## **CYH 500** Single Component Hydrophobic type PU



## Description

CYH-500 is a hydrophobic grout based on polyurethane.

Upon contact with water, CYH-500 reacts to closed cell rubber-like foam while expanding its volume up to 27 times. The cured material is of a constant volume. Since water is not a component of the foam structure, the cured material is essentially not affected by water or dryness. The reacted material does not shrink or swell. Depending on the pressure of injection, CYH-500 reacts to a very dense material or foam.

## Uses

Areas of application include:

- Defective concrete (cracked or honeycombed)
- Concrete joints, Limestone, Brick construction
- > Pipe intrusions, Waste water tanks
- Tunnels, Dams, Subway(Metro), Sewers, Manholes, Utility boxes, etc.
- Soil stabilization

## Advantages

- Negative side application possible
- Deep penetration into very small cracks
- Foam increases in volume to fill cavities and voids
- Excellent bond to surfaces
- Good adhesive strength, tolerant of movement
- Inert after curing, constant volume, no shrinkage
- Dose not create new cracks

Form	Liquid Type	
Color	Dark Brown	
Solubility in Water	Hydrophobic	
Density (g/ml)	1.12	
Viscosity (KS F 4923)	100-200 mPa⋅s	
Max. Expansion (25°C)	2,700 % [Ratio 10:1 Resin : Water]	
Induction Time (25°C)	15 sec [Ratio 2:1 Resin : Water]	
Gel Time (25°C)	110 sec [Ratio 2:1 Resin : Water]	
Tensile shear strength (23°C), (KSM 3705)	4 N/mm <sup>2</sup>	
Appearance	Light yellow Polyurethane Foam	
Corrosiveness	Non-Corrosive	
Chemical Resistance	Resistant to more organic Solvent, Mild Acids, Alkali	
Shelf Life	1 year when unopened and undamaged	
Storage Condition	Store in a dry cool place	
Packaging	20 kg/pail	

## Technical & Physical Data

## Important Notes

- Minimum ambient and substrate temperature is 5°C.
- Material shall be store in a dry cool place.
- Good storage stability for unopened containers at 15 °C~30°C



## Single Component Semi-rigid Polyurethane



## Description

CYH-202 Semi-hydrophobic Polyurethane Grouting is used to stop leaks and fill underground voids. CYH-202 is a polymer solution which cures when reacted with water, CYH-202 can not only stop the water, but also it can stop or slow the deterioration of steel bar or other internal features of the concrete. This success is due to the placement of CYH-202 throughout the depth of the crack.

## Advantages

- } Underwater injection approved
- } Good elastic strength, tolerant of movement
- } Inertafter curing, constant volume, no shrinkage
- } Foam increases in volume to fill cavities and voids
- } Excellent bond to wet surfaces
- } Negative side application possible
- } Deep penetration into very small cracks
- } Dose not create new cracks

Technical & Physical Data

## Uses

- Areas of application include:
- } Retaining walls
- } Bathrooms
- } Floor slabs
- } Water tanks
- } Terraces and balconies
- } Patios
- } RC gutters and planter boxes
- } Swimming pools
- } Suspended floors
- } Basements and fountains

Form	Liquid Type
Color	Transparent Light Ivory
Solubility in Water	Semi-hydrophobic
Density (g/ml)	1.09
Viscosity (KS F 4923)	150-250 mPa⋅s
Max. Expansion (25°C)	1,700 % [Ratio 10:1 Resin : Water]
Induction Time (25°C)	20 sec [Ratio 2:1 Resin:Water]
Gel Time (25°C)	80 sec [Ratio 2:1 Resin:Water]
Elongation at break (%)	>30
Tensile shear strength(23°C), (KS M 3705)	3 N/mm <sup>2</sup>
Appearance	White Polyurethane Foam
Corrosiveness	Non-Corrosive
Chemical Resistance	Resistant to more organic Solvent, Mild Acids, Alkali
Shelf Life	1 year when unopened and undamaged
Storage Condition	Store in a dry cool place
Packaging	20 kg/pail

## Important Notes

} Minimum ambient and substrate temperature is 5°C

} Material shall be store in a dry cool place.

} Good storage stability for unopened containers at 15°C ~ 30°C.



## **CA101** Single Component Hydrophilic Polyurethane



## Description

CY-101 Hydrophilic Polyurethane Grouting is used to stop leaks and fill underground voids. CY-101 is a polymer solution which cures when reacted with water, CY-101 can stop the water, it can stop or slow the deterioration of steel bar or other internal features of the concrete. This success is due to the placement of CY-101 throughout the depth of the crack.

## Uses

Areas of application include:

- } Bathrooms
- } Water tanks
- } Patios
- } Swimming pools
- } Basements and fountains
- } Retaining walls
- } Floor slabs
- } Terraces and balconies
- } RC gutters and planter boxes

Technical & Physical Data

} Suspended floors

## Advantages

- } Underwater injection approved
- } Good elastic strength, tolerant of movement
- } Inert after curing, constant volume, no shrinkage
- } Foam increases in volume to fill cavities and voids
- } Excellent bond to wetsurfaces
- } Negative side application possible
- } Deep penetration into very small cracks
- } Dose not create newcracks

## Important Notes

- Minimum ambient and substrate temperature is 5°C
   Material shall be store in a dry cool place.
- Good storage stability for unopened containers at 15°C ~ 30°C

Form	Liquid Type
Color	lvory
Solubility in Water	Hydrophilic
Density (g/ml)	1.13
Viscosity (KS F 4923)	180-300 mPa⋅s
Max. Expansion (%)	1,550 % [Ratio 10:1 Resin : Water]
Induction Time (25°C)	15 sec [Ratio 2:1 Resin:Water]
Gel Time (25°C)	70 sec [Ratio 2:1 Resin:Water]
Elongation at break (%)	>30
Strength (Sand Filled)	1 N/mm²
Appearance	White Polyurethane Foam
Corrosiveness	Non-Corrosive
Chemical Resistance	Resistant to more organic Solvent, Mild Acids, Alkali
Shelf Life	1 year when unopened and undamaged
Storage Condition	Store in a dry cool place
Packaging	20 kg/pail



Double component Type High Strength Polyurethane Water Stop Material

## Description

CY-505 is Double component type hydrophobic polyurethane resin that cuts off water from cracks and reinforces the maintenance works on concrete structures, subways and tunnels.

It is a low expansion water stop reinforcing agent of which the water reaction expansion ratio is minimized. Compared to conventional polyurethane water stop materials, it is stronger and its hardened foam is more rigid. It does not generates defects by foam deformation and it provides virtually permanent water stop effect.

## Features

- } With its low viscosity property, it penetrates into leakage sections in tiny cracks and provides perfect water stop performance.
- After hardened, it provides excellently higher compressive, adhesive and tensile strengths that the mechanical strength of conventional concrete structures.
- Since its potlife is sufficient (about 30-50 minutes) when the base agent and the curing agent are mixed, injector, it can be injected by the single component injector (CY-800 M1/M2, CY-1000).

### Advantages

- } Reinforcement of deteriorated concrete structure
- } Repair concrete cracks for water-stop
- Uses
- } Defective concrete (cracked or honeycombed)
   } Tunnels, Dams, Subway(Metro), Sewers, Manholes,
- It is possible to use at dry and wet concrete cracks.
- } Deep penetration into finest cracks
- } Inert after curing, no shrinkage
- } Does not create new cracks.

## Packing Unit

Base agent (20kg) and curing agent (20kg)

	Base Agent	Curing Agent
Mixing Ratio (Weight Ratio)	100	100
Appearance	Dark Brown Liquid	Colorless Transparent Liquid
Viscosity (mPa-s)	250	210
Specific Gravity (g/ml)	1.21	1.03
Pot Life (25°C)	30-6	0 min.
Curing Time(25°C)	After 24 hrs.	
Compressive strength (25°C)	55N/mm <sup>2</sup>	
Tensile strength (25°C)	18N/mm <sup>2</sup>	
Tesile shear strength (25°C)	7.6N/mm <sup>2</sup>	
Expansion Ratio(25°C)	100% ~ 110% [ Ratio 200% [ Ratio 2	1:1 Base Agent : Curing Agent] 10:1 Mixed Agent : Water]



Double Component / Low Viscosity Dry Epoxy Injection Agent

## Description

It is a specialized repair and reinforcement material that is injected to cracks in the various types to keep the initial concrete state by maintaining the best adhesiveness.

## Features

To easily inject by crack width, it is divided into the ultra-low viscosity product, the low viscosity product, the mid-viscosity product and the high viscosity product.

To control the curing speed, it is divided into the summer product, the spring and fall product and the winter product. Its curing speed can be controlled by the user's requirement.

When fully hardened after injected, it does not chemically affect the concrete structure and it prevents corrosion on it so highly durable.

## Usage

} Crack repair or steel plate reinforcement

} Bird-caged floor (artificial stone or marble) repair and reinforcement

} To be injected by using syringe injectors, injection pumps.

	DEL090
Mixing Ratio (Base Agent: Curing Agent)	2:1 (Weight Ratio)
Pot Life (25°C)	30-50 min.
Curing Time (25°C)	After 24 hrs.
Viscosity (mPa-s)	210
Specific Gravity	1.18
Tensile strength	56 N/mm <sup>2</sup> (KS F 4923)
Compressive strength	117 N/mm <sup>2</sup> (KS M 3015)
Adherence strength	7.5N/mm <sup>2</sup> (KS F 4923)
Injecting Tool	Injector, Grease Gun, Injection pump
Packing Unit	base agent (10kg) : curing agent (5kg)
Theoretical Consumption	Width 0.3mm x Thickness 300mm : 0.15kg/m (Differ according to site condition)

## Double Component Dry Sealant for Crack and Steel Plate Reinforcement

## Description

It is a typical high strength epoxy sealant for concrete structure repair and reinforcement. It is used on the crack sealing for the epoxy injection work, the steel plate reinforcement sealing and the syringe injector pedestal mounting and other multiple sealing works. And, it is highly adhesive to concrete and highly impact resistant.

## Features

DEP009, with its outstanding property, is excellently adhesive to a wide variety of materials such as concrete, metal, cement and mortar.

Since it does not run down, it is highly workable on the vertical surface and the ceiling. When fully hardened, it does not chemically affect the steel reinforcement in the structure or the concrete structure. After hardened, it is free of internal stress so to maintain the stably adhesive structure. Compared to the cement mortar or the concrete, it exhibits outstanding mechanical strength in every aspect such as compressive strength, the flexural rigidity and the tensile strength.

## Usage

Crack sealing for crack repair, pedestal mounting and steel plate reinforcement sealing

	DEP009
Mixing Ratio (Base Agent: Curing Agent)	1:1 (Weight Ratio)
Pot Life (25°C)	30-50 min.
Curing Time (25°C)	After 24 hrs.
Viscosity (mPa-s)	Paste
Specific Gravity	1.74
Tensile strength	21.2 N/mm <sup>2</sup> (KS F 4923)
Compressive strength	53 N/mm <sup>2</sup> (KS M 3015)
Adherence strength	6.8 N/mm <sup>2</sup> (KS F 4923)
Packing Unit	base agent (10kg) : curing agent (10kg)
Theoretical Consumption	Crack Width 0.3mm: 0.2kg/1m (Differ according to site condition)

Double Component Low Viscosity Wet Epoxy Injection Agent



## Description

It is a specialized repair and reinforcement material that is injected to cracks with wetto keep the initial concrete state by maintaining the best adhesiveness.

The humidity, moisture, and oil at construction structure cause a damage to the chemical reaction of between epoxy resin and hardener, and cause the decrease of strength, adhesion.

HEL-080 is epoxy for wet by increasing hydrophile, as the solution of the problem.

HEL-080 is a specialized in the cracks with wet, moisture, humidity.

HEL-080 is low viscosity, which is capable of injecting into fine cracks.

## Features

It is excellent at wet side and wet cracks.

To control the curing speed, it is divided into the summer product, the spring and fall product and the winter product. Its curing speed can be controlled by the user's requirement.

It is easy to mix and barely shrink.

When fully hardened after injected, it does not chemically affect the concrete structure and it prevents corrosion on it so highly durable.

## Usage

Crack repair or steel plate reinforcement on wet & moisture concrete

	HEL080
Mixing Ratio	2(Base Agent) : 1(Curing Agent)
Pot Life (25°C)	15 min.
Set-to-touch Free Curing Time (25°C)	After 24 hrs.
Viscosity (mPa-s)	600
Specific Gravity	1.18
Tensile strength	54 N/mm <sup>2</sup> (KS F 4923)
Elongation percentage of tensile strength	2% (KS F 4923)
Compressive strength	114 N/mm <sup>2</sup> (KS M 3015)
Adherence strength	8.9 N/mm <sup>2</sup> (KS F 4923)
Injecting Tool	Grease Gun, Injection pump (CY-800/CY-1000)
Packing Unit	base agent (10kg), curing agent (5kg)

# CY-1000 Injection Pump

High pressure Grouting Injection pump for Epoxy resin and Polyurethane foam Electric Drill operated (Makita drill Model HP1630k & HP2070F) High pressure 610-1,000 kgf/cm<sup>2</sup> grouting injection pump

SPECIFICATIONS	CY-1000
Transmission Function	1-speed
Power Comsumption	AC220V. 710W
Maximum Pressure	610kgf/cm <sup>2</sup>
Recommended Pressure	300-500
Max. Flow Rate	400cc/min
Weight	6kg
Unit Composition	Sameaspictures



## Structure Diagram and Part No.

Model	Section	Part No.
		1-1
	Drill Section	1-2
		1-3
		2-1
CY-1000	Piston Section	2-2
		2-3
		3-1
		3-2
	Crank Gear Section	3-3
		3-4
		3-5

\* When you need spare parts, Pls. contact us with part number. conrepair@con-repair.com

## Features

- } Very simple to operate.
- } Easy to carry in narrow and small space because its light weight & compact design.
- } Easy to exchange piston.
- } Low maintenance cost and Easy to clean after use.



# **CY-800M1 CY-800M2**

## **Injection Pump**

High pressure Grouting Injection pump for Epoxy resin and Polyurethane foam Electric Drill operated (Makita drill Model HP1630k & HP2070F) High pressure 610-1,000 kgf/cm<sup>2</sup> grouting injection pump

## CY-800M1

## CY-800M2



SPECIFICATIONS	CY-800M1	CY-800M2
Transmission Function	1-speed	2-speed
Power Comsumption	AC220V. 710W	AC220V. 1010W
Maximum Pressure	700kgf/cm <sup>2</sup>	1,000kgf/cm <sup>2</sup>
Recommended Pressure	300-500	300-500
Max. Flow Rate	400cc/min	700cc/min
Weight	12kg	14kg
Unit Composition	Same as pictures	

## Features

- } Very simple to operate.
- } Easy to carry in narrow and small space because its light weight & compact design.
- } Easy to exchange piston.
- } Low maintenance cost and Easy to clean after use.



## Parts & Accessories



High pressure Hose (3m/4m/6m)



Grease gun coupler



Wire switch



Grease gun coupler with valve



Container



Pressure gauge



Zerk for injection pump



Piston : for CY-800 (Ø8 / Ø10) / for CY-1000



## **Injection Packer**

It is expendable tools for using to inject Polyurethane and Epoxy into concrete cracks. The ConRepair's packers bear up against high pressure, have strong durability, and were designed for easy installation and easy removal. Also, we manufacture all sizes which are able to cover whole construction industry.



Users can extend packer's length by adding Aluminum body.

8Ø X 55mm		
10Ø X 60mm	10Ø X 100mm	10Ø X 140mm
13Ø X 70mm	13Ø X 120mm	13Ø X 150mm
14Ø X 70mm	14Ø X 120mm	14Ø X 150mm

## Packer sizes

## **Injecting Method (Pump)**



1. Check crack area and Clean up the surface with wire brush or grinder.



2. Drill holes near cracks using hammer drill, wit 1 45° angle from surface as image 2-1. To prevent that packers don't penetrate through a crack as image 2-2, hole positions must be zigzag as image 2-3, and also make hole distances with every 15~20cm.















6. Pour the Resin to the plastic bottle.



7. Connect the grease coupler with the installed packer. (Inject first at low area, and then go to upper area. Down  $\forall p$ )



8. Push the switch for running machine, and inject PU foam or Epoxy resin into a hole. Start with low pressure, and increase pressure. When PU foam or Epoxy flows out from the cracks, stop injection, and move to another packer, and start injection again.



9. After finishing injection work, remove packers by hitting packers using a hammer. Clean the surface using a scraper or a grinder, and if needed, coat with sealing materials.



## **SYRINGE INJECTOR**

It is used for low pressure injection. The syringe injector is able to inject epoxy into small cracks at large area at the same time, and its transparent syringe body allows you to observe the injected dosage.

Specifications	
Filling Capacity	50 ml/cc
Max. Pressure	3.0 kgf/cm <sup>2</sup>
Max. Length	225mm
Min. Length	147mm
Weight	40g



## Features

The Transparent syringe allows you to observe the injected dosage.

It is designed for low pressure injection.

It is used for injecting epoxy into small cracks at large area.

Crack repair work is possible without breaking or destroying the concrete structure.



## Injecting Method (Syringe)













- 1. Check the cracks' positions, widths and depths using crack gauge.
- 2. Clean the surface and remove any dust or contaminated materials from the concrete surface using scraper and wire brush, and determine the injection method.
- 3. Mark the places which will install pedestals. The required number of syringe per one meter depends on the conditions of concrete thickness, width, depth. In most cases, 5~6 syringes per meter is appropriate.
- 4. Seal the cracks using epoxy putty (DEP-009) except the marked places.
- 5. After applying epoxy putty at the edge of pedestal, attach the pedestals to the marked places, and make sure all cracks covered seamlessly.
- 6. DEL-090 is the Double component type epoxy for dry, therefore mix the resin and hardener each other with the accurate ratio of 2:1. The pot life varies depending on the site environment and the material temperature, therefore, check the pot life by mixing the small quantity before mass use.
- 7. Suck the mixed epoxy inside syringe (30cc), and mount the syringe into pedestal, and fasten the syringe and pedestal each other using the rubber band. (Start from low area, then go to upper area. Down $\rightarrow$  Up)
- 8. When epoxy is hardened, remove syringes and pedestals, and do the surface finishing work by using the hand grinder.



## Field Working Site





## **CARBON FIBER**

**Advanced Reinforcement Solution** 

It is cutting edge new material for loadbearing capacity improvement and seismic retrofit, and have very strong tensile strength than steel, and have been used for repair and reinforcement of concrete structure since 1990s. Specially quake-prone countries like Japan have used carbon fibers lately and largely.

## Features

- } High reinforcement with more than 10 times tensile strength than steel
- } Reinforcement with the less quantity than steel.
- } Light weight : specific gravity is one-fifth of steel
- } No deterioration by external factors like water, base, acid or ultraviolet rays
- } Easy to work in small place because whole process by using hand
- } Site workability is outstanding

item	CU-P200	CU-P300	CU-P400	CU-P600
Fiber Areal Weight(g/m <sup>2</sup> )	200	300	400	600
Design Thickness(mm)	0.11	0.167	0.22	0.33
Tensile strength (kgf/cmW)	390	590	780	900
Sheet width(mm)/length(m)	500/100	500/100	500/100	500/100



# ACY-800 (Machine)



## Specification

	ACY-800 : Acrylate injection pump
Driving System	Electric Motor
Weight	29kg
Size (L x W x H)	470mm x 430mm x 650mm
Power	AC220V 1.1KW
Mixture Ratio	1:1
Hose length	8mx2
Tank	10Lx2
Discharge Pressure	Max. 300kgf / kgf/cm <sup>2</sup> G (Recommend under 100 kgf/cm <sup>2</sup> )
Discharge Volume	1L~1.5L/min





## Features

- } Double component type grouting pump with high performance (running by electric motor).
- } Pump discharges with accurate 1:1 mixing ratio.
- } It is developed for using rapidly-hardening type product.
- } It is possible to adjust hardening time by controlling the catalyst amount.
- } It is easy to use and move (portable, 29kg) at job site, and wheel-stopper makes no-move at slope.
- } After using, it is easy cleaning up, just by using water.
- } It is easy to change spare parts.
- } All parts contacting with acryl is made stainless steel.

	ACY-808
Form	Liquid Type
Color	Transparent
Viscosity (KS M 3705)	2.7 mPa-s
Compressive Strength (KS L 5105)	0.08 N/mm <sup>2</sup>
Specific Gravity (Cup Method) (KSM 3705)	1.03
Tension-shear adhesive strength	0.84 N/mm <sup>2</sup>
Tensile Strength (KS F 4923)	0.34 N/mm <sup>2</sup>
Permeability Coefficient (KS F 2322)	Not Permeability
Appearance	Colorless and Transparent Jelly
PH (20°C)	7.5~9.5
Gel Time (20°C)	5sec. ~ 2 min.
Mixing Ratio	Aagent (20kg): Bagent (20kg): C catalyst (600g)
Shelf Life	1 year when unopened and undamaged
Storage Condition	Store in a dry cool place
Packaging / set	Aagent (20kg): Bagent (20kg) Catalyst (600g)





Amount of accelerant (%)	Hardening Time
80g (0.40%)	1m30s±10s
160g (0.80%)	50s±10s
320g (1.60%)	25s±10s
640g (3.20%)	8s±5s
800g (4.00%)	5s±2s

Note: The amount of accelerant may vary depending on the temperature.





## Usage

- } Water-proof grouting work for underground structure (Subway, tunnel, parking lot, manhole, etc)
- } Water-proof work for civil structure such as dam, etc
- } Water-proof work for the ground of concrete structure
- } Water-proof work for leaking area of underground structure
- } Water-proof work for constructed joint area and cracked area

## Characteristic of acryl rear grouting agent

## } Safety :

Acryl rear grouting agent does not generate harmful gas when hardened, and it is safe as product does not contain any flammable material

## } Workability :

Having low viscosity, it shows excellent performance especially in case of minute crack work, and even in case of work for the area where water pressure is high, unequalled construction quality can be realized, compared with existing water-proof agent, because hardening time can be adjusted.

## } Jellify :

Re-water leakage can be prevented fundamentally by making water into gel that is collected in pore of rear side or flowing through.

## } Adhesiveness :

Having excellent property of high elasticity and adhesiveness, water proofing effect can be expected which lasts for a long time after work.

## } Coefficient of expansion :

Having excellent coefficient of expansion, it can eliminate post-work defect factor caused by vibration to structure, etc.

## } Durability :

This hardened product has excellent durability because it does not cause any hydrolysis phenomenon.







## 1. Specification of Spray Machine

Model	YH-8	3000	YH-1	Domorko	
Description	Engine	Motor	Engine	Motor	Remarks
Power requirement (HP)	5.5	2(220V.60Hz)	5.5	2	Honda
Free - Flow output (Ipm)	6.5	4	7.6	5.3	
Max. working Pressure (kg/cm <sup>2</sup> )	248	225	207	181	
Max. tip size	1gun, .036″ 4guns, .019″	1gun, .031″ 4guns, .021″	1gun, .043″ 2guns, .027″ 3guns, .019″	1gun, .031″ 2guns, .023″ 3guns, .015″	
Hose Length (Max.)	150M			100M	
Weight(Net)	58kg	63kg	55kg	60kg	
Dimension(mm)	910 x 600 x 1,000	910 x 600 x 1,000	910 x 600 x 820	910 x 600 x 820	





## **Features**

- Easy movement during work and easy power interchange of electricity or gasoline engine
- Satisfying all condition of work and save the cost of maintenance by steady equipment
- Simplification of power transfer equipment makes flexibility and minimize the cause of trouble basically.
- You can use water base, oil base or other base of paint variously.

## Caution & Warning

- 1. Moving parts can pinch, cut or amputate fingers and other body parts. so, be careful extremely.
- 2. The spray pressure is extremely high. Do not spray to people. Do not use hand for testing pressure. Extremely dangerous!
- 3. Do not remove the belt cover while using.
- 4. Before inspection for machine, make sure the pressure is Zero.
- 5. The Max. pressure is 240kgf/cm2. Therefore, extra parts or equipment you want to add on the pump, must be considered the pressure.
- 6. Always wear appropriate gloves, eye protection, and a respirator or mask when working.
- 7. Do not alter or modify equipment. Alterations or modifications may create safety hazards.

## Setup

- 1. Connect Spray hose with the pump tightly.
- 2. Check the engine oil and fuel level. If see shortage, fill more according to manu
- 3. Check if the belt condition is o.k.
- 4. Open the pressure controller, hydraulic oil valve, drain valve.
- 5. Place the suction hose & the drain hose in the pail with chemical material.
- 6. Start engine : Pull the starter grip lightly until you feel resistance, then pull briskly in the direction of the arrow as shown. Return the starter grip gently.
- 7. After 1~2 min. engine running, when material drains out through the drain hose, close the drain valve. (\* It is the process for removing Air inside. \* Do it for 3~5 min. at winter or cold weather.)
- After pressure goes up, and when the piston stops moving, set the right
  pressure you want to use by turning the pressure controller. (Clockwise rotation : pressure 2 / Counterclockwise rotation : pressure ∠)
- 9. While using the pump, check the fuel level and chemical material. If see shortage, refill again.
- 10. Clean the pump as soon as finishing using.

## STARTER GRIP







## Clean Up

2.

- 1. Make sure first that there is no paint or PU inside the pump and hoses.
- 2. Place the suction hose, spray hose, drain hose in thinner pail.
- 3. Run the machine at the middle level pressure. (while thinner is circulating from suction hose to spray hose, it is cleaned)
- 4. Open the drain valve for cleaning drain hose.
- 5. Separate and disassemble the suction strainer, surge tank, gun(tip), and then clean thoroughly.

## Simple Problem Solution & Storage

- 1. When the upper section head is not running at initial operation, it is caused by air inside the hydraulic oil line. -Disassemble the head bolt, and pressure hard inside parts, and then restart.
- When suction hose is not sucking, clean the machine with thinner according to the cleaning method, and restart.
- -If it doesn, t work even after cleaning, disassemble the pump lower section, and clean all parts, and reassemble.
- 3. When the belt is loose or has abrasion, exchange with brand-new belt. (Belt spec. : A type Number 42)
- 4. When moving, storage, uploading, loading, unloading, separate the engine from the main body.

Separating Engine from Main base



① open the belt cover



③ Slightly unload the motor, and untie the belt from the motor.



2 Unscrew the bolt, and open hook.



④ Separate the motor from main body.





## [Part Diagram and number of YH-8000]

## \* Lower Pump parts list

No.	Part No.	Description	Qty
4-A	614-1254	Gland (Female)	2
4-B	614-1255	Gland (Male)	2
5-A	614-1256	V-packing, Gur/Teflon	6
5-B	614-1257	V-packing, Leather	4
7	614-1143	Displacement Rod	1
8	614-1260	Spacer-washer	1
9	614-1146	Piston Ball	1
10	614-1145	Piston Valve	1
11	614-1142	Cylinder Sleeve	1
12	614-1147	Sleeve'O'ring	1
13	614-1150	Ball Guide	1
14	614-1151	Suction Ball	1
15	614-1153	Suction Valve Housing	1
16	614-1157	'O'ring	1
17	614-1152	Suction Valve	1
18	614-1270	'O'ring	1
19	614-1271	Washer	1
20	614-1272		1
21	614-1273	Elbow	1

## \* Surge Tank parts list

No.	Part No.	Description	Qty
1	614-2201	Filter Cap	1
2	614-2202	Spring	1
3	614-2203	Ball	1
4	614-2204	Surge Filter, 60M	1
5	614-2205	Gasket	1
6	614-2206	Nipple	1
7	614-2207	Filter Body	1
8	614-2208	Nipple, outlet	1
9	614-2214	Nipple, outlet	1
10	614-2213	Swivel Nipple	1
11	614-2216	Сар	1
12	614-2218	Сар	1
13	614-2215	PLUG	1
14	614-2212	Oil pressure gauge	1
15	614-0023	T-socket	1
16	614-0079	Nipple	1
17	614-2211	Drain Valve	1





## **SNP-1500R** Integral Vacuum Type

SMP-1500R is designed for large scale construction and used for grinding, surface preparation, polishing. With higher effectiveness, it can reach a range of sheen state easily equipped with SM metal tools and SM resin pads. Remote control or joystick is available as option. Also, you can choose 3-head or 4-head.

## Features

- Remote control, Joystick as option
- } Integral vacuum Cleaner
- } Weight Shifting System
- } Electrical Lifting System

## **Benefits**

## Remote Control

Remote control can increase productivity as well as make time for users

to prepare next step or arrange other work. Start switch and emergency switch are equipped.

## } Patented Technology : Integral Vacuum Cleaner

Installed dust box can offer 3 in 1 function. Firstly, it can collect dust generated from polishing process with resin pads. Secondly, to control heavy dust from grinding, you can connect the machine to another industrial vacuum cleaner. Thirdly, it is designed to serve as a water tank duringwet type grinding & polishing. 2 vacuum motors are installed so user can choose to operate 1 motor or 2 motors.

## } Patented Technology : WSS

WSS(Weight Shifting System) is not only safer for users but also improves work efficiency

by putting weight pressure on your desired spot indicated on the diagram. Also,

it can serve as footrest, pushing up front part of machine.

## } Electrical Lifting System

 $This system \, can adjust the height of a brasives timely during operation, which \, can ensure grinder's optimal operation capacity.$ 

## } Driving Wheel

In remote control or joystick mode, the speed of driving wheel can be adjusted, which is displayed

in LED. Urethane rubber wheel does not leave tire marking and the machine can move along 45 degree angle.





	SMP-1500R Specification										
Model	Siemens Motor	Schneider Inverter	Hertz	Voltage	Ampere	Work Area	Water Tank	Weight	Dimension (mm)	Rotation	Revolution
SMP-1500R	15HP	20HP	50~60 Hz	220V, 380V 440V, 480V	20 ~ 30A	780mm	15 liter	588 kg	780(W) 1350(L) 1240(H)	0~1200RPM	0~300RPM

	SMP-1500M Specification										
Model	Siemens Motor	Schneider Inverter	Hertz	Voltage	Ampere	Work Area	Water Tank	Weight	Dimension (mm)	Rotation	Revolution
SMP-1500M	15HP	20HP	50~60 Hz	220V, 380V 440V, 480V	20 ~ 30A	780mm	15 liter	559 kg	780(W) 1350(L) 1240(H)	0~1200RPM	0~300RPM

	SMP-1000R Specification										
Model	Siemens Motor	Schneider Inverter	Hertz	Voltage	Ampere	Work Area	Water Tank	Weight	Dimension (mm)	Rotation	Revolution
SMP-1000R	10HP	15HP	50~60 Hz	220V, 380V 440V, 480V	15 ~ 30A	675 mm	15 liter	480 kg	675(W) 1300(L) 1200(H)	0~1200RPM	0~300RPM

	SMP-1000M Specification										
Model	Siemens Motor	Schneider Inverter	Hertz	Voltage	Ampere	Work Area	Water Tank	Weight	Dimension (mm)	Rotation	Revolution
SMP-1000M	10HP	15HP	50~60 Hz	220V, 380V 440V, 480V	15 ~ 30A	675 mm	15 liter	452 kg	675(W) 1300(L) 1200(H)	0~1200RPM	0~300RPM



## Setting up & Safety Instructions

Before use, the user must be trained in handling the machine and the hazardous dust.

- 1) Position the grinder in the working area.
- 2) Check the dust cover tightened.
- 3) Check the electric specification 220V single phase, 50Hz.
- 4) Do not use it on wet floor.
- 5) Always wear personal safety equipment such as sturdy non-slip boots, ear protection, dust mask and approval eye protection.
- 6) The machine should not be used in areas where potential for fire or explosions exist.
- 7) Make sure the cord is not pinched in doors, fences or the like.

## NOTICE :

\*Please pay attention to the safety instructions.

\*Please read this instruction manual carefully before using Grinder MPG-24(E)









## Specification

Overall Size	55 x 135 x 110 cm
Grinding Width	550 mm (22 inch)
Weight	106 kg
Power	2.6kw / 3HP
Voltage	220V/50Hz single phase 3HP
Performance	Max 200m2/HR

Part Manual







## Shaft Part

The inner structure of the main belt cover.

\*\* Open only when replacing the belt.



NO.	Part #	Part Name	Specification
1	MPG-24(E)-A01	Bolt	8mm x 20mm
2	MPG-24(E)-A02	Pulley	10 inch
3	MPG-24(E)-A03	Кеу	6mm x 6mm x 35mm
4	MPG-24(E)-A04	Shaft	20 Ø
5	MPG-24(E)-A05	Washer	
6	MPG-24(E)-A06	Bearing	FC-205, UC-205
7	MPG-24(E)-A07	Belt	A-46





## MACHINE PARTS DETAIL



**Clamp for handle adjustment** Up and down the handle for user's Convenience.



Knob for level adjustment Turn Right: Inside down, Outside up Turn Left: Inside up, Outside down

## **Motor Point Part**





Motor Point



1. Loosen the three bolts on the top (side) of the motor



4. Disconnect the Motor point and replace it.



2. Disconnect the wire connected to the motor pointer



3. Loosen the two bolts on the motor pointer.





## Mounting of Grinding Disks

- Take the following safety measures when mounting grinding disks.
- · Remove any weight.
- Disconnect the power supply and the power cable.
- The machine up, and remove the old grinding disks using the special tool. The tools can be also be bolted to the machine if required.
- Caution : The disks may be hot after operating the machine.
- See pictures as following.
- The direction of disc rotation counterclockwise. Therefore, bolting direction to fasten the disc to center shaft should be clock wise.

















\*\* Check cup wheels (moving, not fixed)





## MACHINE OPERATION

## **OPERATION**

The following section describes how to operate and use the grinding machine. The section does not deal with the technical aspects of grinding such as choice of grinding tool etc.

## NOTE :

Only personnel with the requisite training may operate the machine.

It is assumed that the relevant personnel have read the safety regulations.

And that the machine is positioned on the surface intended for grinding, that the surface is not inclined and that the grinding disks are mounted.

## TIP : Right position to start.



\*\* If you start on concrete surface may be damaged for the motor due to the load.

## **MEASURES PERIOD TO START :**

- 1. Inspect the floor carefully and remove any protruding items such as reinforcement bars and bolts, as well as any loose material that could get caught in the machine.
- 2. Set the handle bar in the desired working position.
- 3. Fit the appropriate tools to the machine.
- 4. Mount and check the splash guard.
- 5. Connect the voltage to the terminal on the side of the frequency converter.
- 6. If the floor is dry ground, a dust extractor should be connected and started before staring the machine.

## **START OF MACHINE :**

1. Push the on button.

## MAINTENANCE

Always clean the machine after use. Do not use a pressure washer as this can force water into various components causing damage. We recommend the regular inspected once three month and change if worn.

Contact Bangladesh Payra Construction Chemical Company Limited. Web: <u>www.payraecc.com</u> Email:payraecc@gmail.com Cell:+8801822968816, +8801726684264

