



**EMMEBI IMPIANTI**  
**AEROTEXTILE TECHNOLOGY**

# **INERTIAL CYCLONE & CYCLONE WITH COMPACTING SCREW 'CVC'**

The CVC is an inertial cyclone made of painted sheet metal in which the dusty air enters tangentially and is separated from contamination and waste, which ends up directly in a hopper in which a compacting screw rotates by an energy-efficient gear motor.

This system is used to separate air and dust and to collect the waste, which is then recomacted and automatically ejected.

EMMEBI also makes customised cyclones for processing wood waste, plaster, cement, synthetic fibres, etc. etc. for capacities up to 25.000 m<sup>3</sup>/h



**EMMEBI IMPIANTI s.r.l.**

Via Achille Grandi, 18 - 20050 Liscate ( MI ) - ITALY

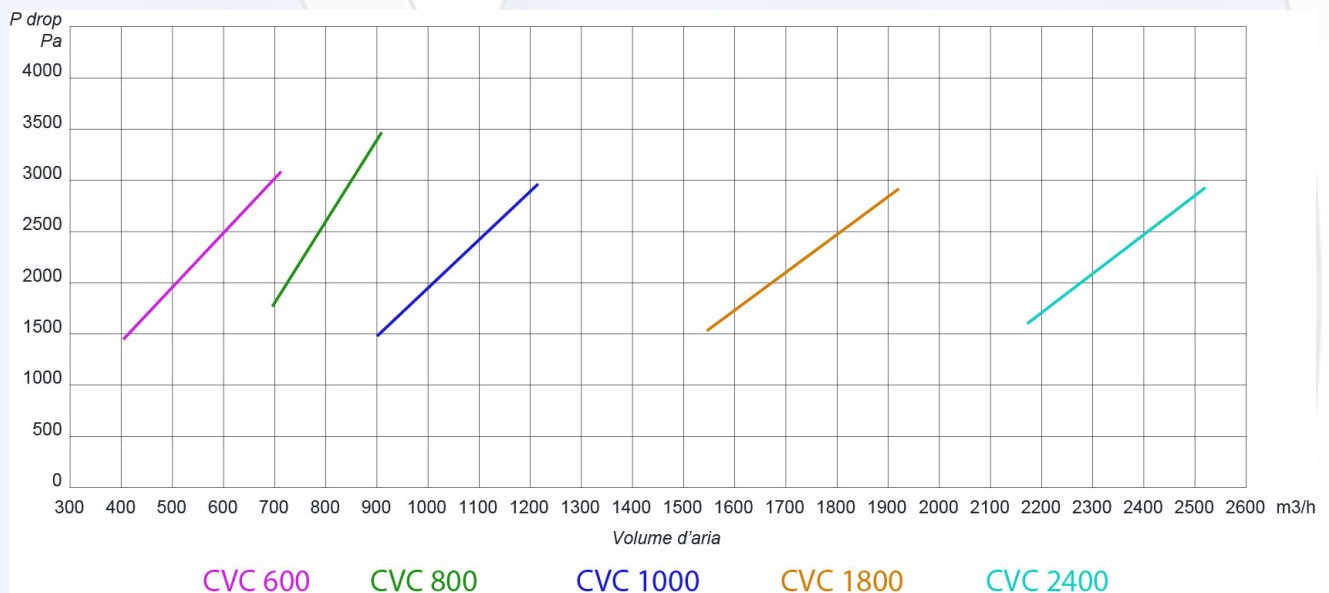
Tel . +39.02.95.74.09.03 (3 lines) [www.emmebi-impianti.it](http://www.emmebi-impianti.it) – [contact@emmebi-impianti.it](mailto:contact@emmebi-impianti.it)



## TECHNICAL DATA

Gear motor main voltage : 400 V - 50 Hz - 3F (400V - 60Hz - 3F)  
Installed power : 0,75 kW

TYPE	HAIR CAPACITY NOMINAL
CVC 600	600 m <sup>3</sup> /h
CVC 800	800 m <sup>3</sup> /h
CVC 1000	1000 m <sup>3</sup> /h
CVC 1800	1800 m <sup>3</sup> /h
CVC 2400	2400 m <sup>3</sup> /h



For thin particle → consider a greater volume

For bigger particle → consider a smaller volume

**Air volume:** 300-1000 m<sup>3</sup>/h **Dust Quantity:** 50 to 220 Kg/h **P drop:** 1200-2000Pa

**min particle size separated at 50%** μm 3-5

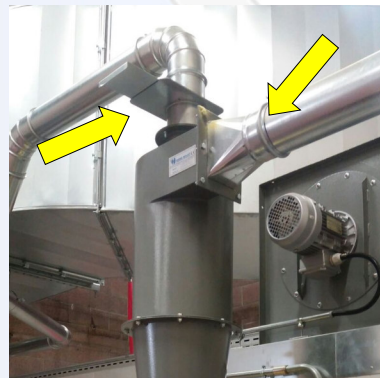
**min particle size separated at 59%** μm 10-20



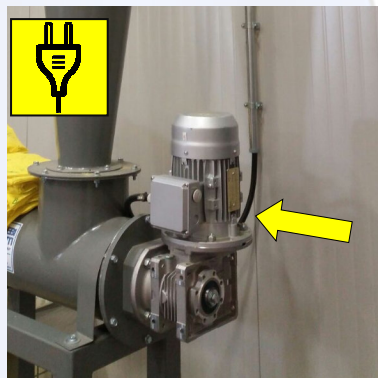
## INSTALLATION PROCEDURES

The Cyclone filter can indifferently work in a circuit in pressure or in depressure.

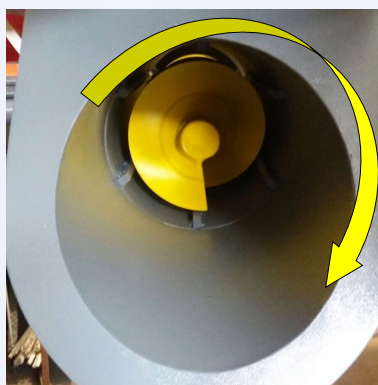
- 1 Connect the suction points to the filtering equipment.  
The return pipe placed on the top of the cyclone should be equipped by a guillotine damper.  
In bases of the regulation of this damper we can reduce the air return flow to the filter.



- 2 Plug to the electricity the rotating gear motor



- 3 Check that the screw is running in the right direction.  
A wrong rotation (opposite direction) may break the compacting screw



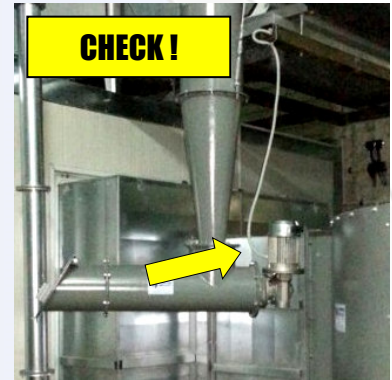
- 4 During the starting procedures, when the cyclone starts empty, it's necessary to create a plug with fabric or juta bag until the material that falls into the compacting screw creates itself a plug that ejects the fabric. This procedure is necessary for avoid the blowing of fabric and waste into the department.



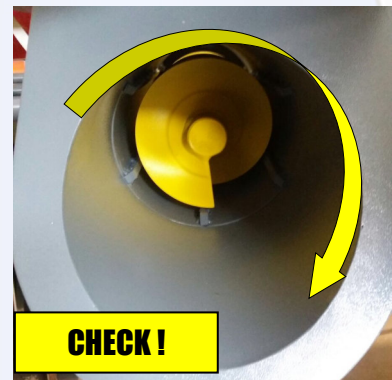


## MAINTENANCE PROCEDURES

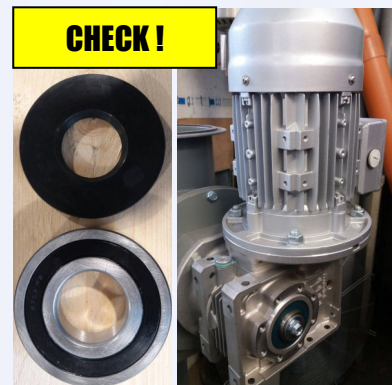
1 Periodically check the absorption of the gear motor



2 Periodically check the rotation of the screw



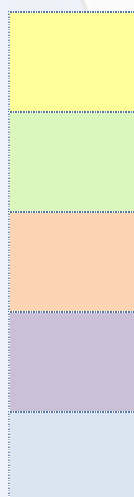
3 Check every six months the status of the ball bearings and running mechanisms





## MAINTENANCE LIST

Spare part	Frequency of intervention					
	Weekly	Monthly	Every 3 months	Every 6 months	Every Year	Every 2 years
Gear Motor				Grease	Check the status of the component	
Iron Screw				Check the status of the component		



**Check the status of the component**

**Change the component (advised)**

**Change the component (max time)**

**Grease**

**We advice to keep one piece or set in your storehouse**

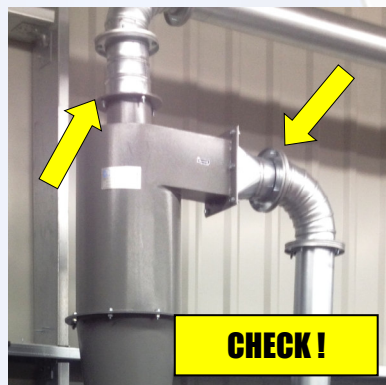


## INTERVENTIONS

- 1 If the ball bearings are found worn replace them.  
However the average working time is up to 20,000 hours.

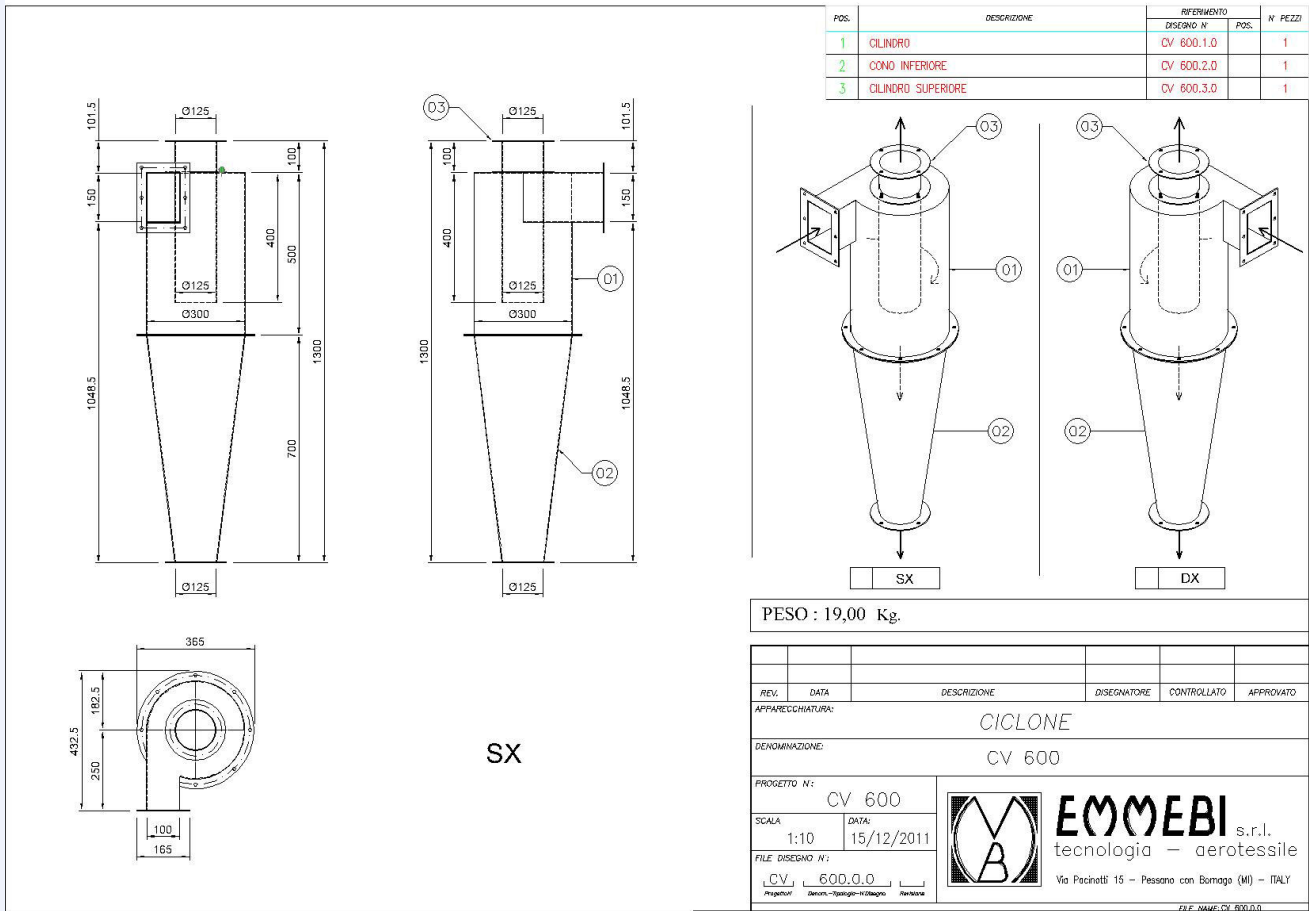


- 2 If the compacting valve doesn't discharge the material, check that the air pipes are not blocked otherwise clean them. If the pipes are free, then close partially the air return pipe with guillotine.





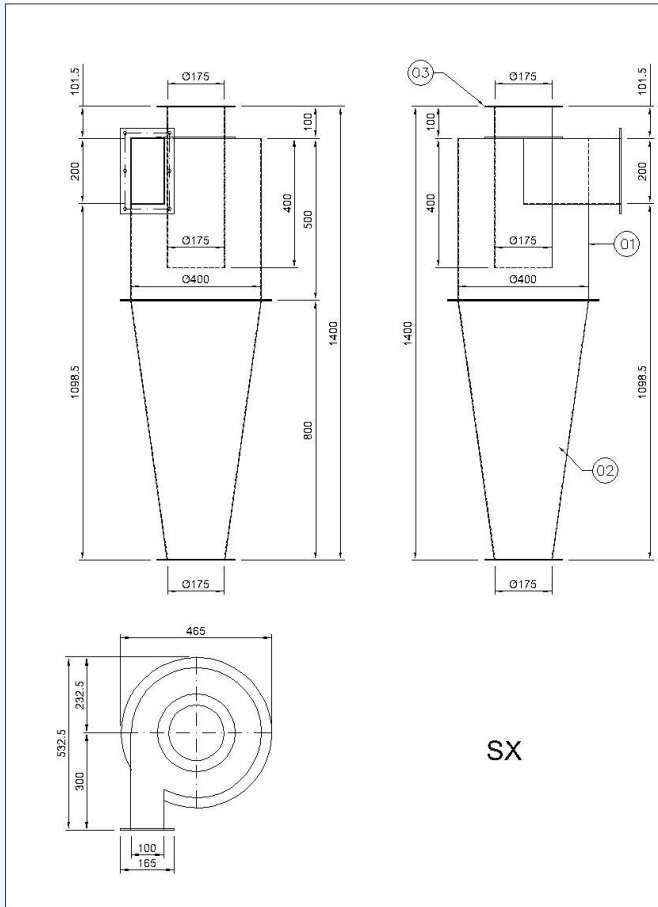
## CVC ASSEMBLY DRAWING



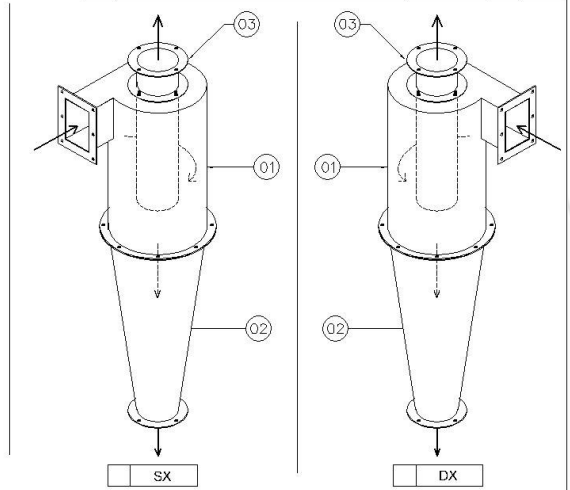
POS.	DESCRIZIONE	RIFERIMENTO		N° PEZZI
		DISEGNO N°	POS.	
1	CILINDRO	CV 600.1.0		1
2	CONO INFERIORE	CV 600.2.0		1
3	CILINDRO SUPERIORE	CV 600.3.0		1

PESO : 19,00 Kg.

REV.	DATA	DESCRIZIONE	DISEGNATORE	CONTROLLATO	APPROVATO
APPARECCHIATURA: <b>CICLONE</b>					
DENOMINAZIONE: <b>CV 600</b>					
PROGETTO N°: <b>CV 600</b>		<b>EMMEBI</b> s.r.l. tecnologia - aerotessile Via Pacinetti 15 - Pessano con Bornago (MI) - ITALY <small>FILE NAME: CV_600.0.0</small>			
SCALA: <b>1:10</b>	DATA: <b>15/12/2011</b>				
FILE DISEGNO N°: <b>CV_600.0.0</b>					

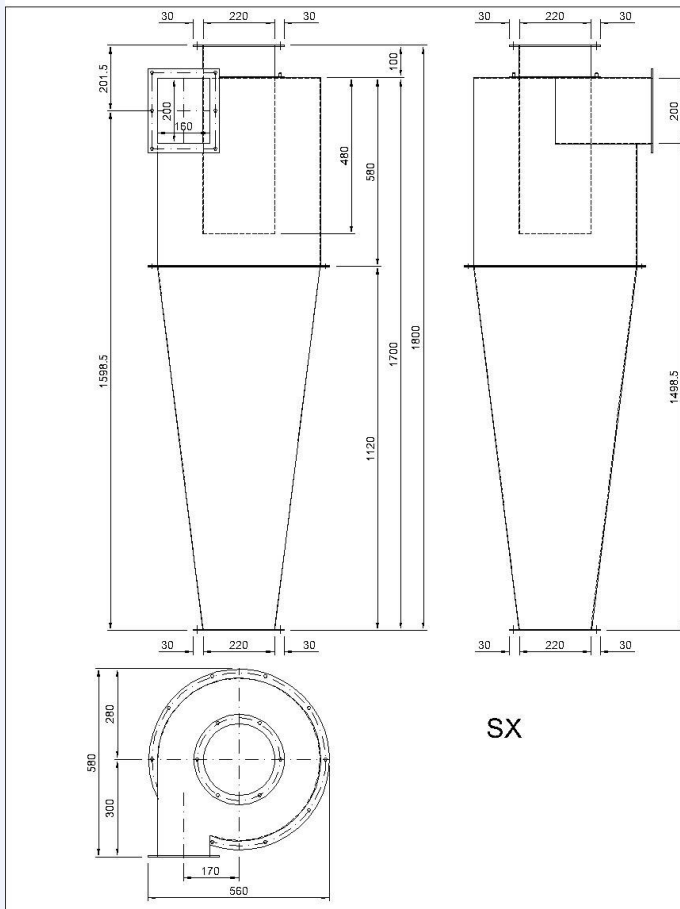


POS.	DESCRIZIONE	RIFERIMENTO		
		DISEGNO N.	POS.	N. PEZZI
1	CILINDRO	CV 1000.1.0		1
2	CONO INFERIORE	CV 1000.2.0		1
3	CILINDRO SUPERIORE	CV 1000.3.0		1



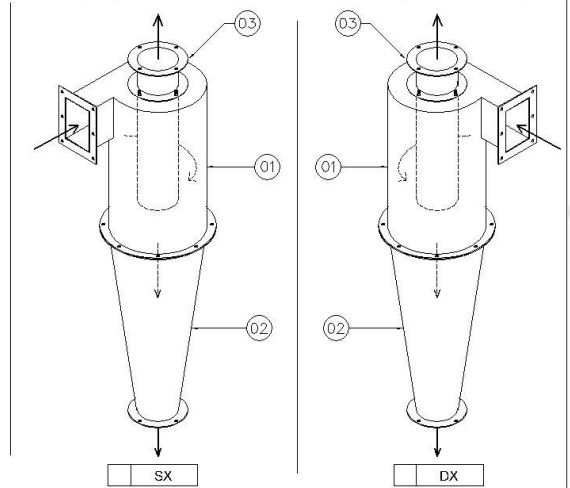
PESO : 27 Kg.

REV.	DATA	DESCRIZIONE	DISEGNATORE	CONTROLLATO	APPROVATO
APPARECCHIATURA: <b>CICLONE</b>					
DENOMINAZIONE: <b>CV 1000</b>					
PROGETTO N°: <b>CV 1000</b>		<b>EMMEBI</b> s.r.l. tecnologia - aerotessile Via Piacinotti 15 - Pessano con Bornago (MI) - ITALY <small>FILE NAME: CV_1000.0.0</small>			
SCALA: <b>1:10</b>	DATA: <b>17/07/2013</b>				
FILE DISEGNO N°: <b>CV_1000.0.0</b>					



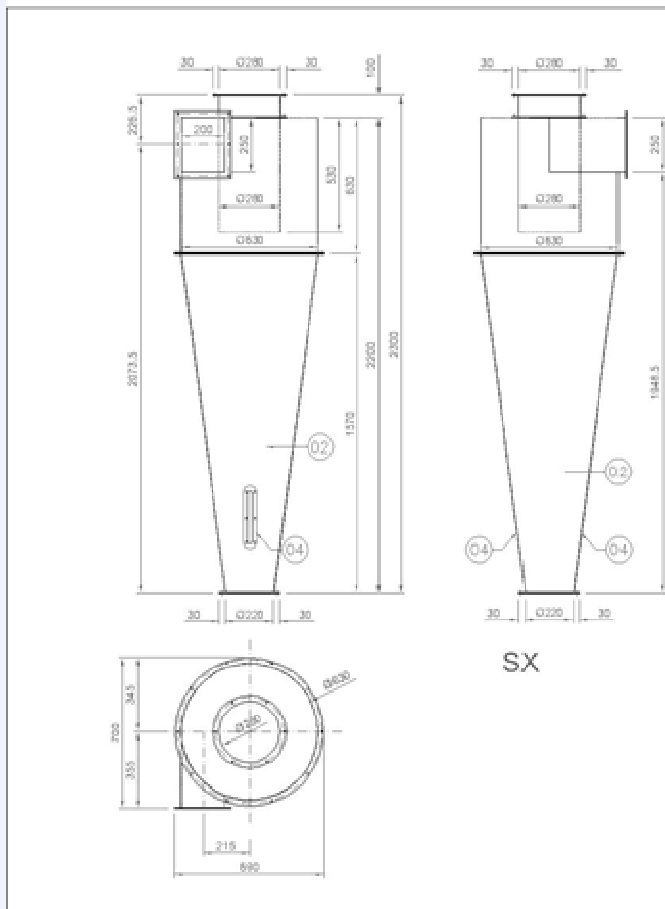
SX

POS.	DESCRIZIONE	RIFERIMENTO		N. PEZZI
		DISEGNO N.	POS.	
1	CILINDRO	CV 1800.1.0		1
2	CONO INFERIORE	CV 1800.2.0		1
3	CILINDRO SUPERIORE	CV 1800.3.0		1

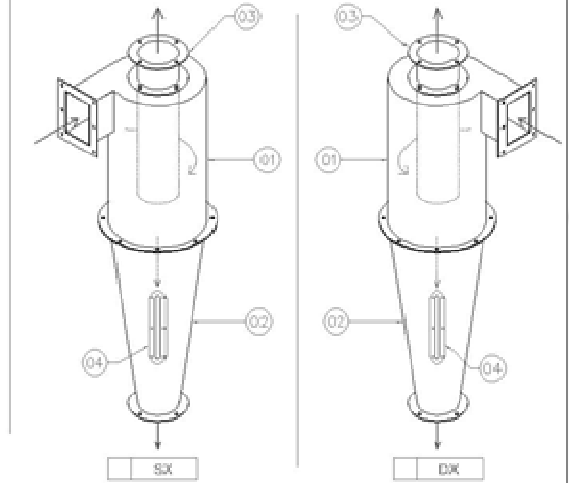


PESO : 40,00 Kg.

REV.	DATA	DESCRIZIONE	DISEGNATORE	CONTROLLATO	APPROVATO
APPARECCHIATURA: <b>CICLONE</b>					
DENOMINAZIONE: <b>CV 1800</b>					
PROGETTO N°: <b>CV 1800</b>		<b>EMMEBI</b> s.r.l. tecnologia - aerotessile Via Pacinotti 15 - Pessano con Bornago (MI) - ITALY <small>FILE NAME: CV_1800.DWG</small>			
SCALA: <b>1:10</b>	DATA: <b>16/06/2015</b>				
FILE DISEGNO N°: <b>CV_1800.0.0</b>					



POS.	DESCRIZIONE	REFERENZIA	QUANTITA'	UNITA'
1	CILINDRO	CV 2400.1.0	1	
2	CONO INFERIORE	CV 2400.2.0	1	
3	CILINDRO SUPERIORE	CV 2400.3.0	1	
4	DELU'	CV 08.250.60	2	

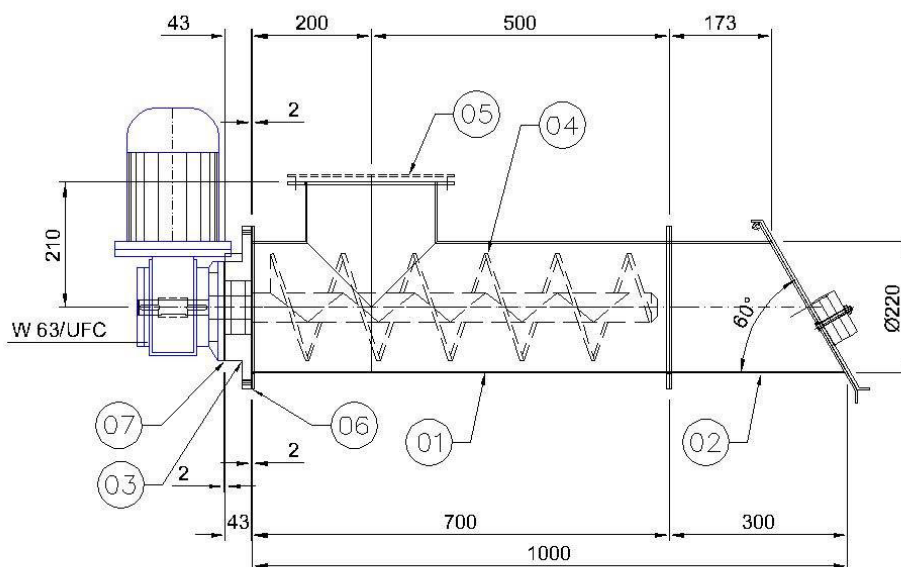


**PESO : 55,00 Kg.**

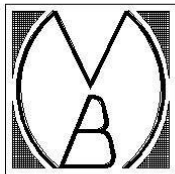
REV.	DATA	DESCRIZIONE	DISSEGNATORE	CONTROLLATO	APPROVATO
APPROVAZIONE: <b>CICLONE</b>					
DENOMINAZIONE: <b>CV 2400</b>					
PROGETTO N.1: <b>CV 2400</b>		<b>EMMEBI</b> s.r.l. tecnologia - aerotessile Via Padrioli 15 - Pesaro con Borgo (PS) - ITALY			
SCALA:	DATA:				
1:15	11/06/2020				
FILE DESIGN IN:					
CV 2400.0.0					
Pagine: 1/1					



POS.	DESCRIZIONE	RIFERIMENTO		N° PEZZI
		DISEGNO N°	POS.	
1	TRONCO COCLEA	VC 220.1.0		1
2	TRONCO DI SCARICO	VC 220.2.0		1
3	FLANGIA / SUPPORTO CUSCINETTO	VC 220.3.0		1
4	COCLEA	VC 220.4.0		1
5	FLANGIA COLLEGAMENTO APPARECCHIATURA	VC 220.5.X		1
6	FLANGIA Ø220 BLOCCA CUSCINETTO	VC 220.6.1		1
7	FLANGIA Ø180 BLOCCA CUSCINETTO	VC 220.6.2		1







PESO : .... Kg.

REV.	DATA	DESCRIZIONE	DISEGNATORE	CONTROLLATO	APPROVATO
APPARECCHIATURA: VALVOLA COMPATTATRICE					
DENOMINAZIONE: VC 220					
PROGETTO N°: VC 220		 <b>EMMEBI</b> s.r.l. tecnologia - aerotessile Via Pacinotti 15 - Pessano con Bornago (MI) - ITALY			
SCALA: 1:10	DATA: 21/09/12				
FILE DISEGNO N°: VC 220.0.0					
FILE NAME: VC 220.0.0					



## SPARE PARTS LIST

pos	ITEM	CVC 600	CVC 800	CVC 1000	CVC 1800	CVC 2400
1	Gear Motor 	n.1 0,75 kW	n.1 0,75 kW	n.1 0,75 kW	n.1 0,75 kW	n.1 0,75 kW
2	Bearing 40-90 	n.1 63082 RS	n.1 63082 RS	n.1 63082 RS	n.1 63082 RS	n.1 63082 RS
3	Dust sealers for bearing 40-90 	n.2 40-90-10	n.2 40-90-10	n.2 40-90-10	n.2 40-90-10	n.2 40-90-10
4	Iron Screw - Cochlea 	n.1	n.1	n.1	n.1	n.1