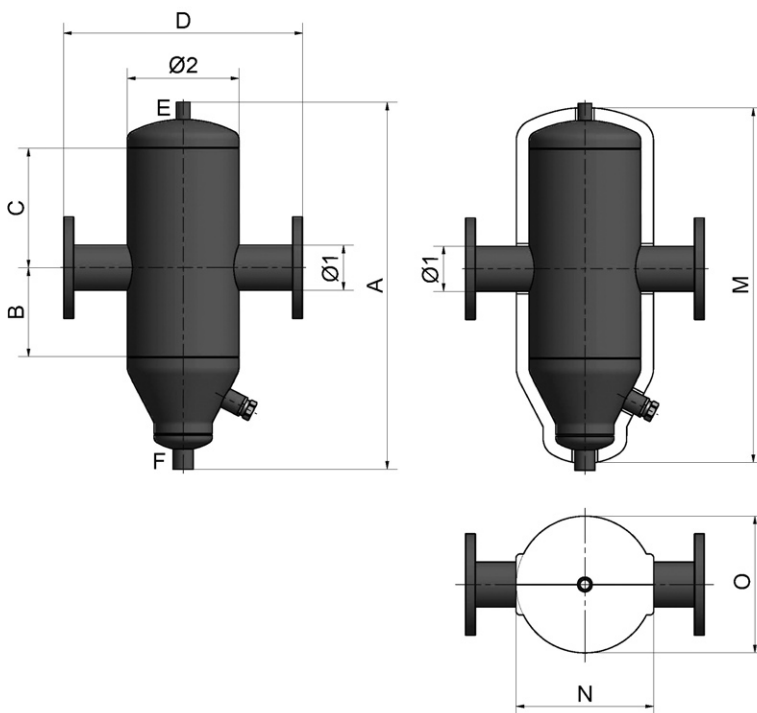


**THREADED MAGNETIC DEPOSIT SEPARATOR SIZE  
GAS - (UNI EN 10226-1)**

Ø 1	Ø 2	A	B	C	D	E	F
R 1"	DN 100	420	90	110	289	Rp 1/2" F	Rp 3/4" F
R 1"1/4	DN 125	480	100	125	314	Rp 1/2" F	Rp 3/4" F
R 1"1/2	DN 125	505	110	140	314	Rp 1/2" F	Rp 3/4" F
R 2"	DN 150	579	130	165	341	Rp 1/2" F	Rp 3/4" F

**INSULATION SIZE**

Ø	M	N	O
1"	405	190	160
1"1/4	485	215	185
1"1/2	510	215	185
2"	590	240	210



**FLANGED MAGNETIC DEPOSIT SEPARATOR SIZE**

Ø 1	Ø 2	A	B	C	D	E	F
DN 65	DN 200	661	150	200	418	Rp 1/2" F	Rp 1" F
DN 80	DN 200	721	175	235	469	Rp 1/2" F	Rp 1" F
DN 100	DN 250	850	210	280	523	Rp 1/2" F	Rp 1" F

**FLANGE TYPE**

Ø	flange	No. of holes
DN 65	PN10-16	4
DN 80	PN10-16	8
DN 100	PN10-16	8

**INSULATION SIZE**

DN	M	N	O
DN 65	635	280	280
DN 80	685	290	290
DN 100	815	360	360



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## NON-STANDARD MAGNETIC DEPOSIT SEPARATORS

Iron and stainless steel deposit separators are available on request with non-standard measures, according to the customer's drawings.

Examples.



## EXAMPLE OF SPECIFICATIONS

**DIADef MAGNETIC** deposit separator with magnet for thermal power station, DN65 flanged connections with PN10-16 flanges, 1/2" F vent valve connection, 1" F exhaust valve connection, maximum temperature 90°C, minimum temperature 5°C, maximum pressure 5 bar, EN10255 carbon steel, red water-based primer coating, 1,4 T Neodymium magnet.

Brand: **COMPARATO**

Code: **DFI212**

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