

#### **Electromagnetic Filter**

Tianjin North Star Technology Co., Ltd

*Efficiently remove PPM~PPB level of ferromagnetic or paramagnetic pollutants in fine powder or slurry* 



HIGH EFFICIENCY AND HIGH QUALITY MAGNETIC SEPARATION SOLUTIONS

Based on profound design capabilities, provide you with more reasonable magnetic separation solutions



BS-DV-04

- Tianjin North Star Technology Co.,Ltd

Address: 10B, Taihu beiLi, 2 District, Sixiaotun Village, Liangwangzhuang Town, Jinghai County, Tianjin, P.R.China, 301617 Tel: +86-022-87987163 E-Mail: tjbeisu@163.com Website: http://tjbeisu.cn

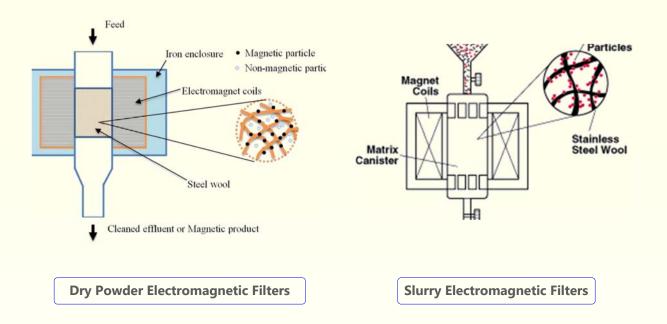
# **Electromagnetic Filter**

## **Electromagnetic filter**

The electromagnetic filter performs high-gradient magnetic separation for the material passing through the filter cartridge. When the material passes through the filter cartridge, the built-in magnetic medium can effectively remove ferromagnetic and paramagnetic impurities so as to obtain high-grade materials of PPM~PPB level.

# **Design principle**

The steel case and inside electromagnetic coil constitute an electromagnet, which can generate strong magnetic field in the coil inner hole. The magnetic matrix placed in inner hole of the coil converges the magnetic field to form a high field strength and high-gradient sorting area. The sorting area can effectively capture ferrous particles to obtain high-purity products. Performing high-frequency and low-amplitude vibration on the medium through vibrating device can effectively improve the passing capacity of non-magnetic materials and obtain greater production capacity.



# **Electromagnetic filter category**

Classified by material type: dry electromagnetic filter & slurry electromagnetic filter According to cooling method: water-cooled oil cooler & external oil-cooled machine Classified by wire coil material : copper wire or aluminium wire A variety of background field strengths and standard calibers are optional

# **Dry Powder Electromagnetic Filters**

### **Characteristics and advantages**

O Specially used to adsorb magnetic substances mixed in fine powders below 50μm

• An electromagnetic vibrator can be installed to speed up the passage of materials for slow-flowing materials

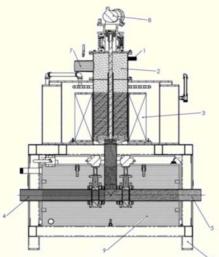
O Different screen apertures can be selected according to the material size

• Standard background field strength (3500-5000GS), the peak gauss on medium node can reach 16000GS (actual measured)

• Fully automatic iron unloading can be realized by PLC module and automatic iron removal device

### **Application industry**

Specially designed for the refinement of fine and dry powders in fields of battery source material, electronic packaging material, refractory material, alumina, talc powder, silica sand, zircon, ceramics, food and medicine.



# Standard specification sheet



Specification	Maximum field intensity (GS)	Background field strength (GS)	Cartridge Ø (mm)	Medium material	Weight (kg)	Power (kw)	Cooling System
DVG35-150	12000	3500	150	430SUS	3000	5.9	Water-cooling oil cooler
DVG35-250	12000	3500	250	430SUS	3200	7.2	Water-cooling oil cooler
DVG35-300	12000	3500	300	430SUS	4000	7.9	Water-cooling oil cooler
DVG50-100	15000	5000	100	430SUS	950	10	External oil cooling equipment
DVG50-150	15000	5000	150	430SUS	1500	11.3	External oil cooling equipment
DVG50-250	15000	5000	250	430SUS	4100	14.8	External oil cooling equipment
DVG50-300	15000	5000	300	430SUS	4200	20.6	External oil cooling equipment

Liangwangzhuang Town, Jinghai County, Tianjin,

# **Slurry Electromagnetic Filters**

## **Characteristics and advantages**

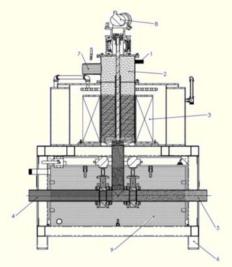
Specially used to adsorb tiny scrap iron below 50µm from ore pulp and other fluid materials
Standard background field strength (2500Gs-10000Gs), the peak gauss on medium node can reach 16000GS (actual measured)

• 4 kinds of background field strengths (2500Gs, 5000Gs, 6500Gs, 10000Gs) can be optional and one for 4 kinds of standard calibers are available

• Fully automatic iron removal function can be realized through the PLC control cabinet and the automatic iron removal device

## **Application industry**

Specially designed for the refinement of battery source materials, ceramics, uranium materials, clays, dyes, pigments and other fine industrial minerals and chemical materials.





Specification	Maximum field intensity (GS)	Background field strength (GS)	Liquid capacity (Gmp)	Cartridge Ø (mm)	Power (kw)	Weight (kg)	Cooling System
DVS10-35	12000	3500	10	89	2	1.27	Water-cooling oil cooler
DVS25-35	12000	3500	25	152	2.5	1.34	Water-cooling oil cooler
DVS50-35	12000	3500	50	203	2.7	1.5	Water-cooling oil cooler
DVS100-35	12000	3500	100	305	3.3	2.06	Water-cooling oil cooler
DVS200-35	12000	3500	200	406	3.8	2.5	Water-cooling oil cooler
DVS10-50	15000	5000	10	89	4.5	1.84	External oil cooling equipment
DVS25-50	15000	5000	25	152	6.5	2.8	External oil cooling equipment
DVS50-50	15000	5000	50	203	6.5	3.59	External oil cooling equipment
DVS100-50	15000	5000	100	305	7.5	4	External oil cooling equipment
DVS200-50	15000	5000	200	406	8.5	4.44	External oil cooling equipment