



MODEL CX412
2 HP DUST CYCLONE
USER MANUAL

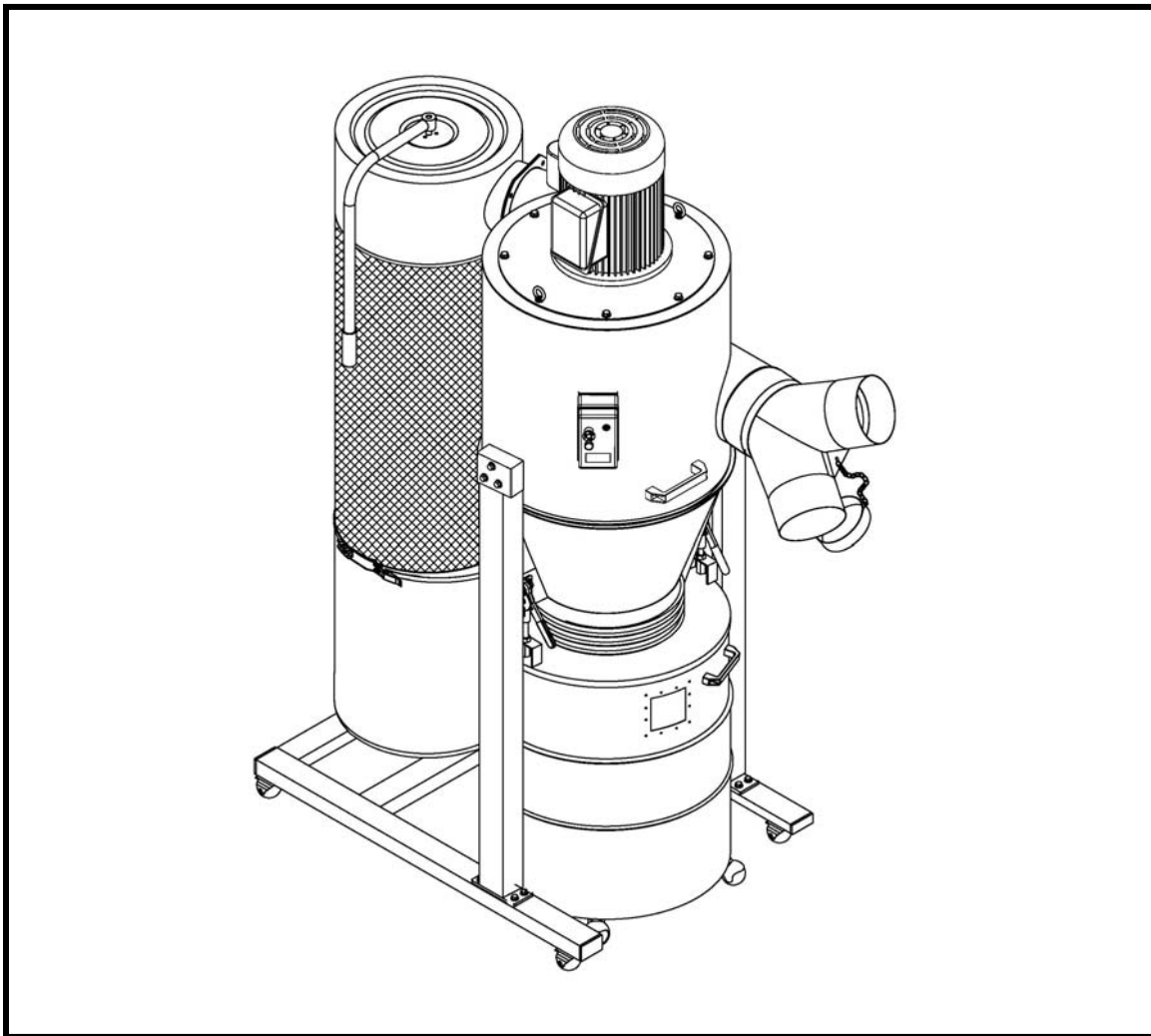


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GENERAL SAFETY INSTRUCTIONS FOR MACHINES

Extreme caution should be used when operating all power tools. Know your power tool, be familiar with its operation, read through the user manual and practice safe usage procedures at all times.

- ❖ **ALWAYS** read and understand the user manual before operating the machine.
- ❖ **CONNECT** your machine ONLY to the matched and specific power source.
- ❖ **ALWAYS** wear safety glasses respirators, hearing protection and safety shoes, when operating your machine.
- ❖ **DO NOT** wear loose clothing or jewelry when operating your machine.
- ❖ **A SAFE ENVIRONMENT** is important. Keep the area free of dust, dirt and other debris in the immediate vicinity of your machine.
- ❖ **BE ALERT! DO NOT** use prescription or other drugs that may affect your ability or judgment to safely use your machine.
- ❖ **DISCONNECT** the power source when changing drill bits, hollow chisels, router bits, shaper heads, blades, knives or making other adjustments or repairs.
- ❖ **NEVER** leave a tool unattended while it is in operation.
- ❖ **NEVER** reach over the table when the tool is in operation.
- ❖ **ALWAYS** keep blades, knives and bits sharpened and properly aligned.
- ❖ **ALL OPERATIONS MUST BE** performed with the guards in place to ensure safety.
- ❖ **ALWAYS** use push sticks and feather boards to safely feed your work through the machine and clamp the work-piece (when necessary) to prevent the work-piece from any unexpected movement.
- ❖ **ALWAYS** make sure that any tools used for adjustments are removed before operating the machine.
- ❖ **ALWAYS** keep the bystanders safely away while the machine is in operation.
- ❖ **NEVER** attempt to remove jammed cutoff pieces until the saw blade has come to a full stop.

CX412 – 2HP DUST CYCLONE SPECIFIC SAFETY INSTRUCTIONS

- ❖ **READ** and follow all the instructions and safety precautions in the user manual before setup or use.
- ❖ **THIS DUST CYCLONE** is designed for wood dust only. It is not to be used for other materials such as liquids or metal scraps but not limited to, nails and fillings. It is also not intended to collect large pieces that will not pass through the impeller
- ❖ **DO NOT** place your hands or tools near the open inlet while the dust cyclone is running. Turn the machine OFF to repair, service, or inspection (such as clogging).
- ❖ **DO NOT** operate the dust cyclone in areas exposed to ignition sources such as pilot lights or open flame etc...Suspended particulates may be a source of explosion.
- ❖ **ALWAYS** wear personal protective devices such as masks, respirators, and safety glasses when emptying dust from the collection bags. Proper disposal method should be followed.
- ❖ **MAKE SURE** the collection bags and the canisters are securely fastened to the collector body before every use.
- ❖ **METALLIC OBJECTS** that strike the impeller may produce a spark which can smolder in wood dust for a long period of time before fire or flame is detected. While operating the dust cyclone, if metal contacts metal, immediately turn the switch to the OFF position and unplug the cord from the outlet, allowing the impeller to come to a complete stop. Empty the dust into an approved air tight metal container and remove all metal objects from dust prior to resuming operation.
- ❖ **CERTAIN WOODS** maybe an irritant or cause an allergic reaction. It is good to know what type of wood dust you will be exposed to, in case there is an allergic reaction. Always wear approved personal safety equipments.
- ❖ **ALWAYS** turn OFF the dust cyclone and disconnect power, allowing the impeller to come to a complete stop before servicing the dust cyclone or connected system.
- ❖ **MAKE SURE** you have read and understood all the safety instructions in the manual and you are familiar with your dust cyclone, before operating it. If you fail to do so, serious injury could occur.

WARNING!

The safety instructions given above can not be complete because the environment in every shop is different. Always consider safety first as it applies to your individual working conditions.



CX412 – 2HP DUST CYCLONE

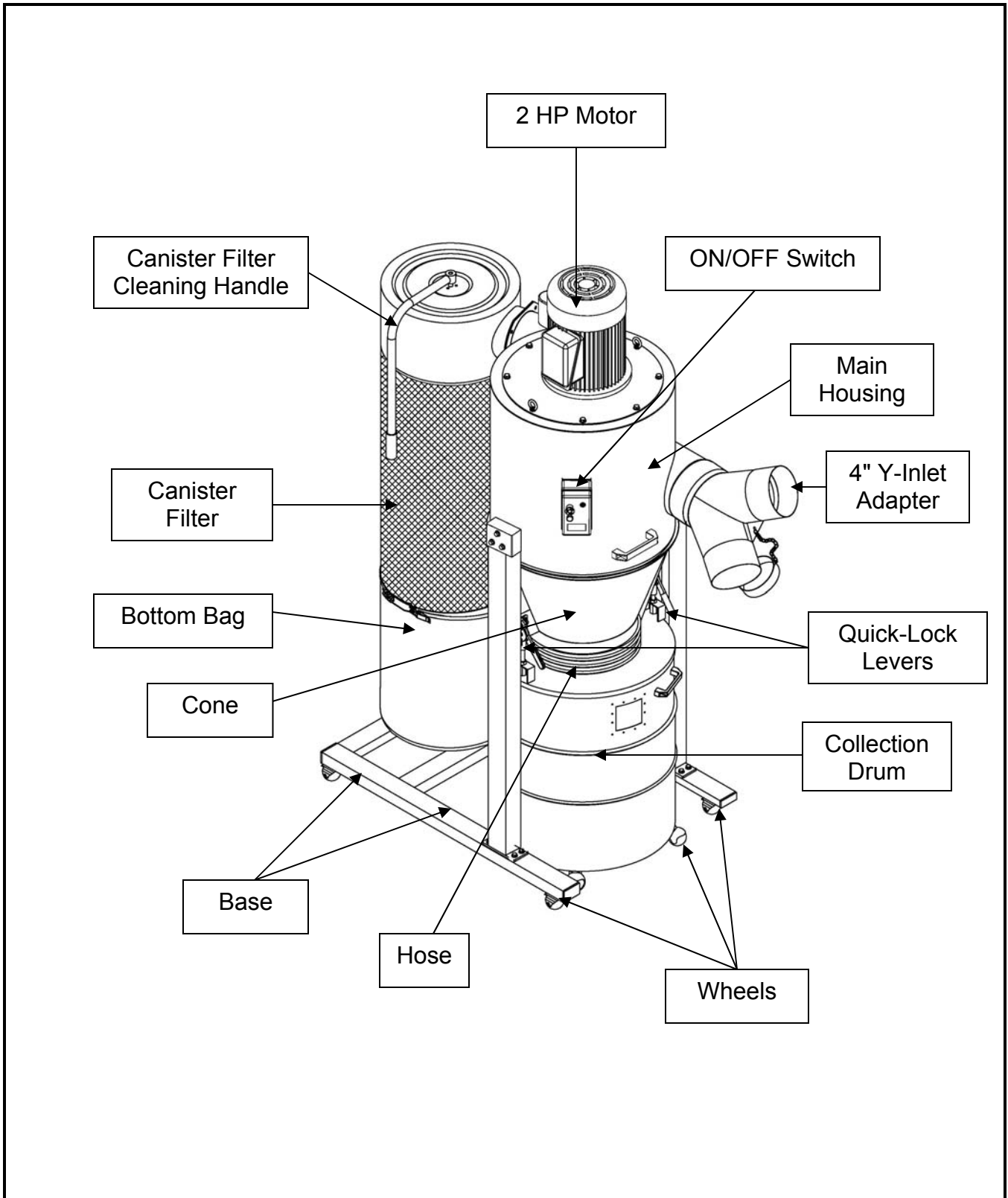
FEATURES

MODEL CX412 - 2HP DUST CYCLONE

As part of the growing line of Craftex woodworking equipment, we are proud to offer the CX412 a 2HP Dust Cyclone. By following the instructions and procedures laid out in this user manual, you will receive years of excellent service and satisfaction. The CX412 is a professional tool and like all power tools, proper care and safety procedures should be adhered to.

- ❖ Motor 2 HP, 220-Volts, 60-Hz, Single Phase
- ❖ Amp 9 Amps
- ❖ Motor Speed 3450 RPM
- ❖ Suction Capacity 1450 CFM
- ❖ Static Pressure 10.5" H2O
- ❖ Impeller Size 14.5"
- ❖ Switch ON/OFF Magnetic Switch
- ❖ Inlet Size 6" (with 4" Y-Inlet)
- ❖ Foot Print 37" x 26"
- ❖ N.Weight 82.3 Kg.
- ❖ G.Weight 94 Kg.
- ❖ Packaging Size 45" x 28.5" x 37"
- ❖ Made In Taiwan
- ❖ Warranty 3 Years

CX412 - 2HP DUST CYCLONE PHYSICAL FEATURES



UNPACKING

The machine is properly packaged and shipped completely in carton for safe transportation. When unpacking, carefully inspect the carton and ensure that nothing has been damaged during transit.

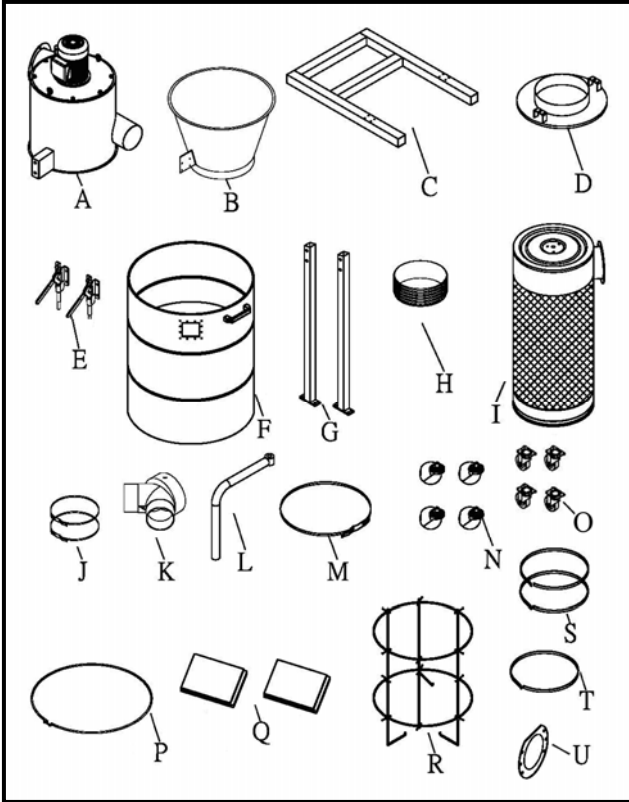


Figure-1 Inventory

List of Contents

Qty

A. Main Housing	1
B. Cone.....	1
C. Base	1
D. Drum Lid.....	1
E. Quick Lever	2
F. Drum	1
G. Stand.....	2
H. Hose.....	1
I. Canister Filter.....	1
J. Hose Clamp	2
K. Inlet Adapter	1
L. Handle.....	1

M. Bag Clamp	1
N. Drum Wheel.....	4
O. Base Wheel	4
P. Cone Clamp.....	1
Q. PE Bag.....	2
R. Inner Frame	1
S. Foam.....	2
T. Foam.....	1
U. Gasket	1

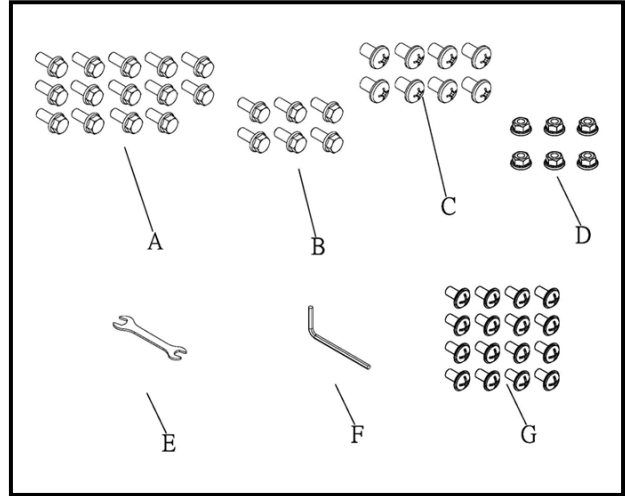


Figure-2 Hardware

List of Contents

Qty

A. Flange Bolt Screw 5/16" x 3/4".....	14
B. Flange Bolt Screw 5/16" x 1/2".....	6
C. Philips Head Screw M5x8	8
D. Nut 5/16".....	6
E. Open Wrench 10 x 12mm.....	1
F. Allen Wrench 4mm.....	1
G. Philips Head Screw 3/16" x 3/8".....	16

NOTE!

While doing inventory, if you can not find any part, check if the part is already installed on the machine. Some of the parts come assembled with the machine because of shipping purposes.

PROPER GROUNDING

Grounding provides a path of least resistance for electric current to reduce the risk of electric shock.

CX412 is equipped with a 220-volts, single phase motor which features a 3-conductor cord and a 3-prong grounded plug to fit a grounded type receptacle. Do not remove the grounding prong to fit it into a 2-pronged outlet. Always check with a qualified electrician if you are in doubt.

Make sure the cord is plugged into a properly installed and grounded power outlet.

To prevent electrical hazards, have a qualified electrician ensure that the line is properly wired.

This machine is for use on a normal 220-volt circuit and is factory-equipped with a specific electric cord and plug to permit connection to a proper electric circuit. Make sure that the machine is connected to an outlet having the same configuration as the plug.

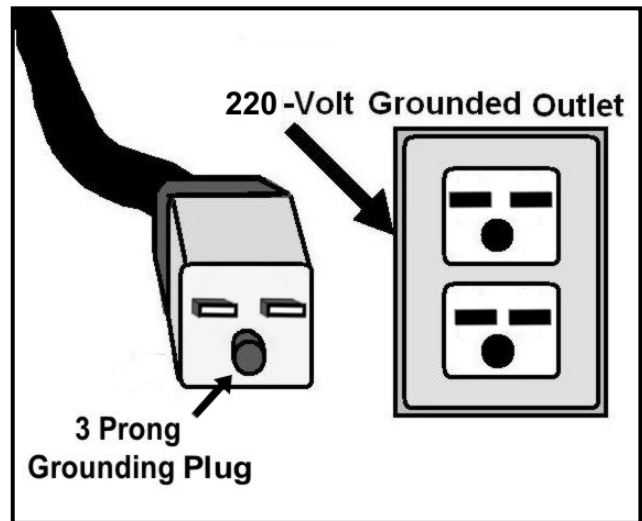


Figure-3 220-Volts outlet for CX412

It is strongly recommended not to use extension cords with your CX412. Always try to position your machine close to the power source so that you do not need to use extension cords.

If you really find it necessary to use an extension cord, make sure the extension cord does not exceed 50-feet in length and the cord is 14-gauge to prevent motor damage.

WARNING!

Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.

ASSEMBLY

Attach the base wheels (#24) to the base (#25) using the 5/16" x 1/2" flange bolt screws (#17). See figure-1.

Secure the stand (#22) onto the base (#25) using the 1/4" x 1/2" flange bolt screw (#8).

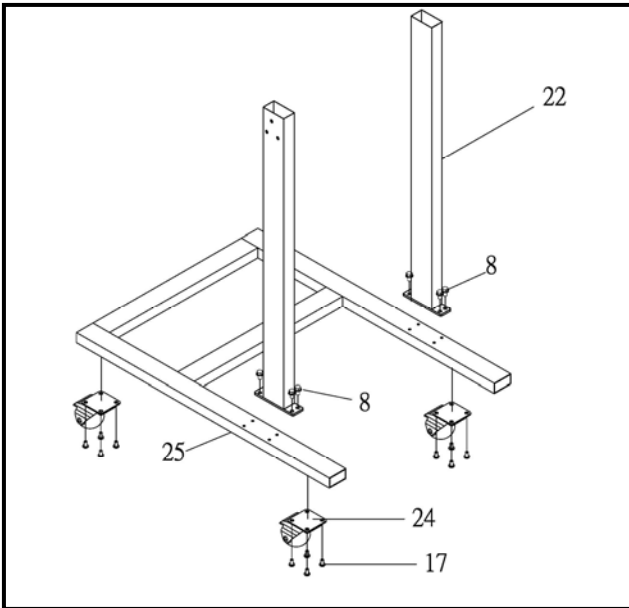


Figure-4 Installing the stand and wheels

Tighten the wheels (#47) under the drum (#48) into the thread nuts as shown in figure-5.

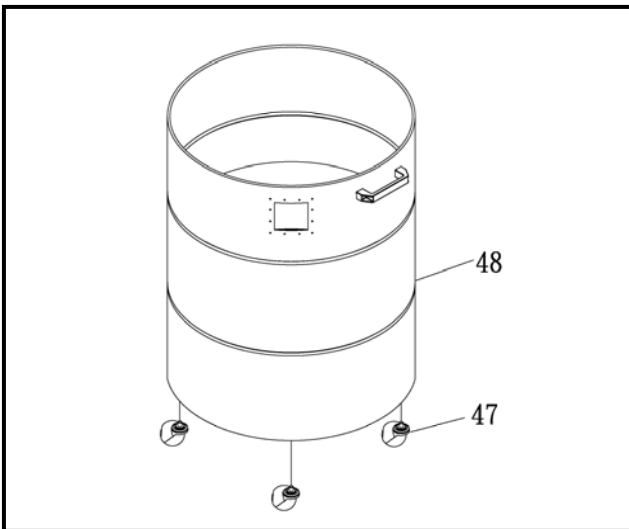


Figure-5 Installing wheels under the drum

Get the help of a friend or use a fork truck and lift up the main housing (#16) and place it on the stand (#22). Using the flange bolt screw 5/16" x 1/2" (#21) secure the main housing on to the stand. See figure-6.

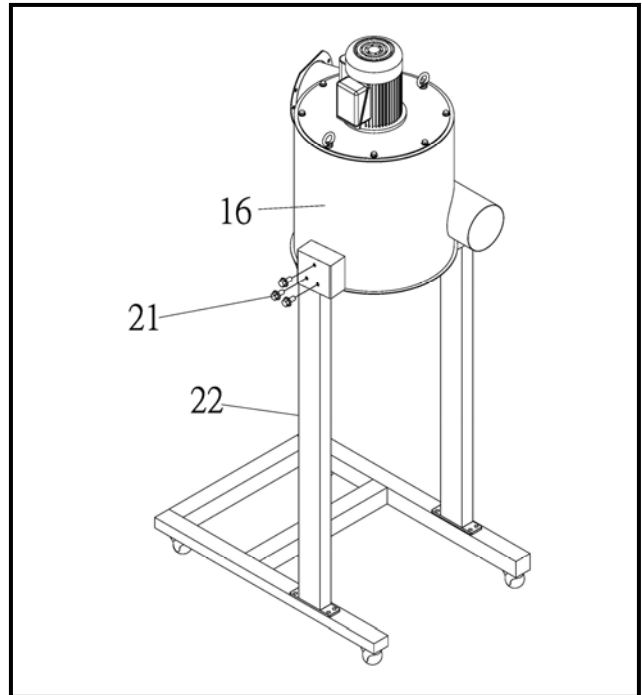


Figure-6 Securing the main housing to the stand

Attach the cone (#33) under the main housing and secure it using the cone clamp (#31) and hex screw (#32). See figure-7.

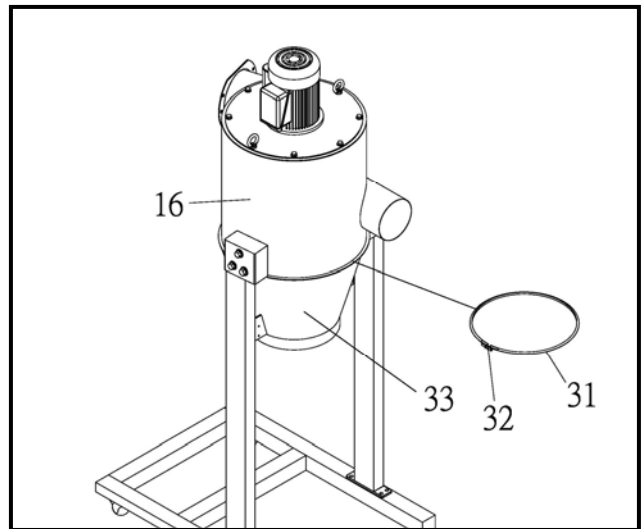


Figure-7 Attaching the cone to the housing

Attach the handle (#59) to the canister filter (#55) and secure it with the set screw 5/16" x 3/4" (#58) and nut 5/16" (#57) as shown in figure-8.

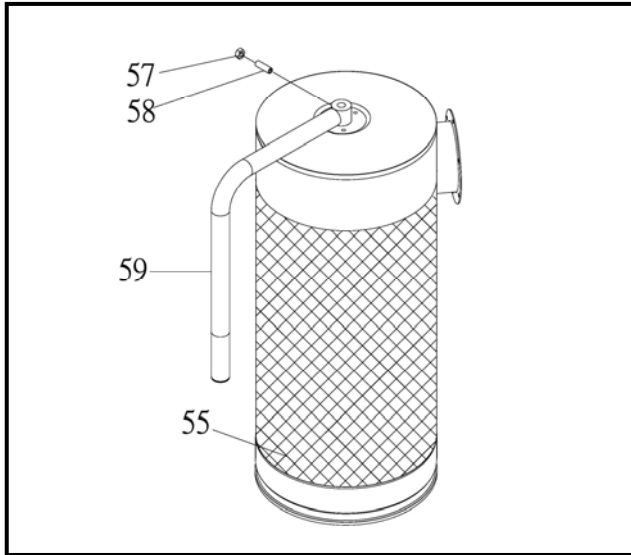


Figure-8 Attaching the handle to the canister

Now, attach the canister (#55) to the main housing (#16) and tighten with the gasket (#64) between them as shown in figure-9. Secure it using flange bolt (#8) and nut (#63).

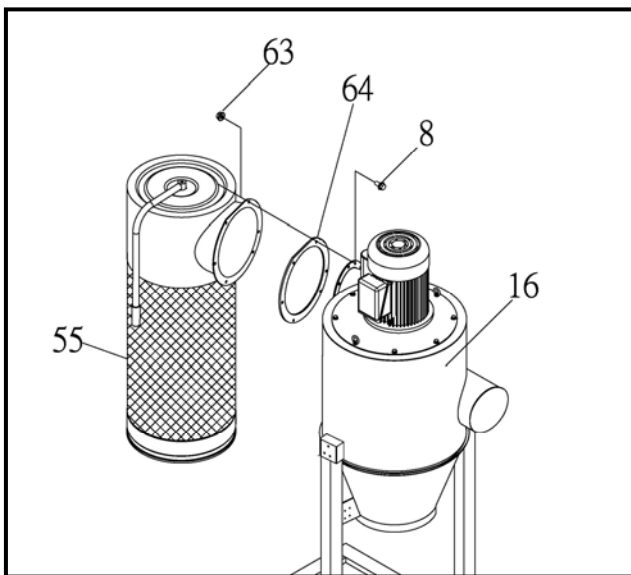


Figure-9 Installing the canister filter

Attach the Y-inlet adapter (#18) to the main housing (#16) and secure it with Philips head screw 3/18" x 3/8" (#17). See figure-10.

Paste the foam (#54) as a circle around the canister filter (#55) and tighten the PE bag (#52) with bag clamp (#53) as shown in figure-10.

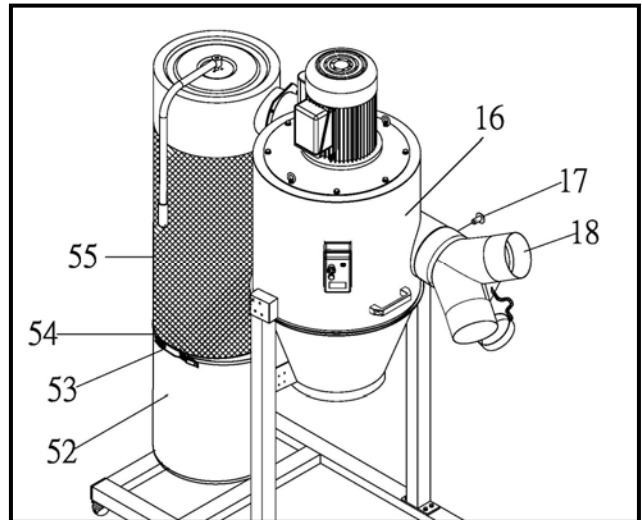


Figure-10 Installing the inlet adapter and PE bag

Place the drum lid (#40) on the drum and position the drum (#48) under the main housing. Attach one end of the hose (#39) to the cone (#33) and the other end onto the drum lid (#40). Use the hose clamps (#38) and secure it on both ends. See figure-11.

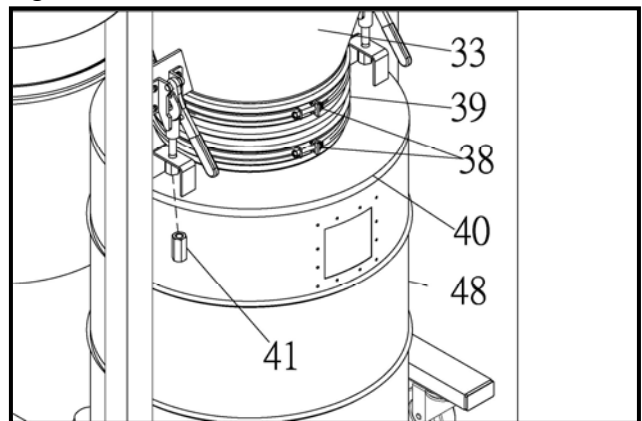


Figure-11 Installing the hose

Place the PE bag (#72) into the drum (#48) and place the inner frame inside the PE bag in order to press the bag down.

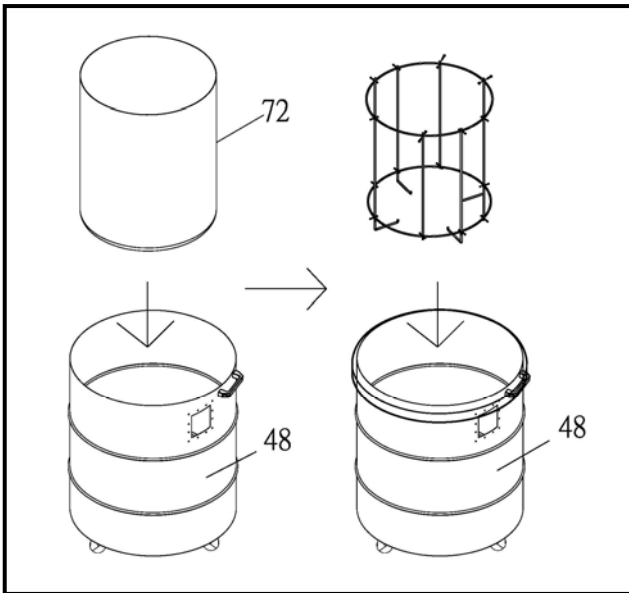


Figure-12 Placing the bag inside the drum with the inner frame

Pull down the quick lever and thread the nut (#41) onto the quick lever thread and tighten it. This will secure the drum lid to the cone.

CYCLONE BAG FRAME ASSEMBLY

Attach each long side support rod (#2) and short side support rod (#5) to the ring (#1) using bolts (#3) and nuts (#4) provided.

Now position the second ring (#1) around the long side and short side support rods and secure it using bolts (#3) and nuts (#4) provided. See figure-13.

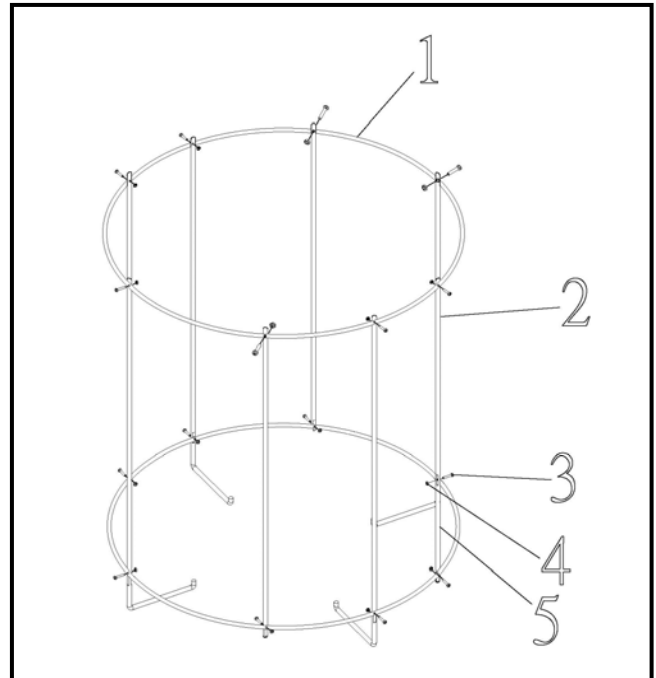


Figure-13 Assembling the cyclone bag frame

ON/OFF SWITCH

The CX412 features a magnetic ON/OFF switch with a large Emergency Stop/Reset button located on the left side of the inlet.

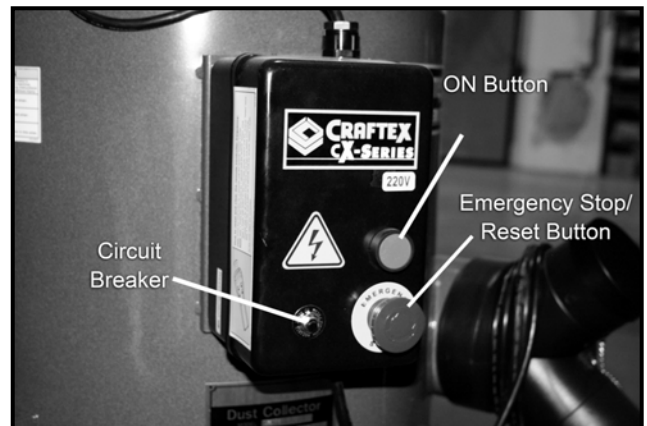


Figure-14 ON/OFF Switch with removable key

REMOTE CONTROLLER

The CX411 features a remote controller (#50) that allows you decrease or increase the amount of time the impeller runs before automatically shutting off.

Press the "ON Button" to turn on the machine and then press the "Increase Button" to increase the amount of time. Each time you press the "Increase Button" the amount of time is increased by two hours up to a maximum of 8 hours cycle and the light for the selected time illuminates on the remote controller. Decrease the amount of time by pressing the "Decrease Button". See figure-15.



Figure-15 Remote controller for CX411

TEST RUN

Once you have assembled your machine completely, it is now time for a test run to make sure that the machine works properly and is ready for operation.

WARNING!

Before turning on the machine, make sure you have read and understood the instructions given in the manual and you are familiar with the functions and safety features on this machine. Failure to do so could result in serious injury to the operator or damage to the machine.

All the tools and objects used for assembling the machine should be removed and cleared away during the test run.

Plug the cord to the power outlet and turn the machine ON. Test the ON, OFF and Emergency Stop buttons make sure they are working properly.

During the test run if there is any unusual noise coming from the machine or the machine vibrates excessively, shut off the machine immediately and disconnect the cord from the power source. Check all the parts you have assembled, once again and investigate to find out the problem.

MAINTENANCE

During the life of your machine, you will need to practice some regular maintenance to keep your machine in peak performance condition.

WARNING!

Make sure the machine is turned off and the cord is disconnected from the power source before servicing and removing/replacing any components on the machine.

Check your machine daily for:

- ✓ Loose mounting bolts.
- ✓ Damaged cord.
- ✓ Worn switch.
- ✓ Full collection bag / drum.
- ✓ Any other unsafe condition.

EMPTYING THE COLLECTION DRUM

You should empty the collection drum when it is approximately 3/4 full. If the drum is full and you continue to use the Cyclone, you may have larger dust particles enter the filter and damage the canister.

WARNING!

Always wear proper dust mask or respirator while emptying the collection bag. The small dust particles flying into the air while emptying the collection bag can be easily inhaled and is extremely unhealthy, causing serious long term respiratory problems.

CLEANING THE CANISTER

The canister (#55) features a cleaning handle (#59) which is used to clean the canister filter. To clean the canister filter simply move the handle back and forth and the trapped dust particles will fall into the collection bag.

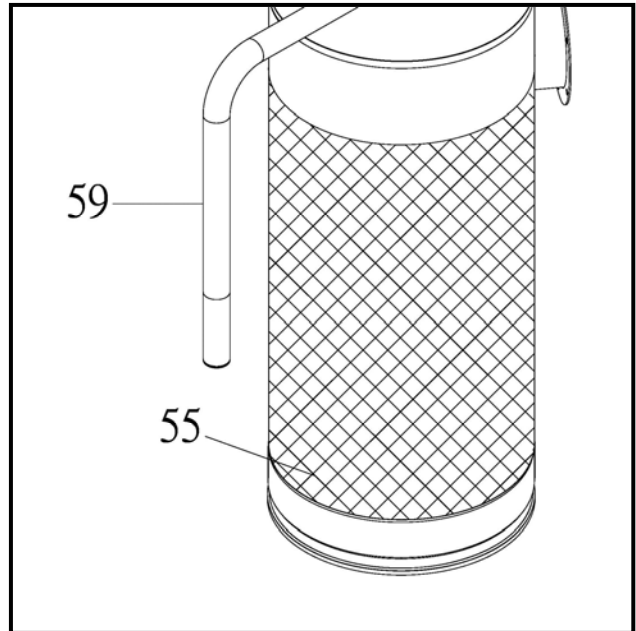
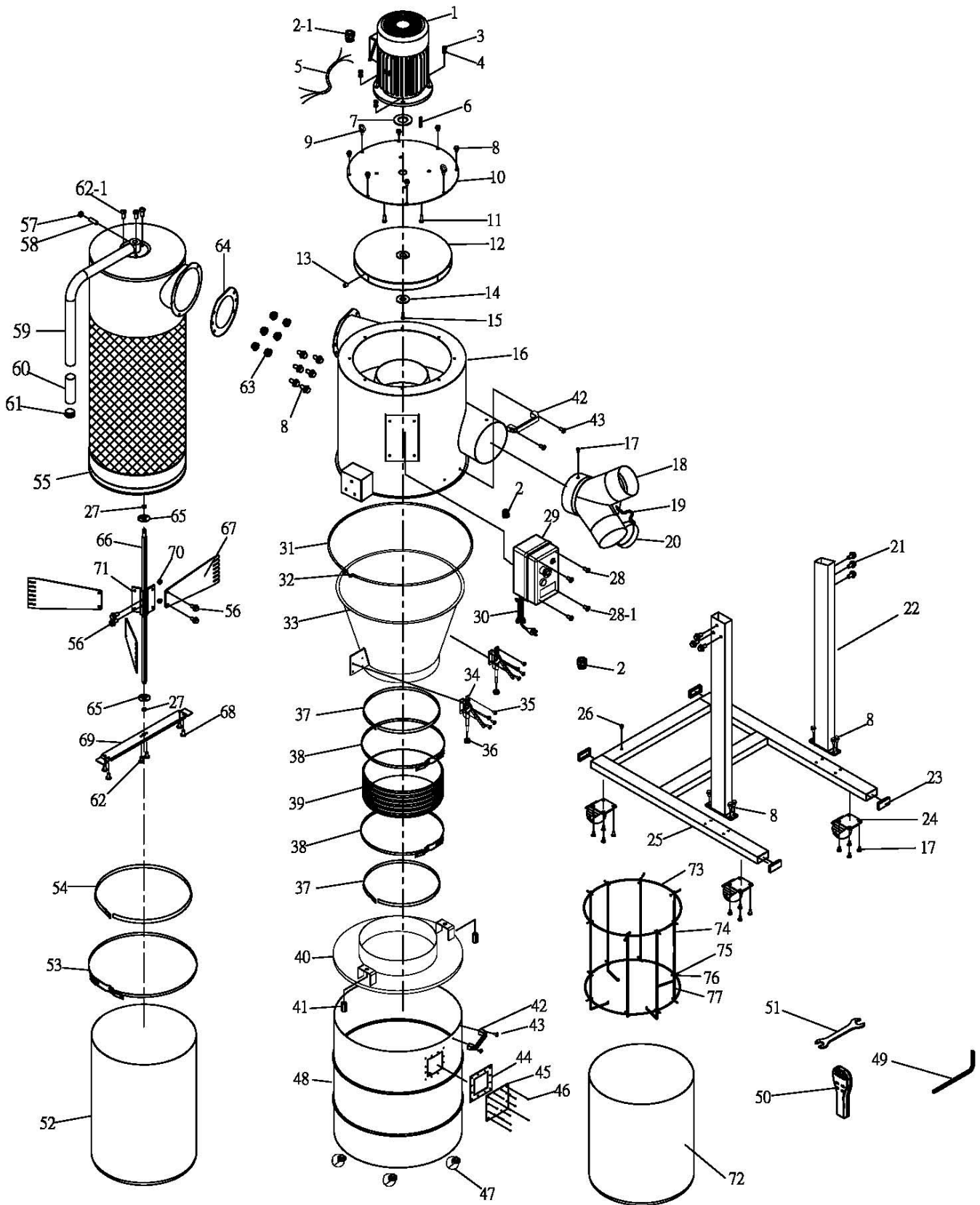


Figure-16 Cleaning the canister

CX412 PARTS BREAKDOWN



CX412 PARTS LIST

NO.	DESCRIPTION	SPECIFICATION	Q'TY
1	Motor	2HP	1
2	Bushing	MP-20	2
2-1	Bushing	2.0	1
3	Nut	5/16"	4
4	Spring Washer	5/16"	4
5	Motor Cord		1
6	Key	7x7x25	1
7	Motor Packing		1
8	Flange Bolt Screw	5/16"x3/4"	20
9	Hanger	5/16"	2
10	Motor Plate		1
11	Hex. Bolt	5/16"x1"	4
12	Impeller	14.5"	1
13	Set Screw	3/8"x3/4"	1
14	Impeller Washer		1
15	Cap Screw	M6x20	1
16	Main Housing		1
17	Phillips Head Screw	3/16"x3/8"	17
18	Inlet Adaptor	6"x4"	1
19	Chain		1
20	Cap	4"	1
21	Flange Bolt Screw	5/16"x 1/2"	6
22	Stand		2
23	Plug	30x60	4
24	Base Wheel	2"	4
25	Base		1
26	Phillips Head Screw	3/16"x1/4"	1
27	Bearing	1206	2
28	Phillips Head Screw	3/16"x3/8"	2
28-1	Phillips Head Screw	3/16"x3/8"	2
29	Magnetic Switch		1
30	Power Cord		1
31	Cone Clamp		1
32	Hex Head Screw	1/4"x2-1/2"	1
33	Cone		1
34	Quick Handle		2
35	Phillips Head Screw	M5x8	8
36	Nut	3/8"	2

37	Foam		2
38	Hose Clamp	12-1/2"	2
39	Hose	12"	1
40	Drum Lid		1
41	Long Nut	3/8"	2
42	Drum Handle		2
43	Phillips Head Screw	1/4"x1/2"	4
44	Packing		1
45	Acrylic Board		1
46	Rivet	4-2	12
47	Drum Wheel	5/16"x2"	4
48	Drum		1
49	Allen Wrench	4mm	1
50	Remote Control Bar		1
51	Open Wrench	10x12	1
52	PE Bag	Φ370x450	1
53	Bag Clamp	Φ370	1
54	Foam		1
55	Canister Filter	370x600	1
56	Flange Bolts	M5x12	8
57	Nut	5/16"	1
58	Set Screw	5/16"x3/4"	1
59	Handle		1
60	Cap	3/4"	1
61	Sponge	7/8"	1
62	Button Head Screw	M5x6	3
62-1	Button Head Screw	M5x10	3
63	Nut	5/16"	6
64	Gasket		1
65	Bearing Support		2
66	Spindle		1
67	Flapper		3
68	Phillips Head Screw	M5x8	4
69	Bottom Fixing Support		1
70	Nut	M5	6
71	Plate Fixing Block		1
72	PE Bag		1
73	Loop		2
74	Barrel Fixing Stick(long)		4
75	Nut	M3	16
76	Phillips Head Screw	M3x12	16
77	Barrel Fixing Stick(short)		4



WARRANTY

CRAFTEX 3 YEARS LIMITED WARRANTY

Craftex warrants every product to be free from defects in materials and agrees to correct such defects where applicable. This warranty covers **three years** for parts and 90 days for labour (unless specified otherwise), to the original purchaser from the date of purchase but does not apply to malfunctions arising directly or indirectly from misuse, abuse, improper installation or assembly, negligence, accidents, repairs or alterations or lack of maintenance.

Proof of purchase is necessary.

All warranty claims are subject to inspection of such products or part thereof and Craftex reserves the right to inspect any returned item before a refund or replacement may be issued.

This warranty shall not apply to consumable products such as blades, bits, belts, cutters, chisels, punches etceteras.

Craftex shall in no event be liable for injuries, accidental or otherwise, death to persons or damage to property or for incidental contingent, special or consequential damages arising from the use of our products.

RETURNS, REPAIRS AND REPLACEMENTS

To return, repair, or replace a Craftex product, you must visit the appropriate Busy Bee Tools showroom or call 1-800-461-BUSY. Craftex is a brand of equipment that is exclusive to Busy Bee Tools.

For replacement parts directly from Busy Bee Tools, for this machine, please call 1-800-461-BUSY (2879), and have your credit card and part number handy.

- All returned merchandise will be subject to a minimum charge of 15% for re-stocking and handling with the following qualifications.
- Returns must be pre-authorized by us in writing.
- We do not accept *collect* shipments.
- Items returned for warranty purposes must be insured and shipped pre-paid to the nearest warehouse
- Returns must be accompanied with a copy of your original invoice as proof of purchase. Returns must be in an un-used condition and shipped in their original packaging a letter explaining your reason for the return. Incurred shipping and handling charges are not refundable.
- Busy Bee will repair or replace the item at our discretion and subject to our inspection.
- Repaired or replaced items will be returned to you pre-paid by our choice of carriers.
- Busy Bee reserves the right to refuse reimbursement or repairs or replacement if a third party without our prior authorization has carried out repairs to the item.
- Repairs made by Busy Bee are warranted for 30 days on parts and labour.
- Any unforeseen repair charges will be reported to you for acceptance prior to making the repairs.
- The Busy Bee Parts & Service Departments are fully equipped to do repairs on all products purchased from us with the exception of some products that require the return to their authorized repair depots. A Busy Bee representative will provide you with the necessary information to have this done.

For faster service it is advisable to contact the nearest Busy Bee location for parts availability prior to bringing your product in for repairs.