

INSTRUCTION

INSTRUCCIÓN

MODE D'EMPLOI

CONDENSATE NEUTRALIZATION UNIT WITH PUMP UNIDAD DE NEUTRALIZACIÓN DE CONDENSADO CON BOMBA UNITÉ DE NEUTRALISATION DU CONDENSAT AVEC POMPE

Model | Modelo | Modèle #CN1000p

- EN** Contact local authorities to verify the regulation regarding the authorized acidity level of effluent. Also confirm the condensate output with your heating unit supplier.
- ES** Compruebe la reglamentación de la acidéz autorizada hacia el efluente con las autoridades locales. Valide igualmente el caudal de condensado con el proveedor de su unidad de calefacción.
- FR** Vérifiez la réglementation pour l'acidité autorisée à l'effluent auprès des autorités locales. Validez également le débit de condensat chez le fournisseur de votre appareil de chauffage.



Model Modelo Modèle	Length Largo Longueur		Width Ancho Largeur		Height Altura Hauteur		Feet of head Pies de cabeza Pied de tête		Amp.	V	Pump model Modelo de bomba Modèle de pompe	Inlet • Outlet Entrada • Salida Entrée • Sortie
	in	cm	in	cm	in	cm	ft	m				
CN1000p	15.58	40	5	12.7	4 3/4	12	20	6	2.0	20	CSP20	1/2" FNPT • 3/8" I.D.

Sizing • Dimensionamiento • Dimensionnement								Flowrate • Caudal • Débit GPH/LPH					Max flowrate* Caudal máximo* Débit maximal*
1 Section Sección Section				2 Sections Secciones Sections				1'	5'	10'	15'	20'	
MBH	kWh	gal/h	L/h	MBH	kWh	gal/h	L/h						
525	154	2.1	8	1050	308	4.2	16	114/430	108/410	87/330	58/220	20/75	4.2 GPH (16 LPH)

*Verify condensate flowrate on your appliance. In general, 500,000 BTU/hr at 92% efficiency should generate around 1.6 gal/hr

*Verifique el caudal de condensado producido por su aparato. En general, una caldera con una capacidad de 500.000 BTU/h operando a un 92% de eficacia debería generar aproximadamente 1,6 gal/h (aprox. 6 L) de condensado.

*Vérifiez le débit de condensat produit par votre appareil. De façon générale, une chaudière d'une capacité de 500 000 BTU/h à 92% d'efficacité devrait générer environ 1,6 gal/h de condensat.

WARNING

Risk of damage to the heating unit. The AcidiRID unit must be located below the heating unit's drain in order to avoid reflux into the unit.

DO NOT ALLOW the combustion gases to discharge into the AcidiRID unit. All drains must be equipped with a trap in order to keep the combustion gases from escaping. A combustion gas leak could cause injury or death following carbon monoxide poisoning.

The connection between the heating and AcidiRID units must be done in such a way as to ensure that the backflow does not return towards the unit.

ATENCIÓN

El riesgo de daños en el equipo de calentamiento. La unidad AcidiRID debe estar ubicada a un nivel más bajo que el desagüe (drenaje) del calentador para evitar un reflujó dentro del dispositivo.

NO PERMITA que los gases de combustión sean liberados dentro de la unidad AcidiRID. Todos los drenajes de condensado deben estar equipado con una "trampa" para evitar que los gases de combustión se escapen. La fuga de los gases de combustión pueden causar lesiones o incluso la muerte debido a un envenenamiento por monóxido de carbono.

La conexión entre el calentador y la unidad AcidiRID se debe realizar de manera que el condensado no sea entregado al dispositivo.

ATTENTION

Risque de dommage à l'appareil de chauffage. L'unité AcidiRID doit se trouver à un niveau plus bas que le drain de l'appareil de chauffage pour éviter un reflux dans l'appareil.

Ne laissez pas les gaz de combustion se décharger dans l'unité AcidiRID. Tous les drains de condensat doivent être équipés d'un « piège » afin d'éviter que les gaz de combustion ne s'échappent. Une fuite de gaz de combustion peut causer des blessures ou même la mort suite à une intoxication au monoxyde de carbone.

Le branchement entre l'appareil de chauffage et l'unité AcidiRID doit être fait de manière à ce que le condensat ne refole pas vers l'appareil.

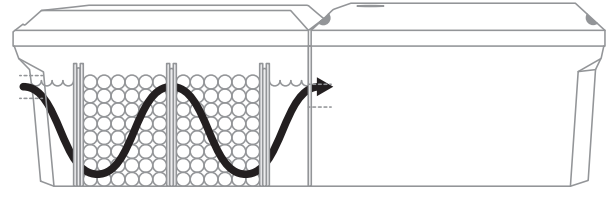


AcidiRID is provided with 3/4" connectors for hard piping (PVC) and flexible hose.

Screw the 3/4" connectors onto the units connection. Connect your heating appliance's condensate drain to the unit's inlet by gluing the hard pipe to the connector or the hose. Repeat the operation with the unit's outlet hose. Do not allow the piping to pass through areas which could be exposed to temperatures below the freezing point.

Each unit is supplied with a media bag capable of treating the condensate equivalent to that of a 525 MBH (154 kWh) unit, approximately 2.1 gallons (8 liters) per hour. To increase AcidiRID's treatment capacity add a media bag (#CSM2) in each section of the unit (maximum 2). Refer to the table to learn the condensate treatment capacities for each section. Additional media bags (#CSM2) are available through AcidiRID retailers.

At the beginning and end of the heating season, verify the acidity of the effluent treated by AcidiRID. Contact local authorities to verify the regulation regarding the authorized acidity level of effluent (drain or septic tank). Replace the media bag (#CSM2) at least once per year, or as soon as the acidity level of the effluent no longer meets local norms.



Instructions #CSNP20

Features:

- Silent running centrifugal pump with 2.2 m (7.2') power cord
- Full ball bearings in drive shaft
- Pump unit encapsulated in a IP65-rated case
- Check valve to prevent back-flow of liquid into the unit
- Overflow safety alarm switch
- Ultra-compact size

CSP20 Specifications

- Electrical spec.: **120V, 60 Hz, 2.0 A**
- Protection class: **IP65**
- Alarm switch: **(NO/NC)**
(potential free) **NC = red, NO = black, COM = white**
- Weight: **1.46 kg / 3.0 lbs**
- Pump Tank capacity: **1.30 L**
- Media tank capacity: **1.40 L**
- Dimensions: **6.7 x 3.1 x 3.9 in / 170 x 80 x 100 mm**
- Pressure hose dia.: **3/8" barb**
- Pump unit of CSP20 can be used in a separate pan.
Maximum fill level: **70 mm (2.5")**

Flowrate • Caudal • Débit GPH/LPH				
1'	5'	10'	15'	20'
114/430	108/410	87/330	58/220	20/75

Installation

1. Carefully unpack the unit, check for damage and make sure that all of the required parts are included. The units are thoroughly tested before packing to insure safe delivery and operation.
2. Choose a mounting location near the air-conditioner or boiler. The unit must be mounted level. And the inlet must be below the lowest drain.
3. The pump should be mounted in a way that the cover and/or the pump unit inside can be removed easily for cleaning purposes.

Connecting the Pipe

1. Connect the discharge line by hand- tighten the cap nut of the check valve. Extend the discharge line straight up from the pump to the highest point, without exceeding the pump maximum discharge height. Please take into consideration the discharge volume/height ratio.
2. From the highest point to the discharge level, the flexible hose must be installed with a downward slope.

Note: Condensates discharged from condensing boilers can contain residual contaminants like soot & unburned hydrocarbons. In these systems, it is essential that the contaminated condensates are treated before being delivered to the pump. Failure to comply with these requirements can cause equipment malfunction.

Wiring

All wiring must be done according to local and/or applicable national codes.

1. Connect the pump directly in the wall outlet.
2. Overflow alarm switch: The pump model CSP20 is equipped with an overflow alarm switch (NO/NC) which should be connected. The alarm contact will be activated with a 5 s time delay.

Testing

All wiring must be done according to local and/or applicable national codes.

1. Connect the main power cord of the pump. Manually fill the tank until the float switch turns the pump on.
2. To test the overflow alarm circuit

- a) Kink the tube coming from the pump discharge so it cannot pump out.
- b) Pour water into the pump reservoir, filling it completely on the pump side.
- c) As the water level nears the top of the unit the overflow alarm switch should activate.
- d) Un-kink the tube and allow the pump to empty the tank. As the water level goes down the overflow safety switch will deactivate and the appliance will reset again (or the alarm will reset).

Maintenance

WARNING! Before attempting any maintenance on the unit, disconnect the power cord from the power supply to avoid the risk of electrical shock.

ATTENTION: The overflow alarm circuit can still be under power.

If the pump does not perform as stated in above tests, remove the lid cover of the unit and take the pump off. If the float binds, it may be dirty or damaged.

The motor itself does not need any maintenance so do not attempt any repairs. Also, never open the drive unit of the pump because breaking the seal will invalidate the warranty. However, the tank and float mechanism will need to be cleaned once a year. The tank, pump and the floats should be cleaned with mild detergent using a damp cloth. Reassemble the pump in reverse order.

Cleaning the check valve and verify its operation

1. Remove the discharge line from the check valve.
2. Use a SW 20 (13/16") wrench to remove the check valve from the drive unit.
3. Visually check the valve for obstructions. If damaged, replace.
4. To re-install the check valve, hands tighten it to the pump. Then, tighten 1/2-turn further with a wrench. Be careful not to over-tighten as this may distort the O-ring seal under the check valve.

Replacement items

The discharge nipple with integrated check valve is available for replacement.

Model	Item-number	Description
CN1000p	CSCV	Check value



Centrotherm

Troubleshooting

If the UNIT does not function properly, refer to the following:

1. To test the overflow alarm circuit

- a) Check the power supply
- b) Check the appliance to see if condensation is actually being generated
- c) Check to make sure the pump float mechanism moves freely and clicks the activation switch when moved up and down
- d) Check the drain line(s) into the unit for obstructions. **Note: If these lines are clogged and remain clogged, the unit may eventually be damaged.**

2. Pump makes loud noise when running

Check the tank for debris and clean when necessary. Refer to the maintenance section for cleaning instructions.

3. Unit runs but does not pump liquid out

- a) Check the float mechanism to be sure that it is not stuck in the up position.
- b) Check the height of the discharge tubing to be sure it does not exceed the allowed head Operating point start ± 34 mm, stop ± 13 mm. Alarm 40 mm.
- c) Check the discharge tube for obstructions and clear if needed.
- d) Check the check valve for obstructions. Refer to the maintenance section for cleaning instructions.

4. Liquid drains back into the unit from the discharge line

- a) Check the valve as it may have debris in it. Refer to the maintenance section for cleaning instructions
- b) If the discharge line is plumbed so the highest point is less than 1 m above the pump, the check valve may allow liquid to drain out of the line. This is normal and will not damage the pump.

5. Liquid leaks from around the check valve

- a) If the check valve is too tight or too loose it may leak around the O-ring. Check that the valve is hand tight, and then tighten an addition $\frac{1}{2}$ turn with a wrench.
- b) If the O-ring under the check valve is damaged, replace with a new one or purchase a replacement check valve, which includes a O-ring.

Warranty

ONE (1) YEAR LIMITED WARRANTY FOR MODEL CSNP20 FROM THE DATE OF PURCHASE, OR SIX (6) MONTHS AFTER THE DATE OF MANUFACTURE.

Centrotherm Solutions Inc. warrants to the original purchaser ONLY that the products subject to this sale, are free of material and workmanship defects, and conform to the specifications published by Centrotherm Solutions Inc.

This warranty is only valid if the product is installed and used under normal working conditions, and for the purpose for which it was intended, given the terms and conditions listed below. If the buyer does not provide protective storage, does not install or maintain the equipment according to manufacturer's instructions, this warranty will become NULL and VOID. In the event that the buyer discovers a material defect or notices malfunctioning on the products, they must immediately notify the installer/distributor/store from which the product was purchased, who will, in turn, notify Centrotherm Solutions Inc. of the claim. Notifications for product malfunctions will not be received by Centrotherm Solutions Inc. past the timeframe given for the warranty, which is determined, based on the date the product was manufactured.

If requested by the manufacturer, prior to attempting any repairs, defective products or parts thereof must be promptly returned to one of the manufacturer's warehouses, or sent to an authorized service representative, as indicated by the manufacturer. The manufacturer accepts no responsibility for loss or damage to the product(s) while in transit, nor will any warranty claim be considered unless the returned goods are received in the exact condition they were in prior to shipping. Claims for damage due to shipping are the sole responsibility of the customer and must be resolved by the customer directly with the shipping carrier. Repaired or replacement products will be shipped to customer at FOB factory terms. The manufacturer warrants replacement parts for ninety (90) days or for the remainder of the warranty of the product that was repaired or replaced.

If a claim is deemed valid, the manufacturer's sole obligation under warranty shall be, at their own discretion, to repair or replace the defective product. NO cash refunds will be given. Centrotherm Solutions Inc. reserves the right to correct the malfunctioning of the product by using new or used replacement parts. Such repairs will be performed at Centrotherm Solutions Inc.'s expense. Centrotherm Solutions Inc. will NOT accept any claims from the customer for labour costs associated with the removal or reinstallation of the product and/or part thereof. No claims will be accepted for returned items which show obvious signs of repairs, alterations, and/or other modifications (to the product or any of its parts thereof) effected without first obtaining written authorization from Centrotherm Solutions Inc. In the event that Centrotherm Solutions Inc. is unable to repair the product, Centrotherm Solutions Inc. will provide the buyer with a replacement product. While replacing parts or replacing the product itself, Centrotherm Solutions Inc. reserves the right to make changes in the design, construction or materials if it is deemed necessary to replace defective products with new models of the same equipment and/or upgrade the parts of any product judged to be defective.

Under the terms of this warranty, in no event shall the manufacturer be held responsible or liable for:

1. Consecutive, indirect or particular loss or damages. Such damages include, but are not limited to, loss of profits, loss of capital, loss of revenue or savings, loss resulting from the non-use of the product or of associated equipment, downtime, cost of substitute equipment, facilities or services, injuries, property damages or any claims of third parties (including the customer). Some states/provinces do not allow limitations or exclusions of indirect or consecutive damages; therefore this clause may not be applicable in certain cases.
2. Damages, defects or malfunctioning caused by a failure to install and maintain the product in accordance with the printed instructions that were included with the product.
3. Malfunction or damages due to abnormal conditions of use, accidents, mishandling, neglect or misuse of the product (i.e. using the product for purposes other than for which it was intended).
4. Loss, damage and/or labour costs incurred as a result of the improper installation or the installation of defective parts or inadequate repairs/service by others, using unauthorized attachments or modifications.
5. Damage caused by (including but not limited to) sand or abrasive materials, buildup of chemical products, mud, oily residues, acids, corrosion, mishandling or improper installation.
6. Damage caused by natural disasters such as fire, wind, earthquakes, and lightning.
7. Parts, components or products not manufactured by Centrotherm Solutions Inc. but used in conjunction with the products that are subject of this sale.
8. Any abuse or misuse by the customer.

All repairs and/or services performed by manufacturer for reasons other than those covered under this warranty will be charged according to the manufacturer's current equipment, parts and service fees.

Returned products or parts will NOT be accepted if returned to manufacturer without obtaining approval prior to shipment.

The present warranty is the sole warranty of the manufacturer. Any other warranties express or implied in law or in fact, including but not limited to, warranties of merchantability or fitness for particular purpose, are hereby specifically disclaimed.

Some states/provinces do not allow limitations on the duration of implied warranties; therefore, this clause may not be applicable to you. This warranty extends ONLY to the original purchaser and is therefore not transferable.

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