

INFESTATION TECHNOLOGY IN FLOUR PROCESSING

**Professor Li Dongsen
GGI International Ltd;**

IAOM Southeast Asia District Vietnam 2013

INFESTATION TECHNOLOGY

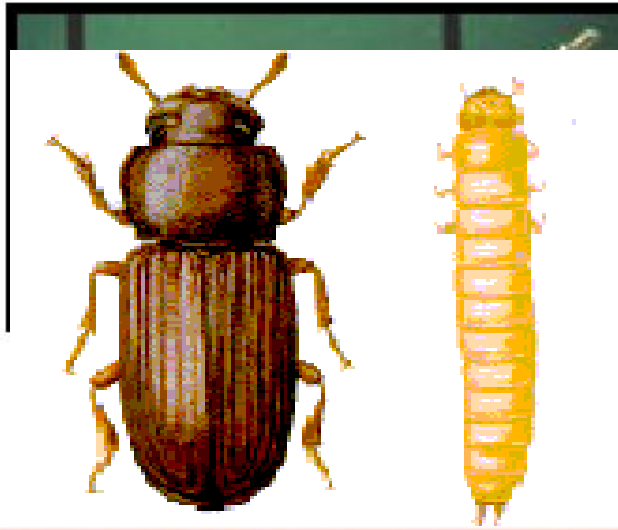
1. PESTS IN THE MILL

2. INFESTATION CONTROL MEASURES

- ◆ Separation by sifter
- ◆ Destroy by impact destroyer
- ◆ Regular fumigation
- ◆ Isolation measures
- ◆ Strengthen management of equipment and the environment

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1. PESTS IN THE FLOUR MILL



FLOUR BEETLE

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1. PESTS IN THE FLOUR MILL



Grain weevil



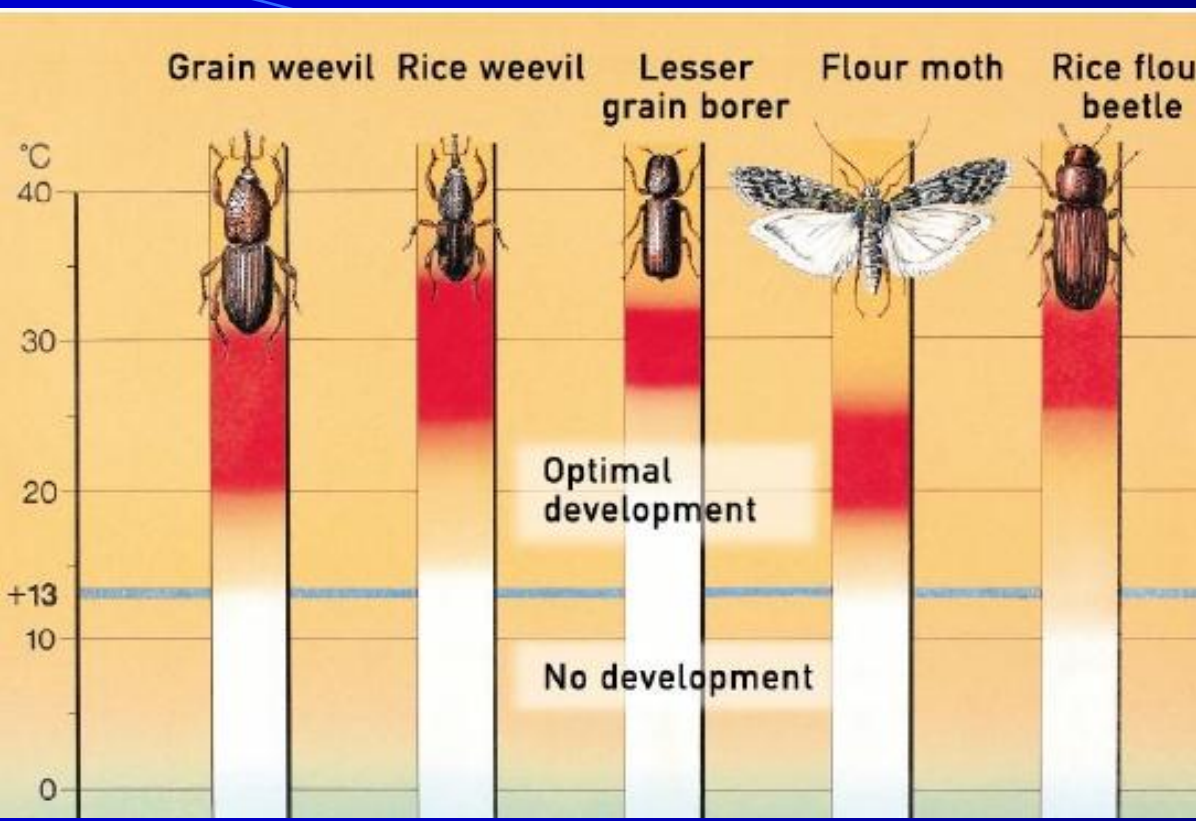
Maize weevil



Rice weevil

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1. PESTS IN THE FLOUR MILL



Pest suitable growth temperature



Egg to adult growth cycle

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PEST FEATURES



CLASS	WEEVIL	BEETLE
Body Length (mm)	2.5-4.7	2.0-20
适合产卵月份		
Growth temperature (°C)	14-43	14-43
Breed temperature (°C)	24-27	28-35
Breed cycle time (day)	28-40	18-70
Egg length (mm)	0.6-0.7	0.6-0.7
Egg width (mm)	0.3	0.3-0.4

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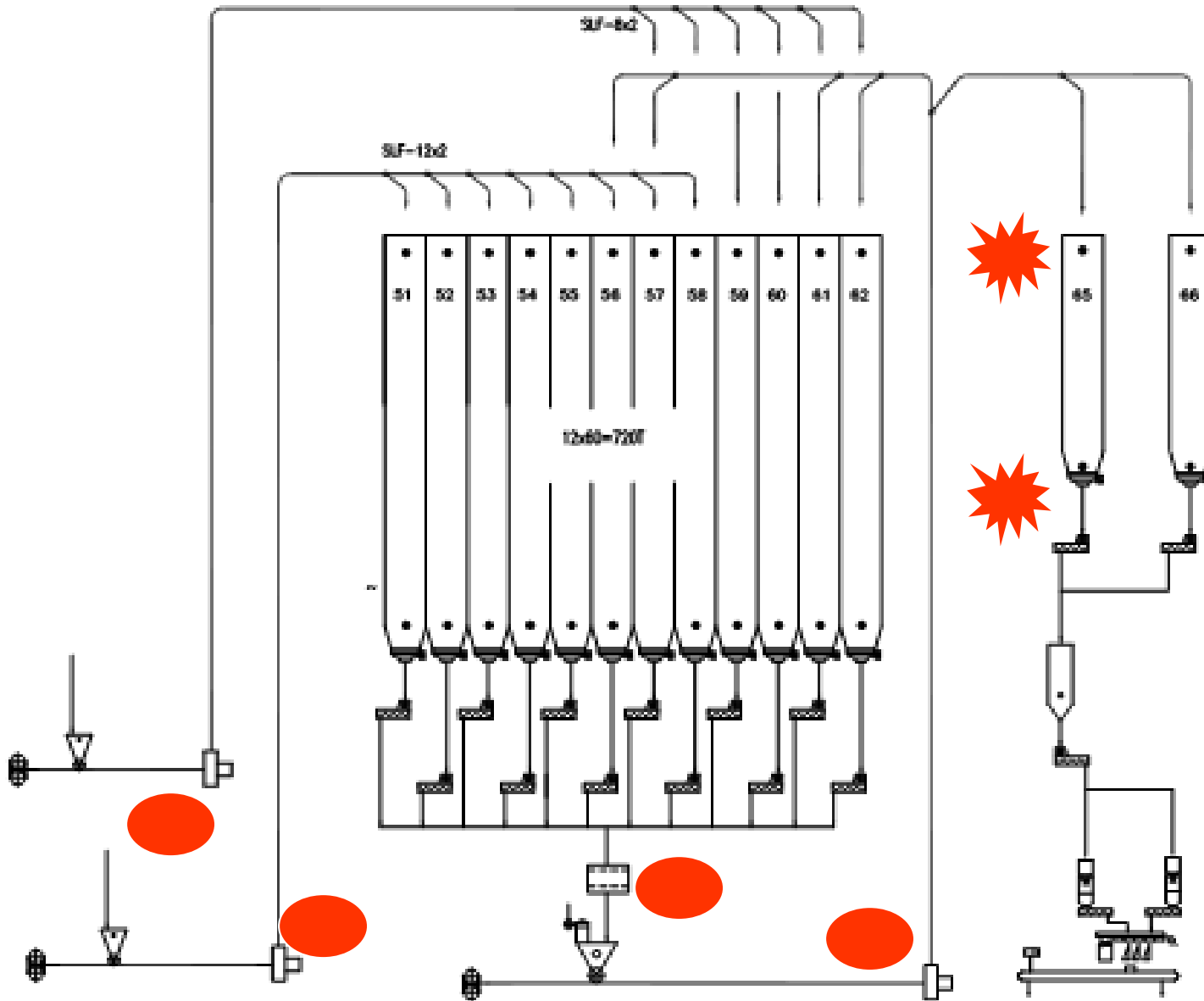
1. PESTS IN THE FLOUR MILL



2. INFESTATION CONTROL MEASURES

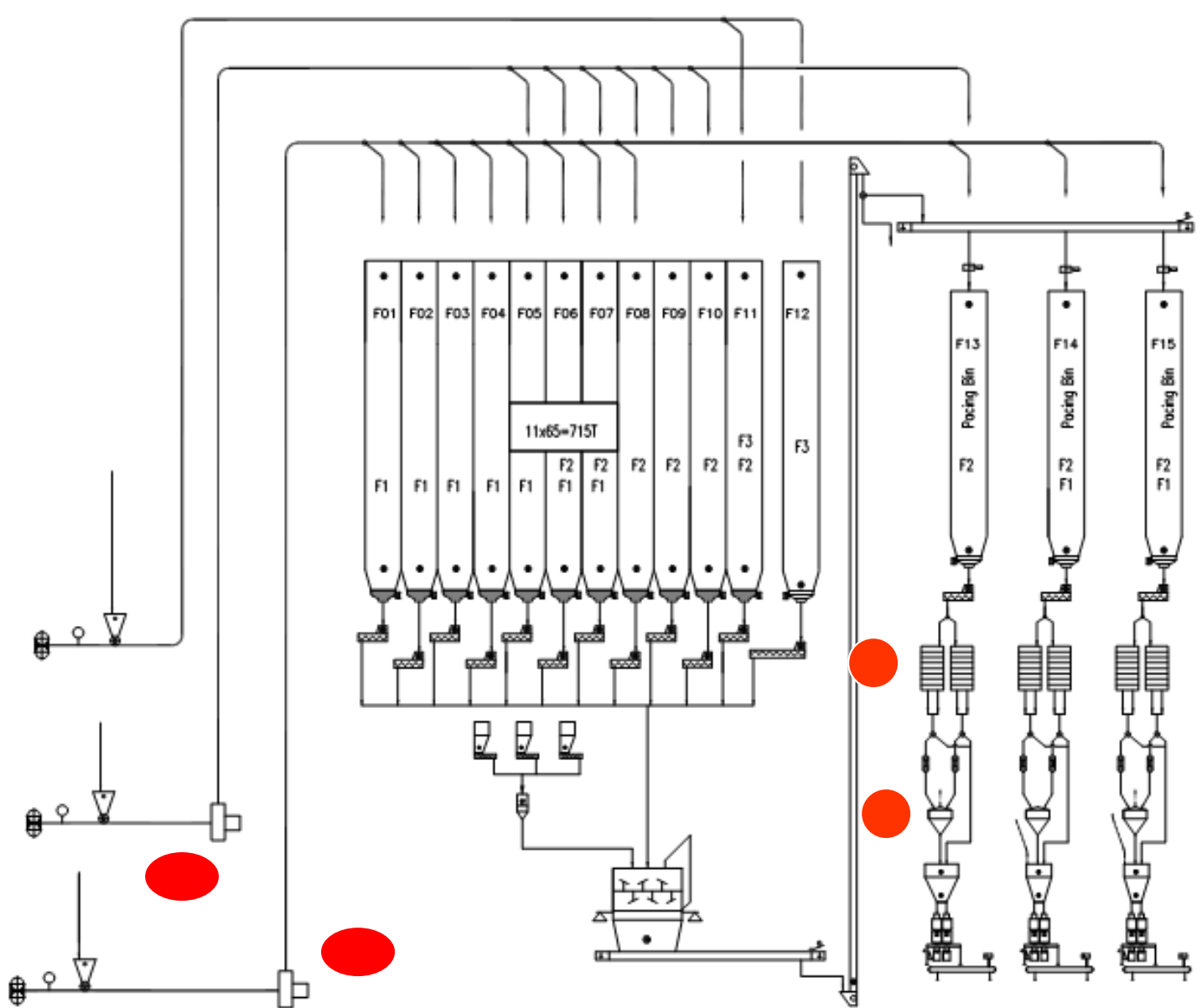
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**Traditional
flow sheet**

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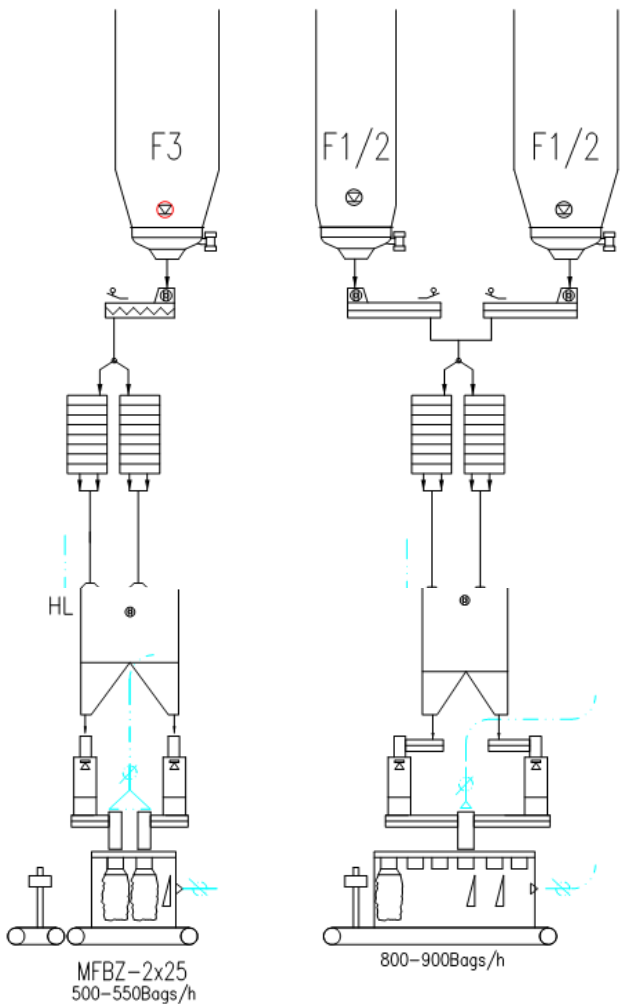


Lower flour temperature

Final flour impact destroyer

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MFSC CHECK SIFTER BEFORE PACKER



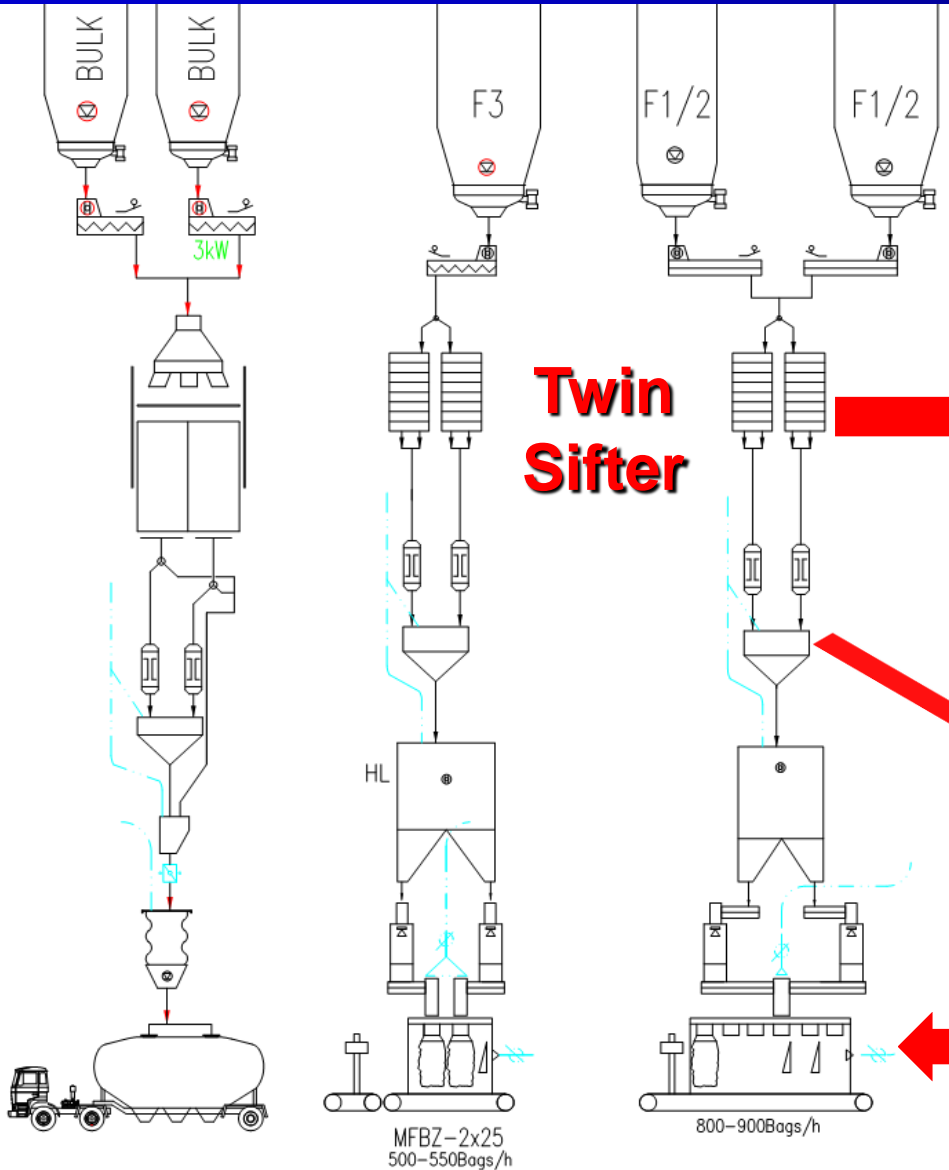
**Twin Sifter
XFS-100/120**

Sieve mesh 200-250 μ



Packer

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Twin Sifter

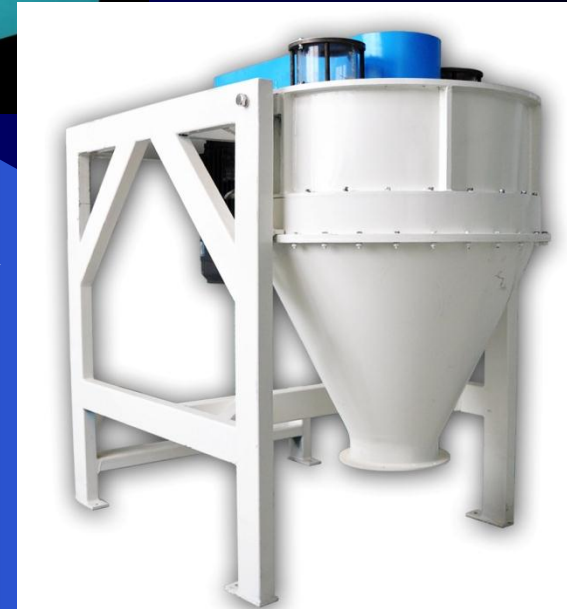


MFSC100/120

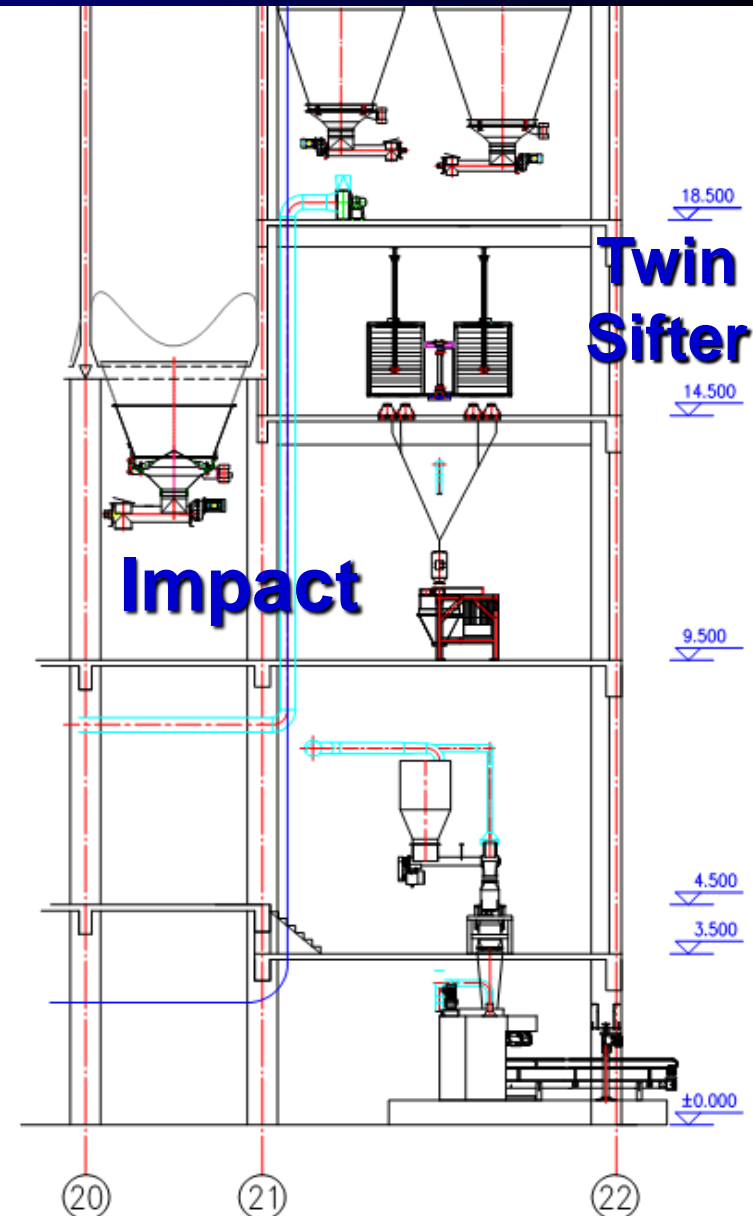
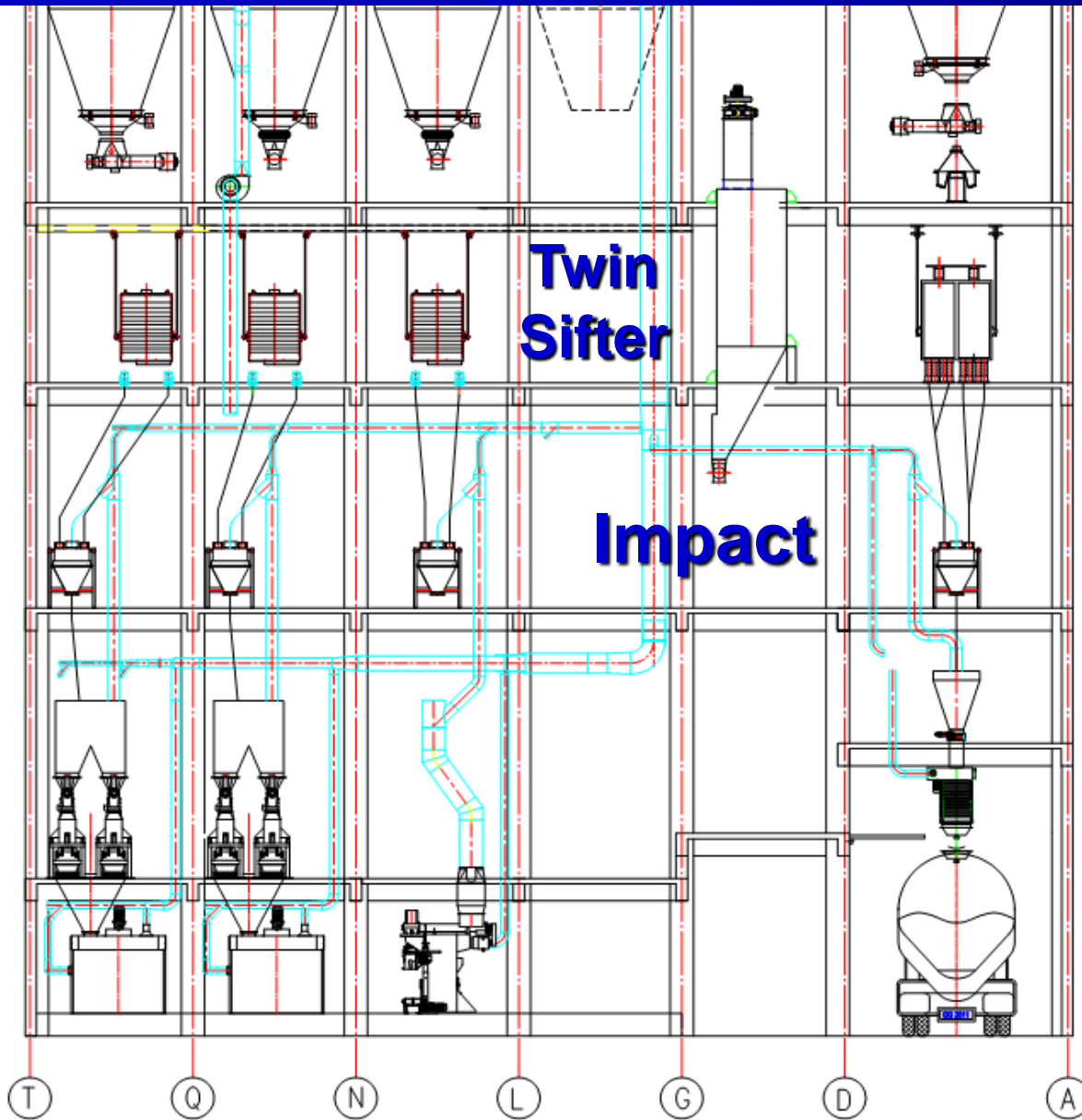
BLSC-66C

Impact

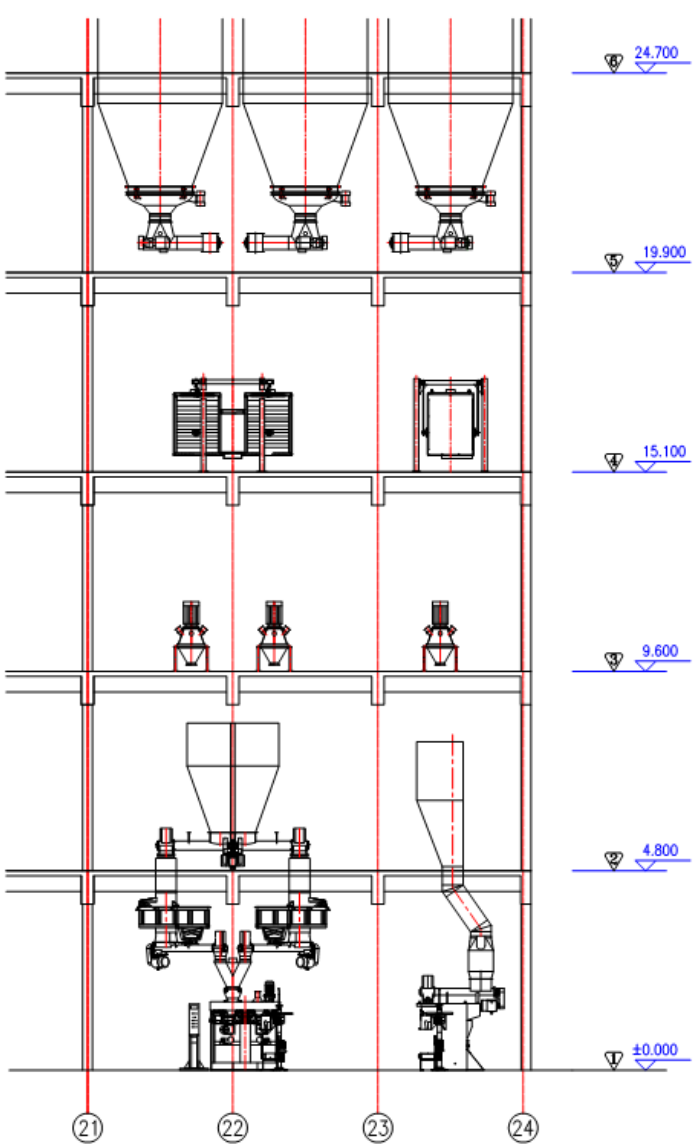
Packer



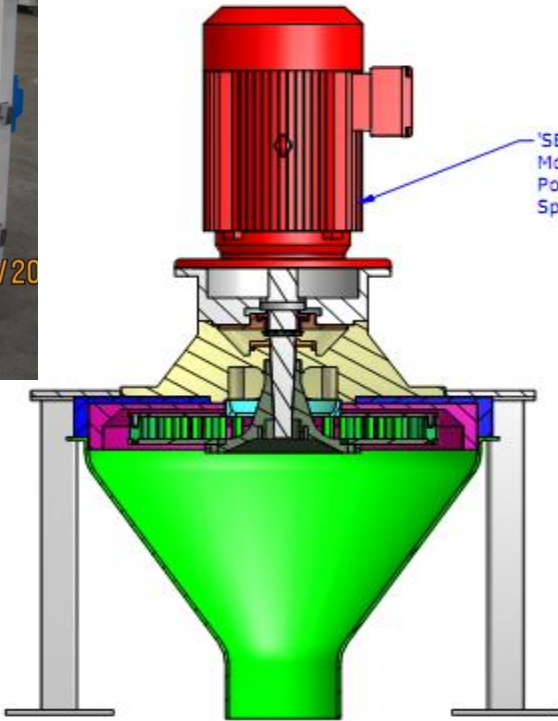
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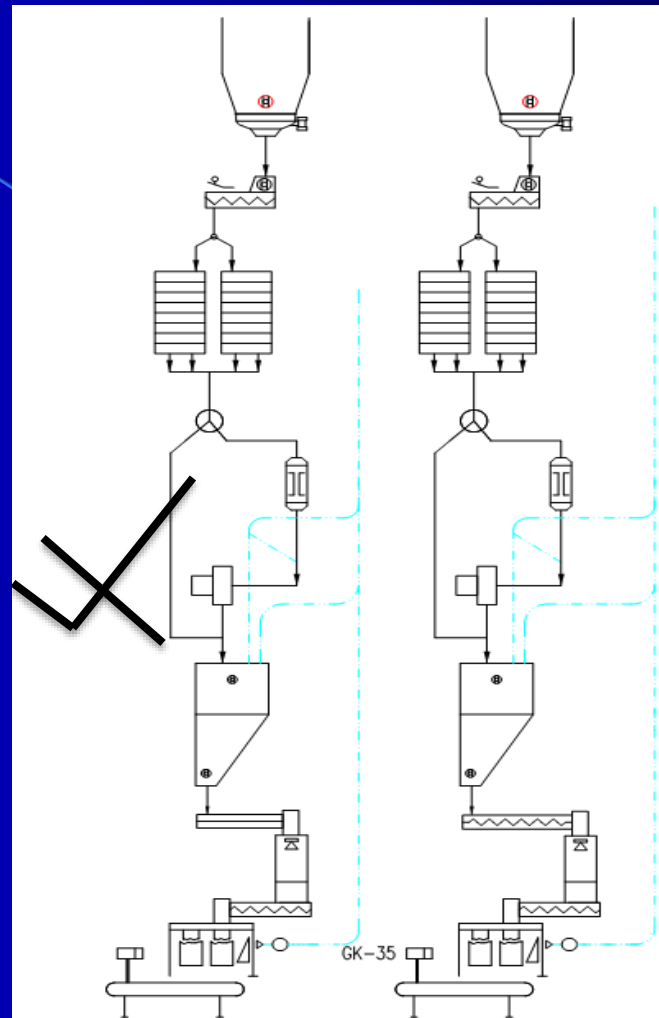
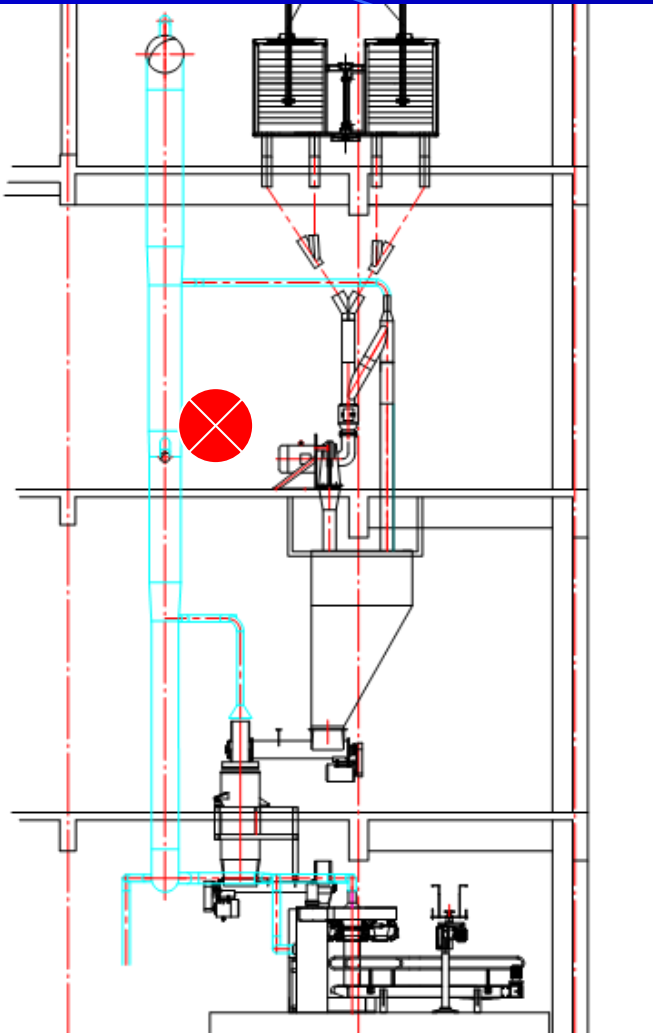
MFSC 100/120



BLSC-43/51

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Horizontal impact destroyer type is not the ideal choice !
Low efficiency, large air volume required !



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Twin sifter MFSC 100/120

**Frame Size: 1000*1000 or
1200*1200.**

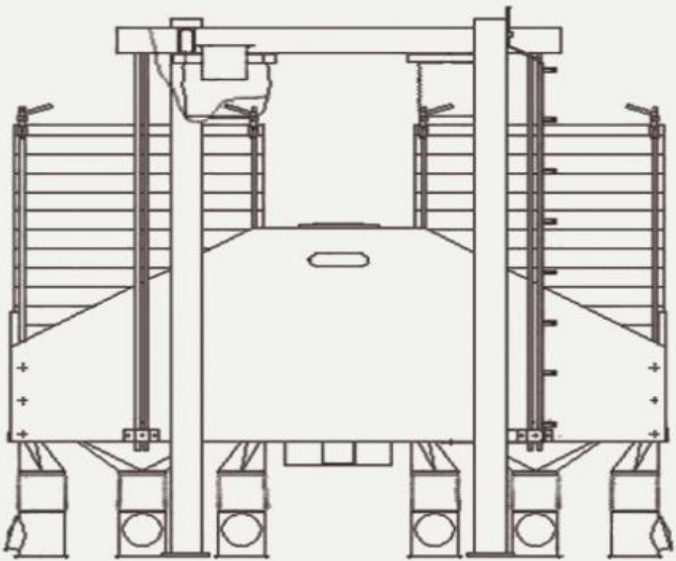
Capacity: 20-25 t/h.

**Suitable: 800-1000 hr / 25 kg
6 - spout carousel**



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**NEW ENCLOSED !
10-18 FRAME**



**OLDER
OPEN**



31/10/20

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MONO SIFTER

Frame Size 1000*1000 or 1200*1200

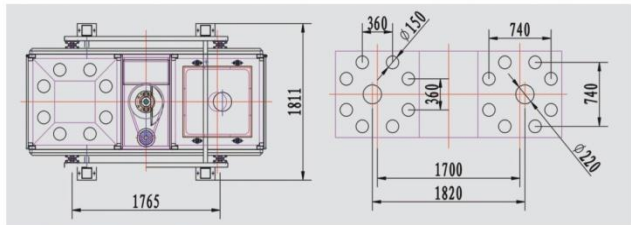
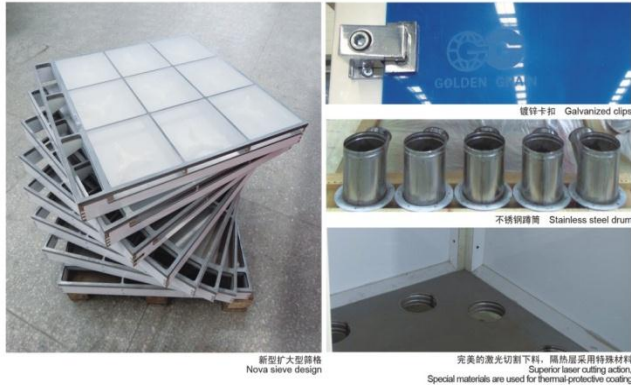


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Mono-sifter with enclosed metal cover



FRAME SIZE: 1000*1000 or 1200*1200

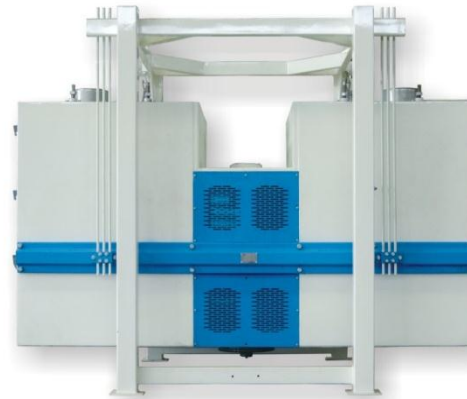


技术参数表 SPECIFICATION

技术参数 Technical data 型号规格 Type	纯筛理面积 Sifting area m ²	生产能力 Capacity t/h	电机 Power kw	筛格尺寸 Sieve Size mm	筛路层数 Layer Quantity Ly	箱体重量 Weight Kg	外型尺寸(长X宽X高) Size(L*W*H) mm
FSFJZx10x1200	25	30-40	2.2	1200x1200	10	1680	3058x2011x2250
FSFJZx10x1000	17	20-27	2.2	1000x1000	10	1500	2858x1811x2250
FSFJZx10x830	11.4	15-18	1.5	830x830	10	815	2120x1440x1220

备注：产量计算按照筛孔250um，筛格层数范围8-12层。
Remark: The above capacity base on mesh 250um. Layer scope 8-12layer.

封闭式双仓方筛 ◀ FSFJ TWIN CHECK SIFTER



- 金属筛箱，内置双面贴塑木质筛格，铝合金筛芯。
- 结构合理，性能可靠，操作维修方便。
- 压紧装置简单可靠，不窜漏。
- 高转速，小回转半径，筛粉效率高。
- 多四个外通道，筛路配置更加灵活，增加筛理面积。
- 筛箱悬挂于机架上，安装方便；运转平稳。
- Metallic cabinet with plastic wood sieves inside it, and aluminium inner frame is of module making.
- Rational construction, reliable performance and easy operation.
- Absolutely leak-proof sieve stack.
- High rotate speed, small gyroradius and high capacity.
- Add another four outer path to obtain more flexible sieve arrangement and more sifting area.
- Easy installation, smooth operation.

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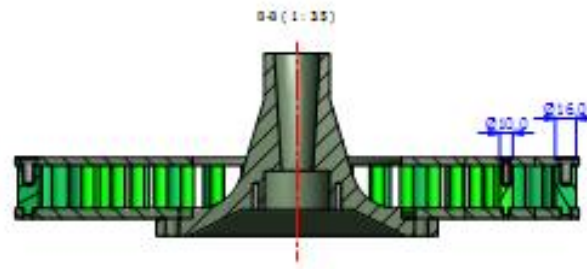
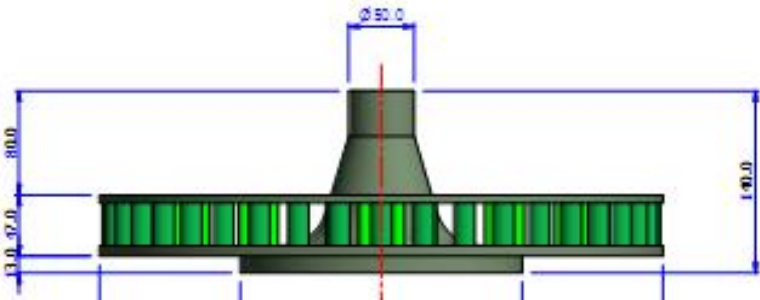
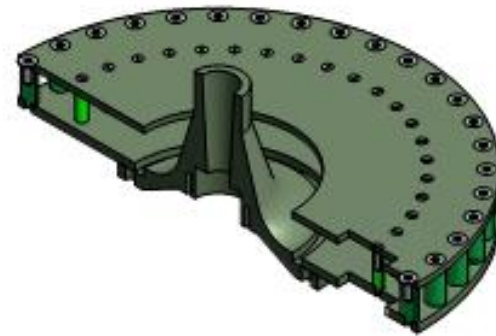
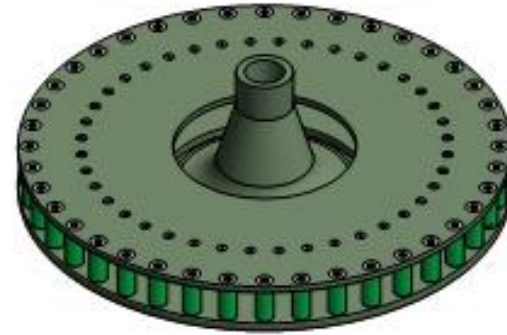
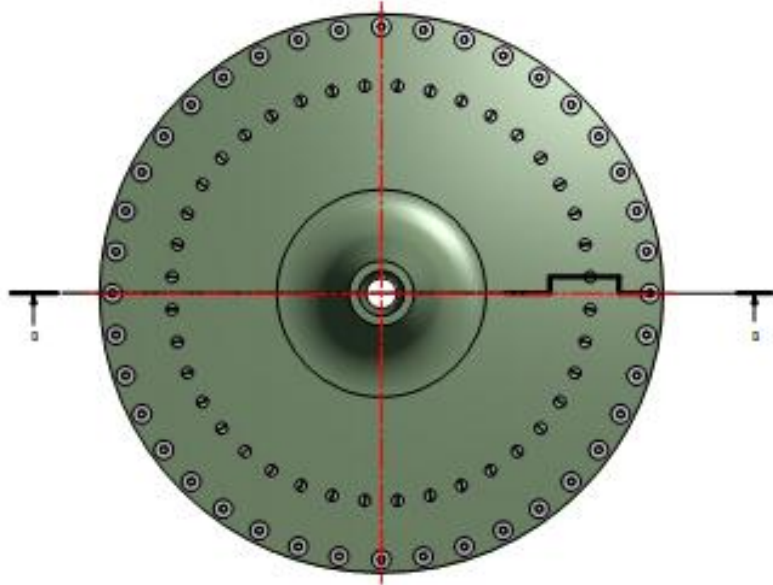
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IMPACT DESTROYER ROTOR BLSC 43/51



IMPACT DESTROYER



MANUFACTURE



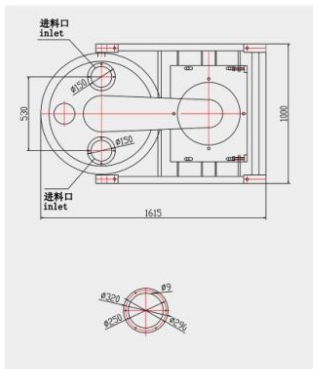
INFESTATION CONTROL

IMPACT DESTROYER



INFESTATION CONTROL

立式杀虫机 INSECT DESTROYER



出料口
outlet



技术参考数: SPECIFICATION

型号规格 Type	技术参数 Technical data	转子直径 Rotor diameter mm	电机功率 Motor output KW	产量(t/h) Throughput rate	
				50HZ 3000 rpm	60HZ 3600 rpm
LSCJ-66C	660	660	11	4.5	-4.5
			15	4.5-6	4.5-6
			18.5	6-9	6-9
			22	11	11
			30	11-15	11-15
			37	15-18.5	15-18.5
			45	18.5-22	18.5-22
			55	23-27	23-27
			75	27	27
			90	27-33	27-33
		110	33-40	33-40	

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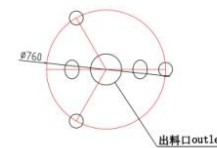
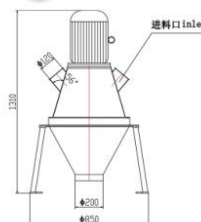


特点简介

- 产量大
- 回风小, 密封性好
- 运行平稳, 噪音低
- 杀虫效果高于卧式杀虫机
- 卫生条件好

Features

- High output
- Superior leakproofness
- Smooth operation, Low noise
- Good insecticidal effect
- Excellent sanitation




技术参考数: SPECIFICATION

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				50HZ 3000 rpm	60HZ 3600 rpm
LSCJ-43	430	430	4.0	-1.5	-1.5
			5.5	1.5-3.0	1.5-3.0
			7.5	3.0-4.5	3.0-4.5
LSCJ-51	510	510	11	4.5	4.5
			15	4.5-6	4.5-6
			18.5	6-9	6-9
			22	11	11



2. INFESTATION CONTROL MEASURES

- ◆ Separation by sifter
- ◆ Destroy by impact entoleter
- ◆ Regular fumigation
- ◆ Isolation measures 
- ◆ Strengthen management of equipment and the environment

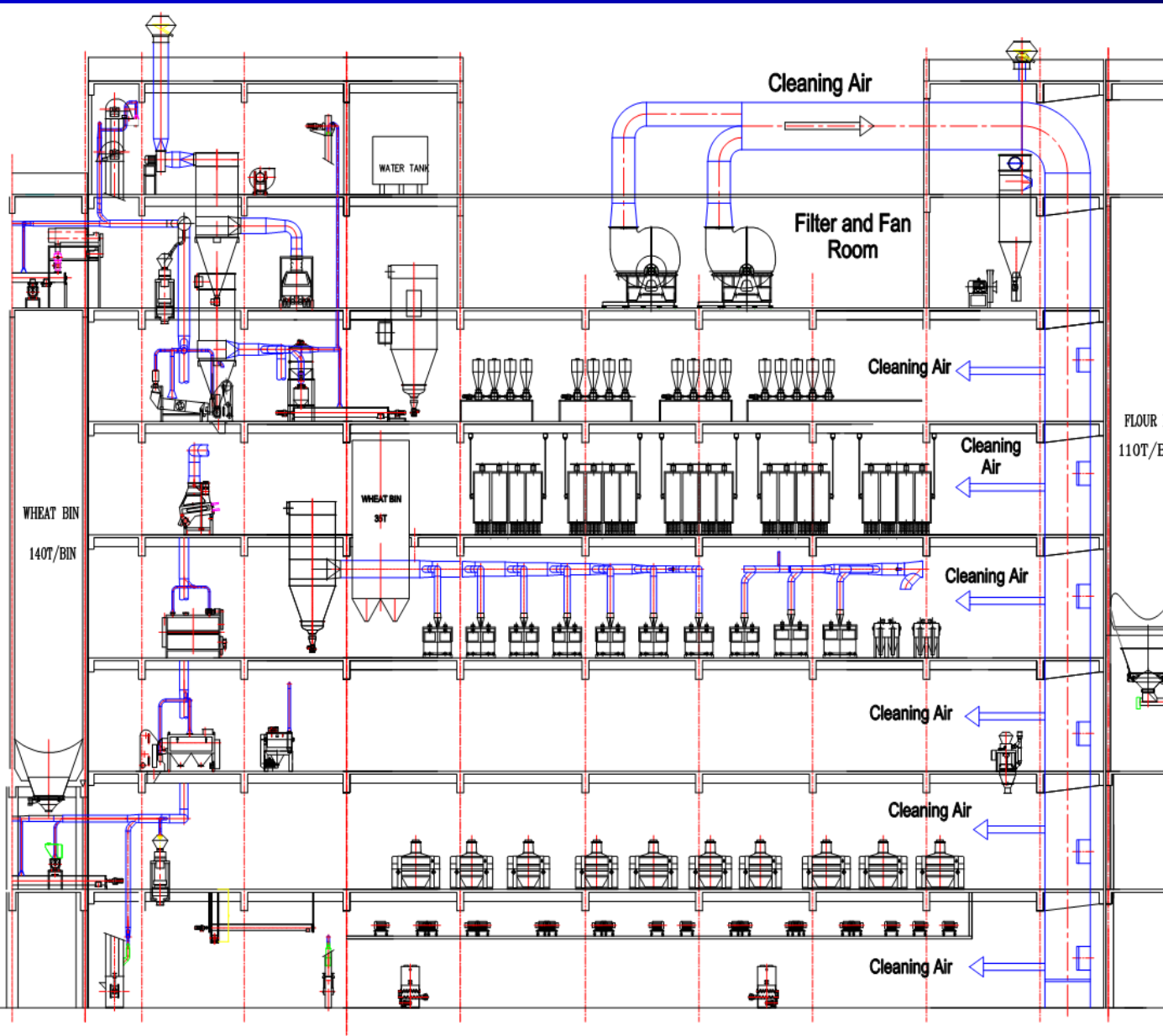
INFESTATION TECHNOLOGY



EXTERNAL ENVIRONMENTAL FACTORS

- **Flour mill building surrounding areas, close farmland, trees, plants and grass.**
- **Waste water nearby.**
- **Doors and windows not airtight, strong lights at night. Insect body and limbs fragments into flour.**

INFESTATION TECHNOLOGY



Closed windows

Cycle ventilation system

Lower temp. by 1-3°C from outside

Flour mill air flow, feels comfortable

Power consumption no increase

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THANK YOU