



1

## WHY HYBRID HOT?

---

Noritz has offered plumbing diagrams showing the use of a storage tank and tankless for many years. Now we offer the complete package ready to install.

2

# HH HYBRID HOT SERIES



The Hybrid Hot Series by Noritz brings together the storage of a standard tank and the power and efficiency of a tankless to take on any commercial hot water demand.

Combined to meet the hot water requirements of businesses, the Hybrid Hot Series by Noritz utilizes the latest in tankless and tank storage technologies to create a powerful and reliable solution for businessowners. The Hybrid Hot also offers common venting for multiple units to ensure endless hot water is always available.



### FASTER HOT WATER RECOVERY

The Hybrid Hot offers the best BTU possible at the quickest rate, providing businesses with energy savings and more.



### THE BEST OF TANK AND TANKLESS

With an endless supply of hot water, lower pressure drop, and no limitation of hot water flow rate, the Hybrid Hot Series by Noritz combines features of both technologies to provide the most reliable hot water delivery system to date for commercial applications.



### CONTINUOUS HOT WATER DELIVERY

If your tank suddenly runs out of hot water, no need to worry. The Hybrid Hot Series by Noritz can continue to provide hot water using the paired NCC199CDV tankless even after your stored supply is depleted\*. (\*Hot water capabilities are limited)



### CEMENT LINING

With no anode rod and a greater warranty than other tanks on the market, our tank also features cement lining for superior corrosion resistance.



Assembled in the USA



3

## APPLICATIONS

Best used in short periods of high demand applications but applicable in any kind of commercial application.

- Commercial dish machines
- Laundromats

Case studies being conducted in Santa Paula Middle School and Rowland Heights Boiling Crab



Rowland Heights Boiling Crab

4

# HH HYBRID HOT SERIES RECOVERY & SPECS



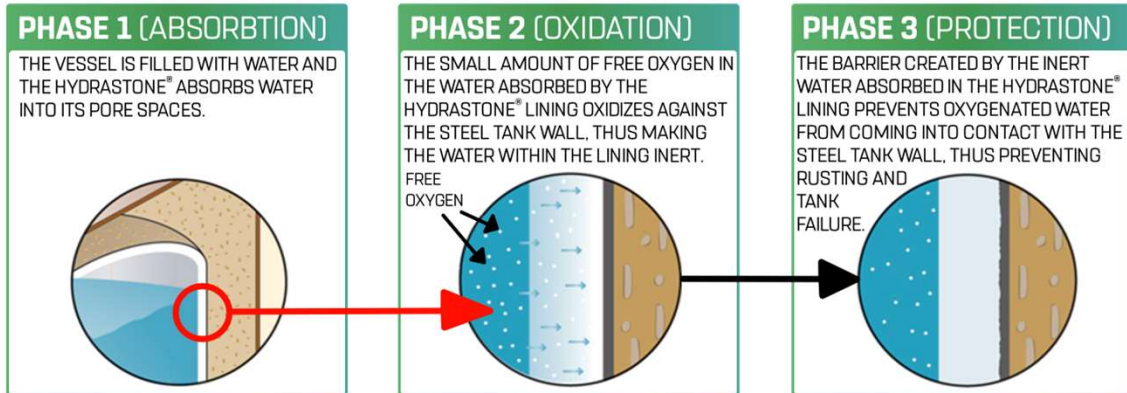
**NORITZ**

Recovery GPH Temperature Rise	
Tank (Gallon)	119
°F	GPH
30 F	780
40 F	585
50 F	468
60 F	390
70 F	334
80 F	292
90 F	260
100 F	234
110 F	213
120 F	195
130 F	180
140 F	168

Installation Location		Indoor
Weight		536 lbs (Product Weight) 643 lbs (Shipping Weight)
Working Pressure	Water	15 - 150 psi
	Gas	NG: 3.5 - 10.5" LP: 8.0 - 13.0"
Connection Size	Cold Water	NPT 1 1/2"
	Hot Water	NPT 1 1/2"
	Return (Recirc)	NPT 3/4"
	Gas	NPT 3/4"
Vent	Type	DV / SV
	Size/Max Length	2"/75' 3"/150' 4"/65'
	Common Vent	Yes (Up to 12 Units)
Dimensions	H x W x D	67 3/4" x 28" x 43.5"
First Hour Rating		317 GPH
Capacity at 100° F Rise		234 GPH
CDV Pro Efficiency		0.98 UEF
Power Supply		120 VAC (60Hz)
Tank Capacity		119 Gallon (Cement Lined)
Tankless Capacity		12,800 - 199,900 BTU/h
Temperature Settings		100 - 185° F (37 - 85° C)

5

# HH HYBRID HOT SERIES HYDRASTONE® LINING



**NORITZ**

6

# CEMENT LINED VS. GLASS LINED

## Hydrastone Lining

A seamless ½" thick lining is impervious to adverse water conditions and is proven to be the most effective method of preventing tank failure due to corrosion. Hydrastone lining absorbs and traps water, which then loses its oxygen and becomes inert, thus preventing tank corrosion.

## Premium Insulation

2" thick polyurethane foam combined with heat-retaining Hydrastone lining allows less than 0.3°F heat loss per hour.

0.005" Glass lined storage tanks require an anode rod to attract the corrosive minerals that attack the water heater



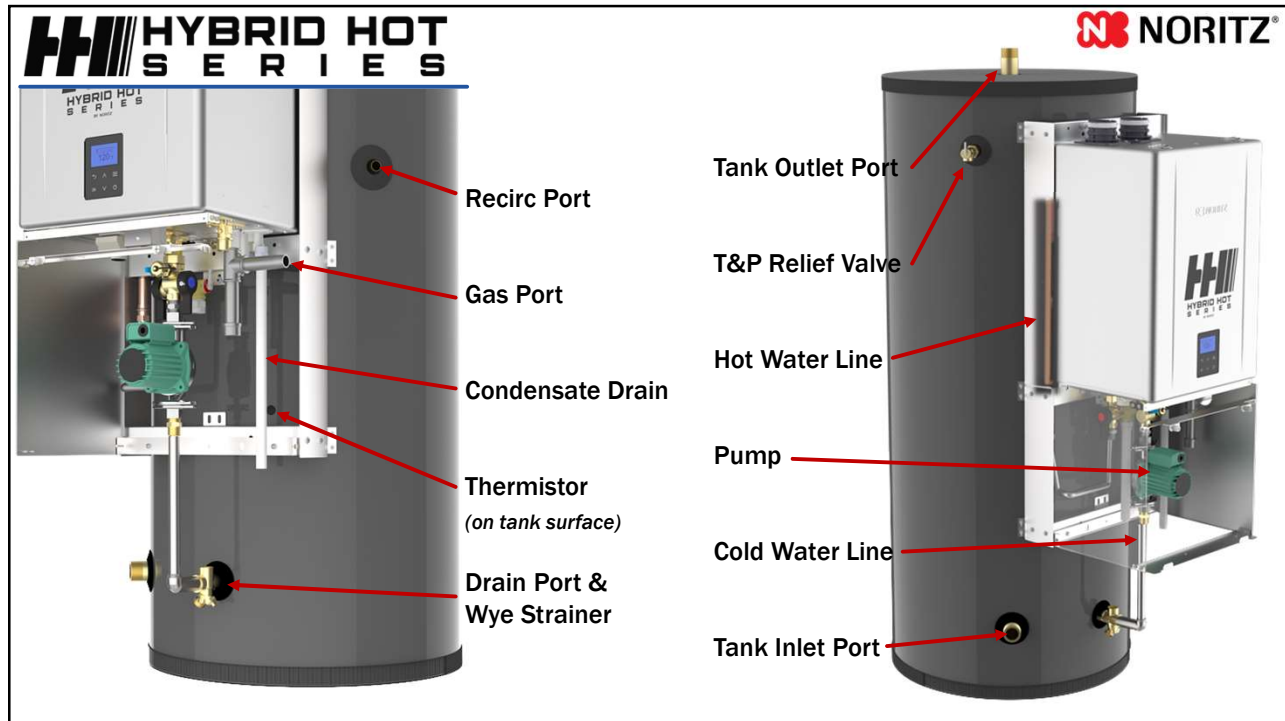
7

# HYBRID HOT SERIES BASIC OPERATION

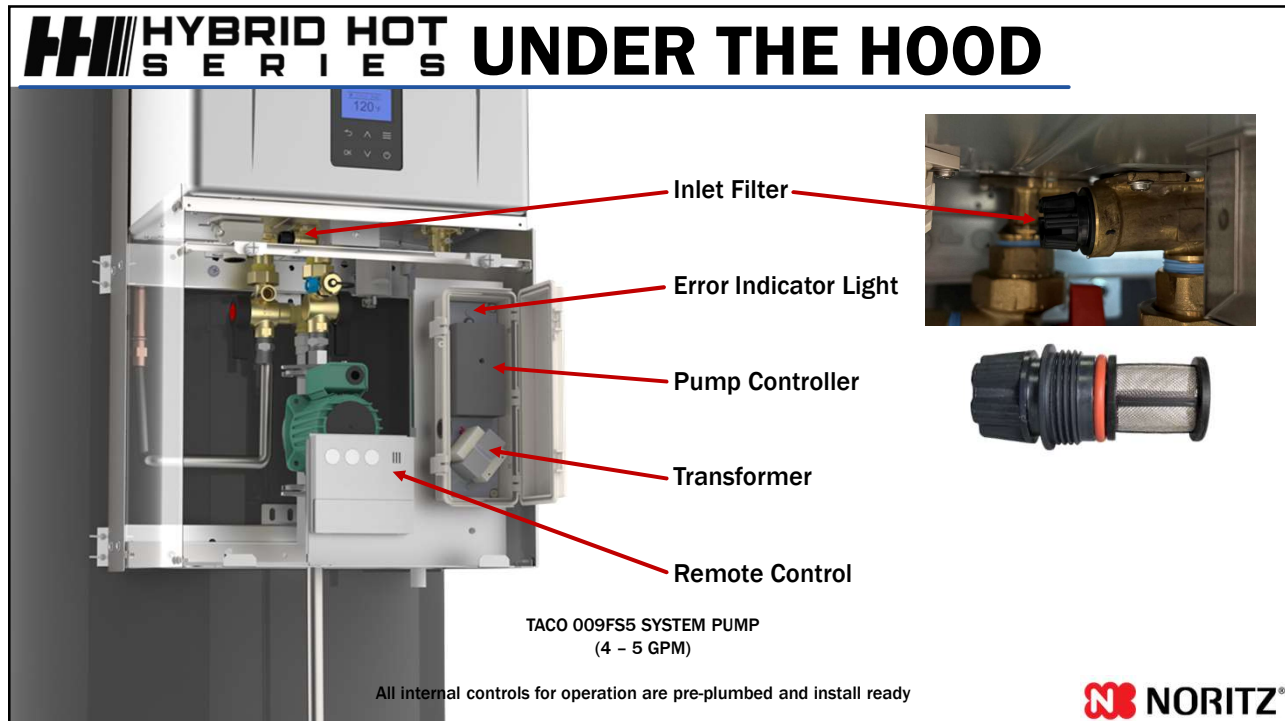
Water connection locations help to stratify the water temperatures in the tank keeping the upper tank full of the hottest water. Provides the best energy efficient supply of hot water. This extends the 70% rule associated with tank heaters



8

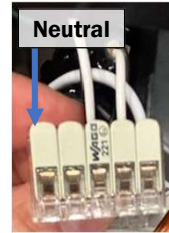
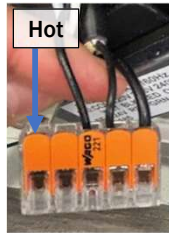


9



10

# HH HYBRID HOT SERIES ELECTRICAL WIRING



The Hybrid Hot doesn't come with a power cord. The contractor will need to purchase and wire

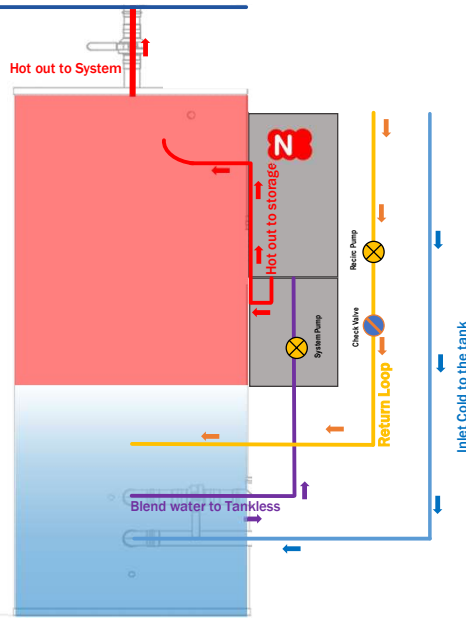
### ■ LED Indications (Pump controller)

- [Green]
- Solid : Standby (Normal)
  - Blinking : Operating (pump is operating)
- [Red]
- 1 blink : Thermistor Error
  - 2 blinks : Communication Error
  - 3 blinks : Pump Operation Error
  - 4 blinks : Water Heater Error
- (e.g. 3 blinks [pump error])



11

# HH HYBRID HOT SERIES



12

# HHI HYBRID HOT WATER SERIES COMMON VENTING

When common venting Hybrid Hot Water heaters, a system controller (SC-401-6M or 12M) must be installed (purchased separately).

Multi unit systems require pressure balancing of the piping system (Piping in Parallel or first in last out).

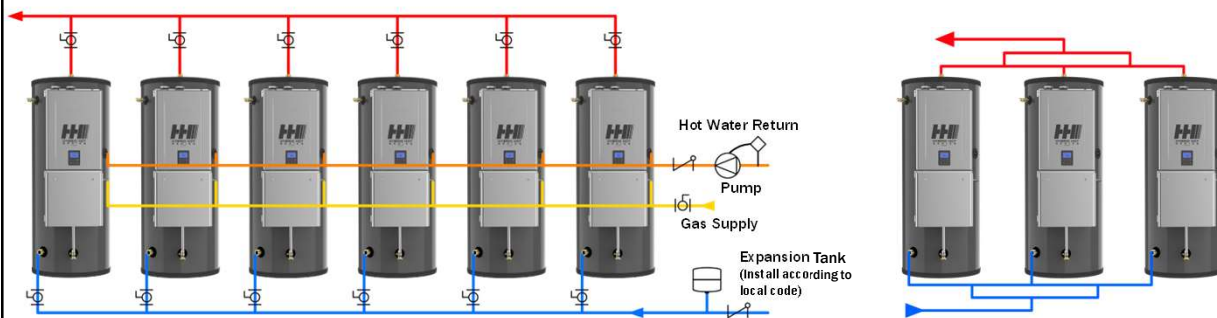
System bypass controls are set to stay open to 160°F



13

# HHI HYBRID HOT WATER SERIES MULTIPLE PIPING

WATER PIPING DIAGRAM. PIPING CAN BE EITHER FIRST IN, LAST OUT OR IN PARALLEL



14

# WARRANTY REGISTRATION

- Tankless serial number is used for registration
- Warranty is registered via PROCard App or Noritz website
- Our system recognizes that the NCC199CDV used is part of a Hybrid Hot



15

# SERVICE & MAINTENANCE

- Tankless only cares about refilling the storage tank, that's its primary operation
- Tankless can be isolated from the tank to provide hot water while the tankless is serviced
- Tankless is taking water from the bottom of the tank so hard water sediment can accumulate at the inlet filter
- Tank should be flushed of hard water buildup periodically
- Hard water should be treated per guidelines in the manual
- Parts Available:
  - All NCC199CDV Parts
  - Pump
  - Controls
  - Isolation Valves
  - Gaskets

Type of Water	Hardness Level	Treatment Device*	Flushing Frequency
			Commercial Use
Soft	0-1 gpg (0-17 mg/L)	None	None
Slightly Hard	1-3 gpg (17-51 mg/L)		None
Moderately Hard	3-7 gpg (51-120 mg/L)	ScaleShield or Water Softener	Once per year**
Hard	7-10 gpg (120-171 mg/L)		Once per year**
Very Hard	10-12 gpg (171-200 mg/L)		Twice per year**
Extremely Hard	>12 gpg (200 mg/L)		Twice per year**

\*When selecting a treatment measure, consult with the device's specifications and installation manual for guidelines and limitations. Not all devices are compatible with every water supply. A water test may be required.

\*\*Flushing frequency requirement based upon no treatment installed.



16

Hybrid Hot install at the State of Washington  
Facilities complex, Whidbey Island, Washington



One of two Hybrid Hot installs at Farmer Boys  
Burgers, So. Cal



17

**THANK YOU**

18