

PLOOG ENGINEERING CO., INC.

Manufacturers of Testing Equipment

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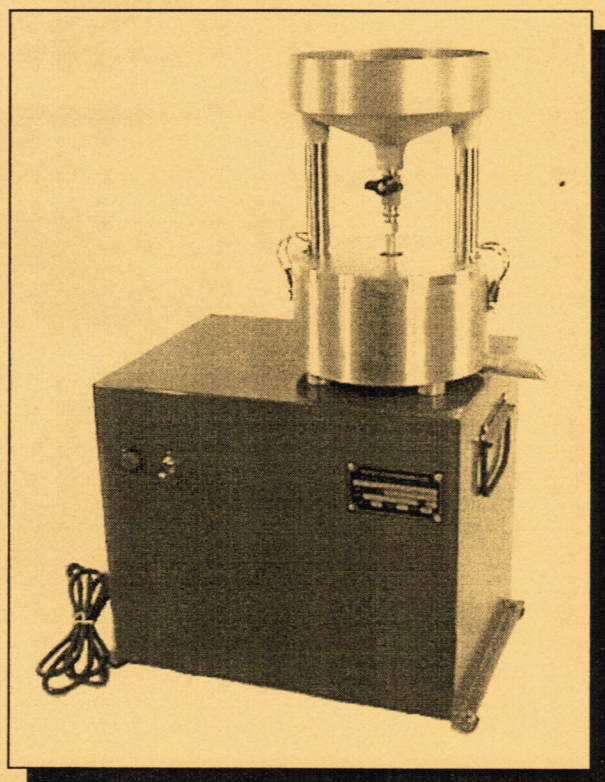
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814 N. Indiana Ave.

Crown Point, In 46307

U.S.A.



Filterless Centrifuge

ASTM D1856: AASHTO T164, T170

The American made Continuous Flow Filterless Centrifuge is effective for recovery of mineral filler fines from bitumen-laden nonflammable solvents from asphalt mix extraction tests.

Solvent suspension is fed through a top funnel through a regulating valve into a special aluminum beaker spinning at 11,000 rpm. At the high rpm the liquid moves up the beaker wall and out the overflow tube while the solids remain in the beaker due to the centrifugal force. Continuous feeding of the suspension is possible until the capacity of the beaker is reached. The unit has controlled quiet acceleration and top speed is reached quickly. Dynamic braking controls the stopping of the beaker.

The unit has a steel casing and bearing housing and aluminum sieve holder, bowl and beakers.

Two beakers are included

Ordering Information

M280 115 volts 60 Hz

M280.5 220 volts 50/60 Hz

**Sold
By:**

INSTRUCTION FOR M280 (115 VOLT)

MACHINE SET UP:

SET MACHINE ON A FIRM TABLE, THE MACHINE DOES NOT HAVE TO BE BOLTED DOWN.
INSTALL BOWL COVER AND SIEVE RETAINER ASSEMBLY.
A LITTLE VASELINE MAKES THE "O" RING WORK BETTER
PLUG POWER CORD IN TO A 110/120 VOLT OUTLET.

THE FEED TUBE (ref. # 48) HAS A FLOW RESTRICTOR BELOW THE VALVE.
THIS REGULATES THE FLOW TO GET A BETTER EXTRACTION.

TO OPERATE MACHINE:

PRESS THE GREEN POWER BUTTON,
THIS POWERS THE ELECTRONICS UP.
FLIP THE TOGGLE SWITCH TO START MOTOR.
ACCELERATION & DECELERATION IS ELECTRONICALLY CONTROLLED.
IT TAKES ABOUT ONE MINUTE TO GET UP TO 11000 RPM. (TOP SPEED)
BY TURNING MOTOR OFF WITH TOGGLE SWITCH ELECTRONIC BRAKING TAKES OVER.

ELECTRONIC BRAKING IS DISABLED IF THE GREEN POWER BUTTON
IS PRESSED, MACHINE WILL COAST TO STOP.

ROUTINE MAINTENANCE.

The most important thing is to keep the machine clean.
Wipe spinner-cup, beaker and "O" rings clean.
A little vaseline on "O" rings will help a lot.
If machine gets too noisy over time the bearings need to be replaced .

To replace Bearings:

Remove sieve holder , cover, beaker and bottom guard.
Loosen drive motor belt and remove. Also remove 4 bolts holding bearing assembly (ref.#26).
Lift the spinner-cup and bearing assembly out of machine as one unit.
Hold bearing assembly in vise to remove clamp-nut, (ref#23) hold spinner-cup with your hands and
remove clamp-nut.
Bump the shaft end with something soft and carefully slide the shaft out of housing.
Remove bearings.
Install new bearings, assemble following the same steps backwards.

INSTRUCTION FOR M280.5 (220 VOLT)

MACHINE SET UP:

SET MACHINE ON A FIRM TABLE, DOES NOT HAVE TO BE BOLTED DOWN.
INSTALL BOWL COVER AND SIEVE RETAINER ASSEMBLY.
A LITTLE VASELINE MAKES THE "O" RINGS WORK BETTER
CONNECT POWER CORD TO A 220 VOLT SUPPLY.
CONNECT GREEN TO GROUND.

THE FEED TUBE (ref. #48) HAS A FLOWRESTRICTOR BELOW THE VALVE.
THIS REGULATES THE FLOW TO GET A BETTER EXTRACTION.

TO OPERATE MACHINE:

PRESS THE GREEN POWER BUTTON,
THIS POWERS THE ELECTRONICS UP.
FLIP THE TOGGLE SWITCH TO START MOTOR.
ACCELERATION & DECELERATION IS ELECTRONICALLY CONTROLLED.
IT TAKES ABOUT ONE MINUTE TO GET UP TO 11000 RPM. (TOP SPEED)
BY TURNING MOTOR OFF WITH TOGGLE SWITCH , ELECTRONIC BRAKING TAKES OVER.

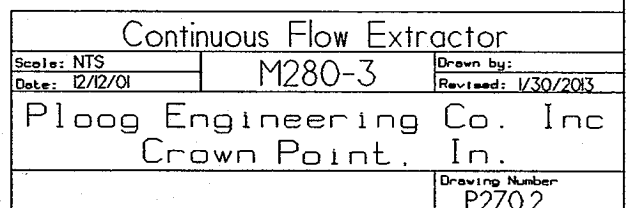
ELECTRONIC BRAKING IS DISABLED IF THE GREEN POWER BUTTON
IS PRESSED, MACHINE WILL COAST TO STOP.

ROUTINE MAINTENANCE.

The most important thing is to keep the machine clean.
Wipe spinner-cup, beaker and "O" rings clean.
A little vaseline on "O" rings will help a lot.
If the machine gets too noisy over time the bearings need to be replaced.

TO REPLACE BEARINGS:

Remove sieve holder, cover, beaker & bottom guard.
Loosen drive motor belt and remove. Also remove 4 bolts holding the bearing assembly (ref. #26).
Lift the spinner-cup out thru the top of the machine as one unit.
Hold bearing assembly in vise to remove retaining nut (ref. #23) by holding the spinner-cup with your hands and remove nut.
Bump the shaft end with a soft hammer and carefully slide the shaft out of housing.
Remove bearings.
Install new bearings, re-assemble following the same steps backwards.



PARTS LIST FOR M280,M280.5 SERIES 3
STARTS WITH MACHINE NO. M280-3xxxx 241

REF.	PART NO.	DESCRIPTION	NO.PCS.
1	1087P01	Steel enclosure	1
2	1087P02	Handles	2
3	1087P03	Handle Screws	8
4	1087P04	Handle Screw Nuts	8
8	1087P08	Sieve retainer	1
9	1087P09	Sieve retainer post	2
10	1087P10	Set screw	2
11	1087P11	Bowl Cover	1
12	1087P12	Cover Clamps	2
13	1087P13	Cover Clamp Screws	4
14	1087P14	Lower Bowl w/ splash ring	1
15	1087P15	Spout	1
16	1087P16	Spinner Cup	1
	1087P16A	Compl. Cup & Brg. Assy'.	1 see page2
17	1087P17	Bearing Retainer	1
18	1087P18	Top Bearing	1
19	1087P19	Retaining Rings	2
20	1087P20	Lower Bearing	1
20.1	1087P20.1	Pulley Spacer	1
21	1087P21	Lower Pulley	1
22	1087P22	Bearing load Washer	1
23	1087P23	Esna retaining Nut	1
24	1087P24	Vibration Damper	1
24.1	1087P24.1	Spacer {Plate	1
25.1	1087P25.1	Step Bushing Bushings	4
26	1087P26	Shoulder Bolts	4
27	1087P27	Cap Screws	4
28	1087P28	Motor	1
29	1087P29	Drive Pulley Assembly	1
30	1087P30	Drive Belt	1
32	1087P32	Motor Bolts Botton Hd	4
33	1087P33	Motor Mount Bar	2
34	1087P34	Cord to Motor	1
35	1087P35	Power Cord	1
36	1087P36	Cord Grip	1
37	1087P37	Power Button	1
38	1087P38	Toggle Swich, on/off	1
39	1087P39.1	Electronic Motor Control 120V	1
39	1087P39.2	Electronic Motor Control 220V	1
40	1087P40	Screws for above	4
41	1087P41	Nuts for above	4
42	1087P42	Beaker	1
43	1087P43	Decal	1
44	1087P44	Valve	1
45	1087P45	Compr.fitting 1/4NPTx3/8	1
48	1087P48	Feed Tube Assembly	1
49	1087P49	O-Ring - Cover	1
50	1087P50	O-Ring - Cup	1

REF. #	PART #	DESCRIPTION	NO.PCS
51	1087P51	Washer	1
52	1087P52	Lock-Nut	1
53	1087P53	FUSE HOLDER	1
54	1087P54	Fuse,110V 6.25A. MDL 6-1/4	1
54.1	1087P54.1	Fuse,220V 5A MDL5	1
58	1087P58	Conrol Cord	1
	1087P16A	Complete Spinner-Cup Ass'y This is a complete assembled unit Consisting of the following parts	
16	1087P16	Spinner Cup	1
17	1087P17	Bearing retainer	1
18	1087P18	Top Bearing	1
19	1087P19	Retaining Rings	2
20	1087P20	Lower Bearing	1
20.1	1087P20.1	Pulley Spacer	1
21	1087P21	Lower Pulley	1
22	1087P22	Bearing Load Washer	1
23	1087P23	Esna Retaining Nut	1

**ALLWAYS GIVE COMPLETE MODEL & SER. NO.
WHEN ORDERING PARTS**