

SASE COMPANY

DIAMOND GRINDER
780

OPERATING AND PARTS MANUAL

SASE Company, Inc.
1-800-522-2606



The Surface Preparation Equipment Specialists

Sales • Rentals • Service • Leasing

1-800-522-2606

www.sasecompany.com

E-mail: sales@sasecompany.com

Thank you and congratulations on your decision to purchase *SASE Surface Preparation Equipment!* We are confident that you will be satisfied with your purchase and that you will receive many years of quality use and production.

Our goal is nothing short of excellence in providing the finest surface preparation equipment and service that can be found on the market today. This pursuit of excellence is founded upon our 15 years in selling and servicing surface preparation equipment. The SASE Company staff is dedicated to providing exceptional service and is the cornerstone by which the SASE Company superior product line is built.

When you need timely service, support or replacement parts, SASE Company is there with regional warehouses, same day shipping of parts and machines or delivery right to your jobsite. Sales and service staff are available from 5:30 AM to 5:00 PM (PST) for jobsite consulting, trouble shooting or for shipping orders.

On behalf of the entire SASE Company Team, thank you for your valued business and we look forward to servicing your surface preparation needs.

Sincerely,
SASE Company, Inc.

A handwritten signature in black ink, appearing to read "J. Weder". The signature is fluid and cursive, with a large initial "J" and a long horizontal stroke.

Jim Weder
President

SASE Company Surface Preparation Equipment. . . . time tested, job site proven.

NATIONWIDE LOCATIONS

Washington • California • Illinois • Georgia • Virginia
Florida • Ohio • Texas • New England • Oklahoma • North Carolina

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TECHNICAL SPECIFICATIONS

Diamatic 780 220 Volt

Weight	1,100 LBS
Power Requirement	220 Volt Three Phase 60 Amp
Motor Output	20 Horsepower
Motor RPM	1500
Foot Pounds of Torque	96
Grinding Width	30.5 Inches
Grinding Pressure	935 Pounds
Disc Diameter	9 Inch

Diamatic 780 440 Volt

Weight	1,100 LBS
Power Requirement	440 Volt Three Phase 30 Amp
Motor Output	23 Horsepower
Motor RPM	1500
Foot Pounds of Torque	108
Grinding Width	30.5 Inches
Grinding Pressure	935 Pounds
Disc Diameter	9 Inch

SAFETY INSTRUCTIONS

- ◆ Check that you are using the recommended power supply and have made the correct connections.
- ◆ To avoid injury and damage to yourself and the machine, only qualified electricians should make and check any electrical connections to the machine.
- ◆ Before inserting the plug into the power supply socket, inspect the plug for damage. If damage is found, have the defective item replaced by a qualified electrician immediately.
- ◆ Make sure the machine is switched off before inserting the power plug into the socket.
- ◆ Before operating the machine make sure that the instruction manual has been read thoroughly by the operator.
- ◆ Keep the machine and other tools away and out of reach of children.
- ◆ When necessary: wear gloves, eye protection, and hearing protection during grinding operations.
- ◆ Use only genuine accessories.
- ◆ Use the machine only for the purposes which have been designed for.
- ◆ Make sure that the operator is qualified and capable for the operating / purpose for which the machine is intended to be used.
- ◆ Don't put anything other than water in the water tank. Always be careful that no water will come into contact with the motor or other electrical parts. Water can cause injury to yourself and the machine if it makes contact with any electrical part.
- ◆ Check the floor condition / lay out prior to starting the machine. Protruding obstacles such as screws, bolts, etc. must be removed as they can cause damage to the grinding disc and the machine.
- ◆ No responsibility can be taken by the manufacturer or any distributors for any other action which is not described in this safety instructions or in the instruction manual.

SAFETY INSTRUCTIONS

WARNING!

- ◆ **KEEP THE MACHINE DRY!**
- ◆ **DON'T CLEAN THE MACHINE USING HIGH PRESSURE WATER!**
- ◆ **ONLY QUALIFIED PERSONAL SHOULD OPEN THE POWER BOX!**

CHECK THAT THE CABLE IS
FREE AND NOT PINCHED!

Power Box



SAFETY INSTRUCTIONS

WARNING!

- ◆ **DO NOT PUT YOUR HANDS OR OBJECTS INTO THE VACUUM HOLES WHILE THE MACHINE IS OPERATING!**
- ◆ **DURING WET GRINDING THE VACUUM HOLES SHOULD ALWAYS BE COVERED WITH THE RED PROTECTION CAP!**



Vacuum
Hole

MACHINE ADJUSTMENTS

Place the machine into the working condition.

Adjust the machine with the hydraulic jack in a horizontal position.



Jack

Slide the dust ring down until it is flush with the floor.



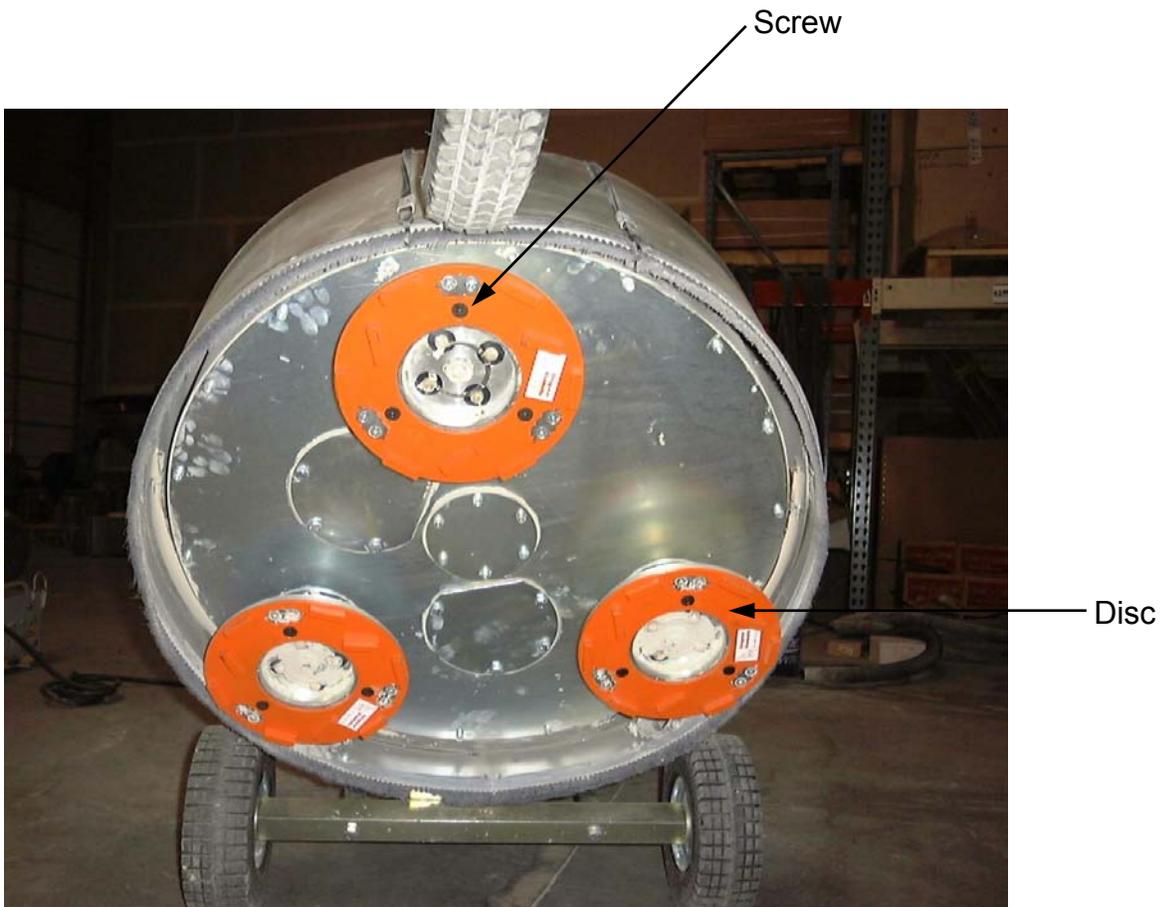
Dust Ring

INSTALLATIONS AND REMOVAL OF TOOLS

Disconnect the machine from the power source.

Tilt the machine back into the position shown.

Each diamond disc is held on by 3 countersunk screws. When installing make sure the tools is aligned properly with the 'centering stars'.



WET AND DRY GRINDING

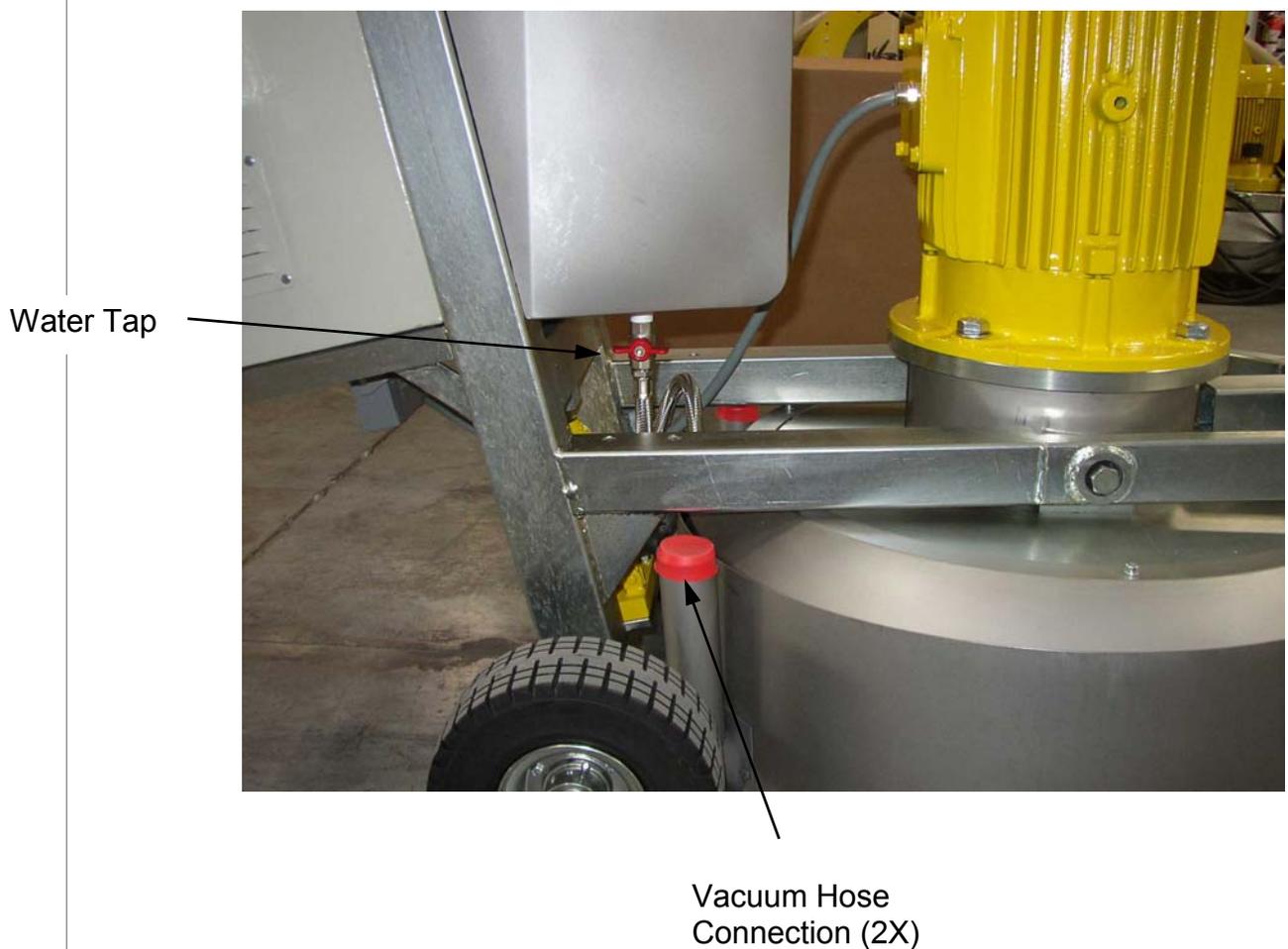
WET GRINDING

Fill the water tank with water.

Rotate the water tap handle to start the water flowing.

DRY GRINDING

Connect the vacuum hose to the 2 vacuum hose connections on the machine.



POWER SUPPLY

Check that you have the correct voltage and have made the correct connections.

Connect power cable on power connector.



Power Connector

START AND STOP PROCEDURE

Adjust the the handle for operation.

Connect the power cable to the machine at the power connection.

Wait until the “NO FAULT” light is on. (A)

Connect the saftey cord to your wrist.

Start the machine by pushing the green start button. (B)

Stop the machine by pusing the red stop button. (C)



CONTROL PANEL

You can choose the speed of the machine with the Speed Control button.

Recommended Settings:

- 0-4: Heavy Duty work
- 4-6: Medium Duty work
- 6-10: Light Duty work

AMP Meter

Volt Meter



Voltage Checking Switch

Speed Control

MAINTENANCE AND CLEANING

Before any work is done on the machine you must disconnect the power supply.

To assure the long life of the machine, it must be frequently cleaned, when doing so you must remember that:

- ◆ Clean the machine with a moist cloth without using any abrasive powers or corrosive chemicals which could cause harm to the machine.
- ◆ **Never use high pressured water on the machine.**
- ◆ Keep the electrical box dry and dust free. Water and dust will destroy the electrical components.
- ◆ Check regularly the bolts and nuts on the machine.
- ◆ Check the belts on the inside of the machine using the inspection hole on the bottom. The inside of the machine and the belt must be dry and dust free.



Inspection Hole

TROUBLESHOOTING

Machine does not start:

Check the power connections.

Check the power source.

Check to make sure the kill switch is not activated.

Machine does not grind effectively:

Check if you are using the correct grinding tools for what you are trying to remove.

Check to see if you have correct amount of pressure on the grinding tools. (See Machine Adjustments)

Machine is unstable:

Check if the discs are mounted and tight.

Machine does not rotate counter clockwise:

Check upper belt

Discs do not rotate:

Check the lower belt. (Rotate one disc, the other two must also rotate)



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Suggested Applications and Guidelines

Diamatic Diamond Disc for Concrete

Disc Color	Grit Size	Binding Material	Binding Hardness	Suggested Application
● Silver	16/18	Metal	Soft	*Coatings Removal
● Blue	20/25	Metal	Soft	*Coatings Removal *Non-aggressive concrete grinding
● Red	30/40	Metal	Medium	*Powerfloated, hard concrete grinding *Some coatings removal
● Black	30/40	Metal	Hard	*Concrete grinding *General use
● Orange	30/40	Metal	Very Hard	*Aggressive concrete grinding
○ White	80/100	Metal	Soft	*Removal of swirl marks from initial grinding step *Concrete polishing *Not recommended as the first grinding step
● Gold	180/200	Metal	Soft	*High-end concrete grinding *Concrete polishing *Never use as the first grinding step

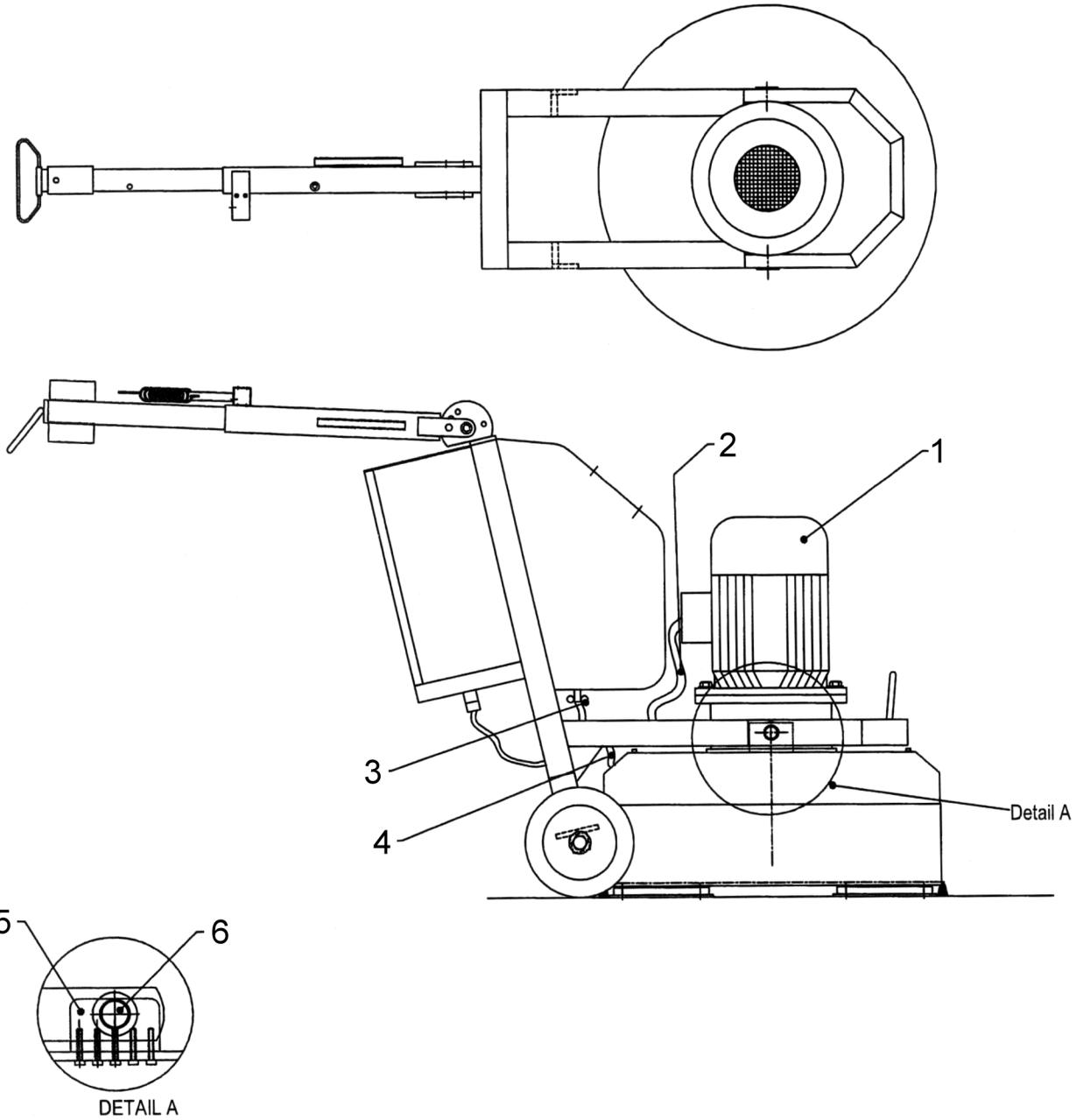
*Coating removal refers to but is not limited to: thin epoxies, urathanes, paints, sealers, adhesives and mastics

Diamatic Diamond Disc for Polishing Concrete

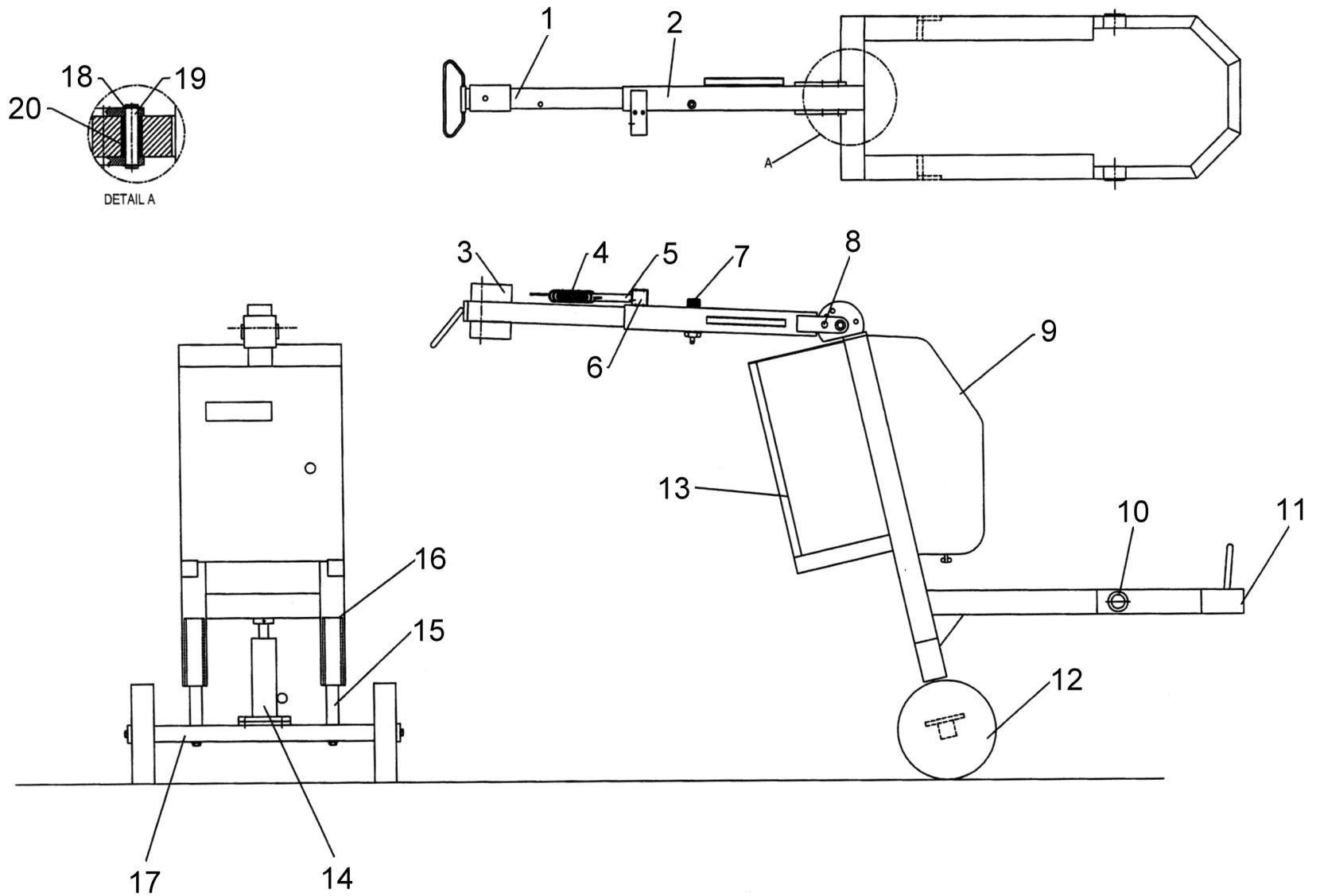
Disc Color	Grit Size	Binding Material	Binding Hardness	Suggested Application
● Black	120	Resin	Very Soft	*First step of concrete polishing *Use after Gold Discs (water required)
● Red	400	Resin	Very Soft	*Second step of concrete polishing *Use after Black Resin Discs (water required)
● Yellow	800	Resin	Very Soft	*Third step for high end concrete polishing *Use after Red Resin Discs (water required)
○ White	1500	Resin	Very Soft	*Fourth step for high end concrete polishing *Use after Yellow Resin Discs (water required)

*Sase Company stocks all the above discs. Others discs with varying grit and binding combinations can be special ordered to meet your application requirement.

Diamatic 780



Diamatic 780 Frame



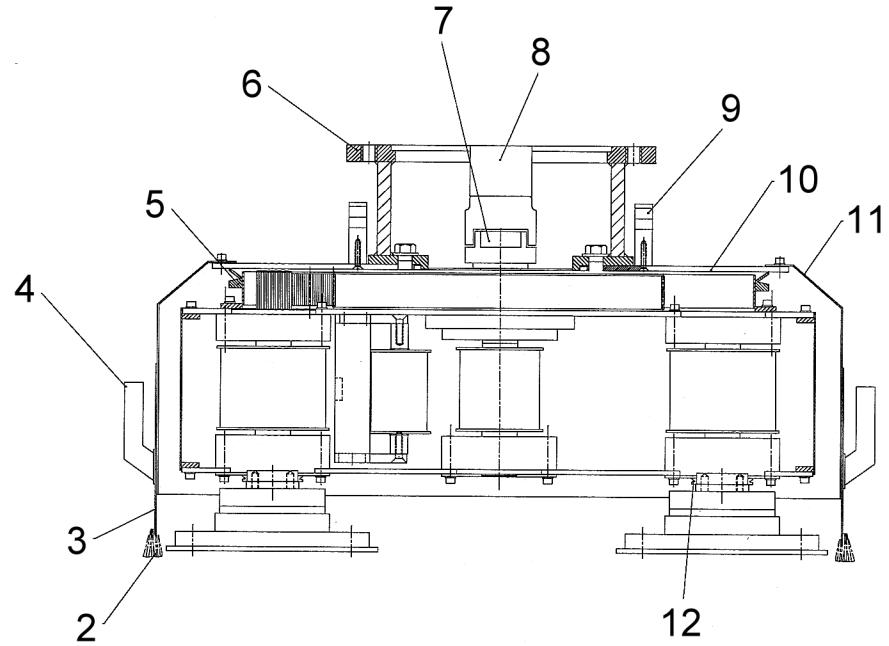
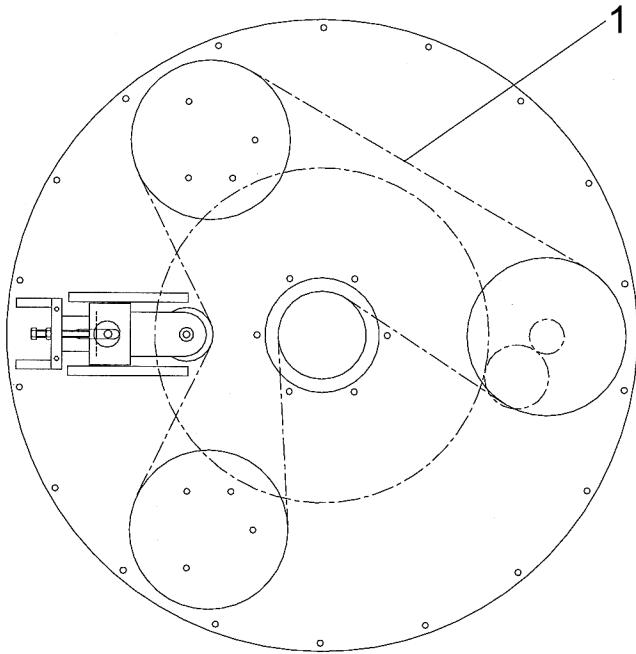
DIAMATIC 780

Revision August 2003

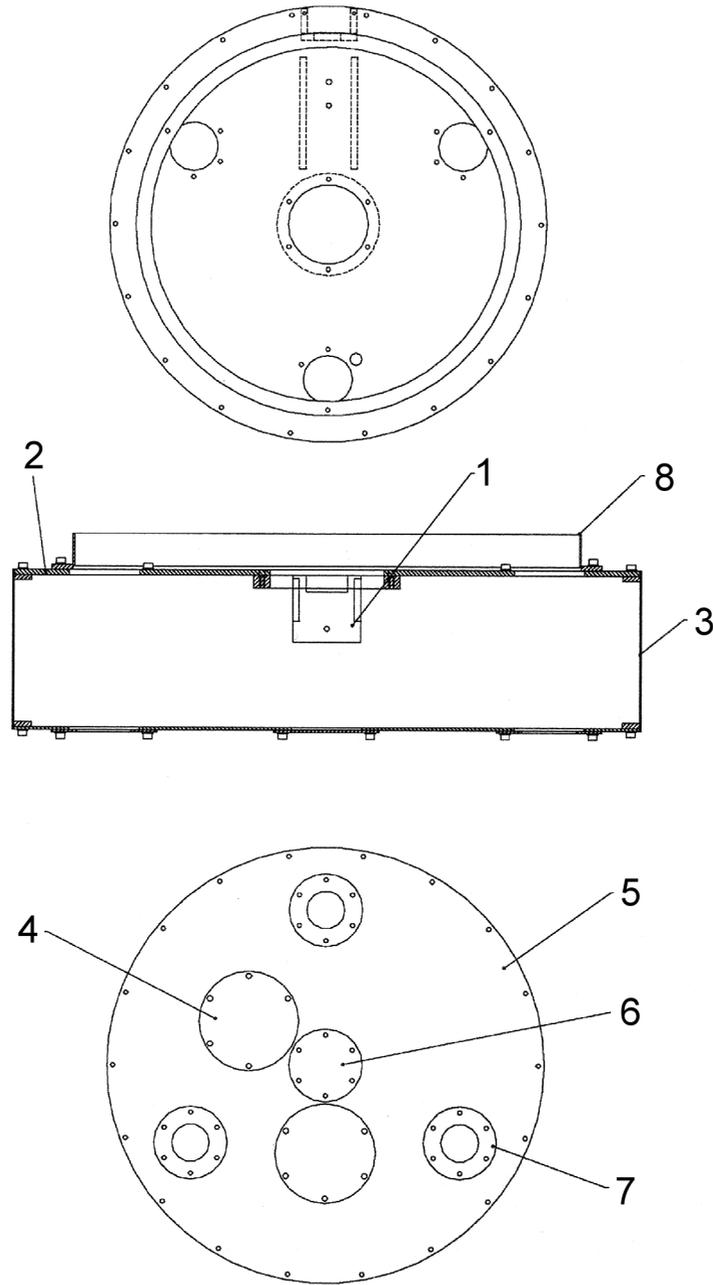
List of items for the Frame

Position Number	Article Number	Item Number	Description	Qty. per machine
1	U11857		TUBE, ADJUSTABLE STEERING	1
2	U11858		TUBE, STEERING	1
3	U11853		WEIGHT, SET	1
4	U11758		CORD, SAFETY	1
5	U11759		PIN, SAFETY	1
6	U11760		SWITCH, SAFETY	1
7	U11856		PIN WITH NUT	1
8	U11851		PIN	1
9	U11859		TANK, WATER	1
10	U11846		BUSHING	1
11	756		FRAME	1
12	U11850		WHEEL, SIDE	2
13	753		BOX, ELECTRICAL	1
14	U11852		JACK, HYDRAULIC	1
15	U11892		ROD	1
16	U11893		BUSHING, GLIDE	2
17	U11891		AXLE, WHEEL	1
18	U11794		RING, RETAINING M15	2
19	U11854		PIN	1
20	U11855		BUSHING	1

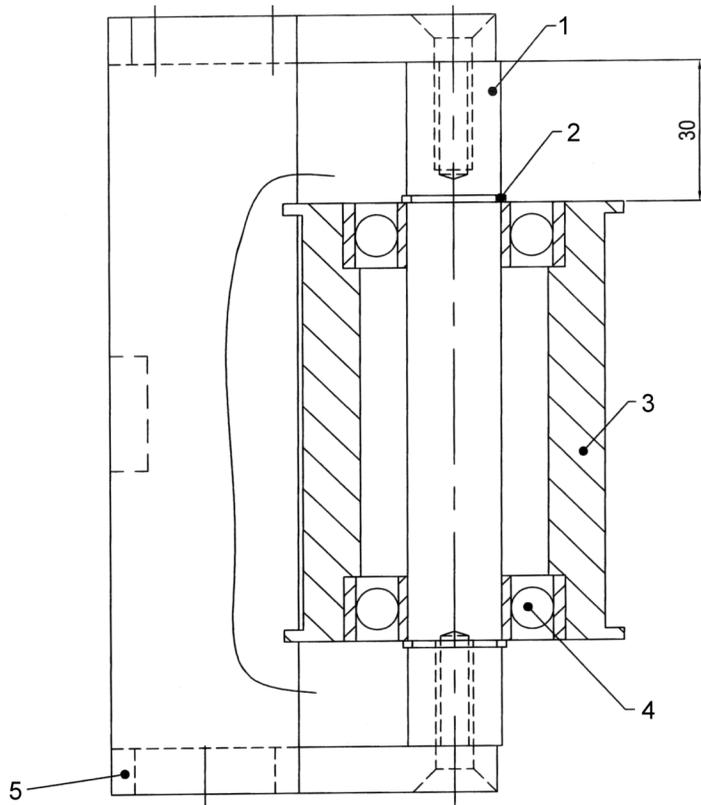
Diamatic 780 Cross Section



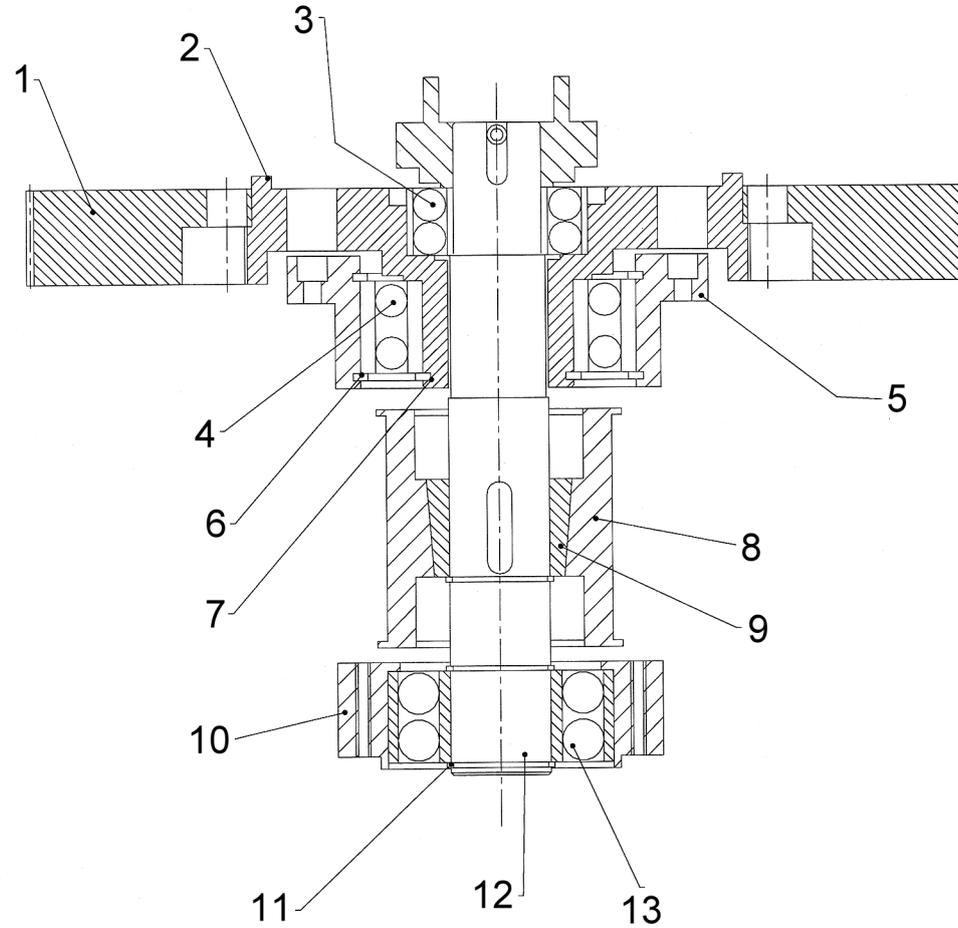
Diamatic 780 Drive Housing



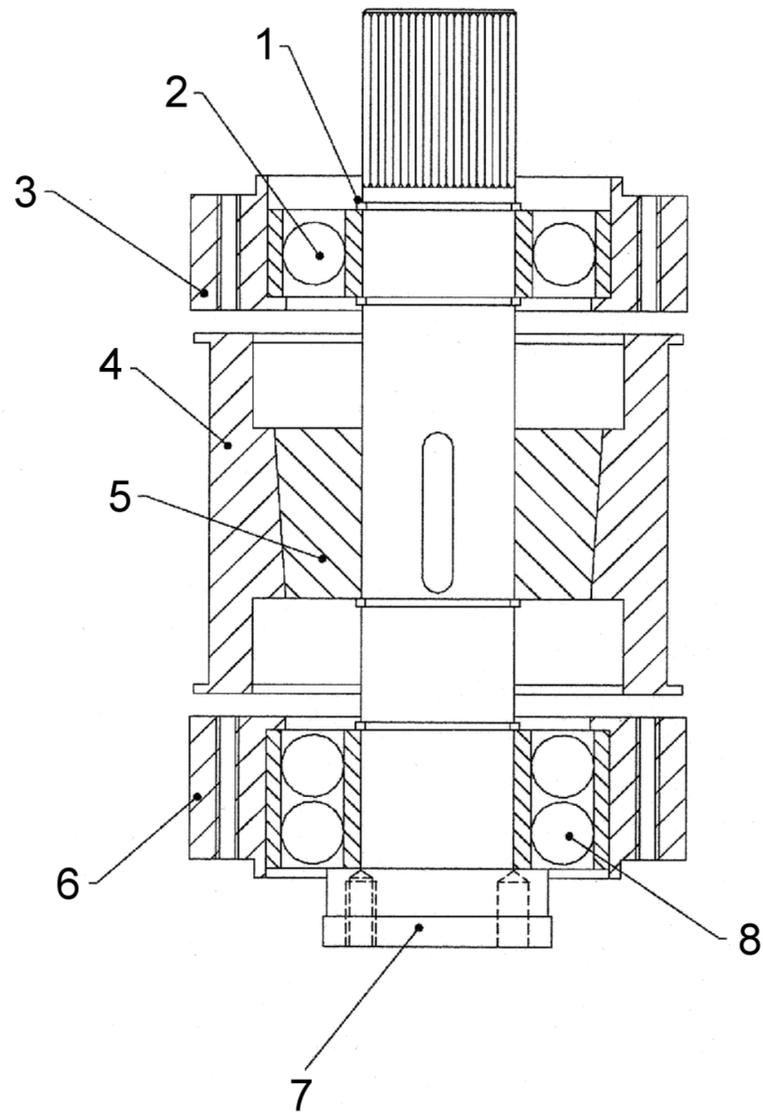
Diamatic 780 Belt Tensioner



Diamatic 780 Center Pulley

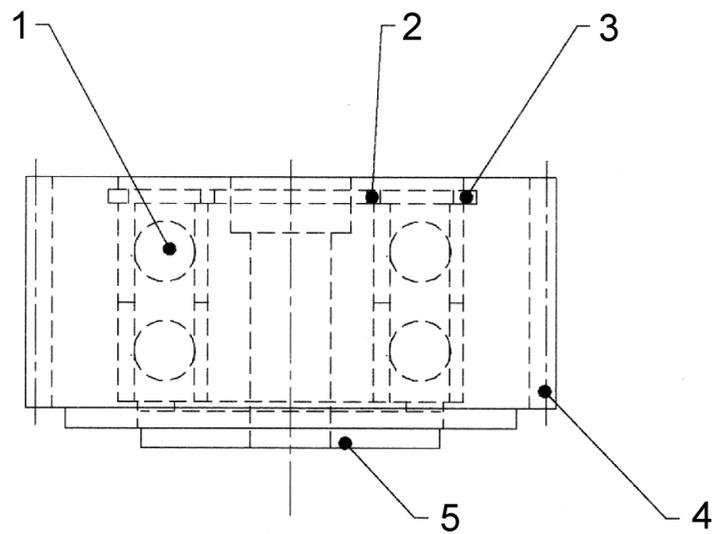


Diamatic 780 Drive Pulley

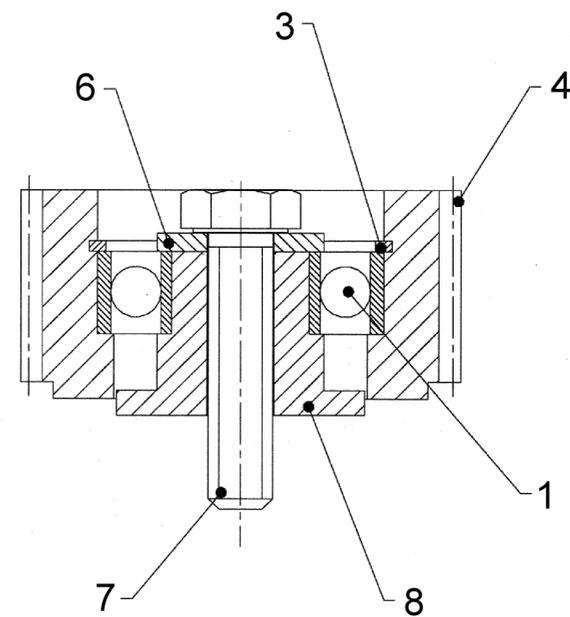


Diamatic 780 Gear Wheel

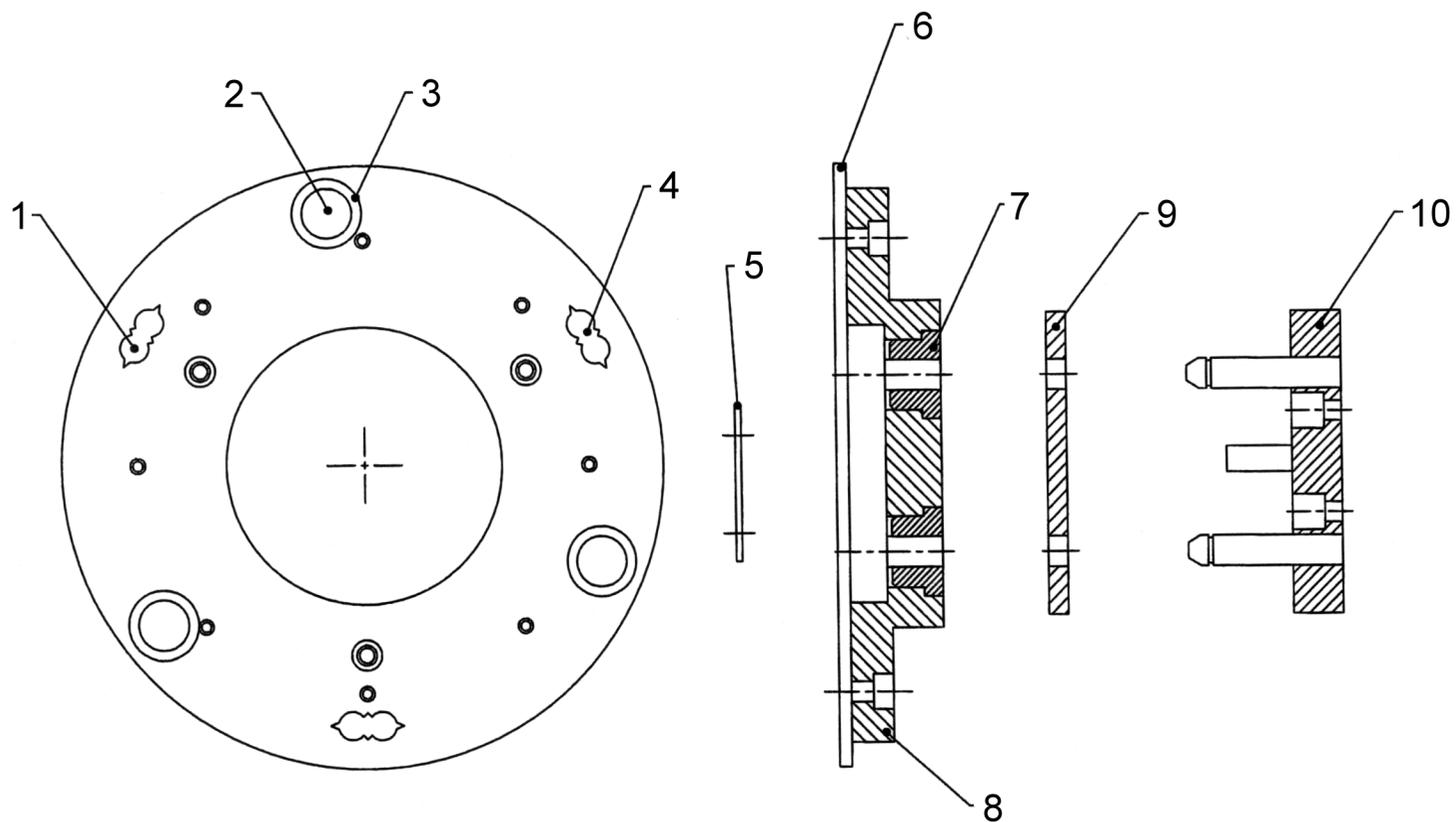
Older Style Gear Wheel
using M8 bolt



Newer style Gear Wheel
using M12 bolt



Diamatic 780 Diamond Holder



3X400V Wiring Diagram with ABB ACS800 Computer

