



## DIRECT/INDIRECT Hot Water Cylinders

135L, 185L, 250L, 300L, 500L, 1000L



DESIGNED SMART IN NEW ZEALAND,  
BUILT TOUGH FOR NEW ZEALAND CONDITIONS.

**WATERWARE**

[waterware.co.nz](http://waterware.co.nz)

# PROTANK+

## FEATURES

# PROTANK+

## MODEL RANGE

### FAST INSTALL

Available with or without the Caleffi 'direct mount mono-block' combo set which can save up to 50% in installation time.



**INSULATION CLAM\***  
Reduces heat loss

### HIGH FLOW

20mm or 25mm high flow ports according to tank size.

### WIDE RANGE

Domestic - 135L, 185L, 250L, 300L, 500L  
Commercial - 500L, 1000L

### LONG LASTING

Manufactured from premium grade 2205 Duplex (high corrosion resistance) stainless steel with a 20 year limited warranty (refer warranty terms and conditions for details).

### POWERFUL

Dual elements on models 250L and over.

### SPACE SAVING

Top entry and exit ports for easy reach and narrow installation spaces.

### RING-MAIN

Return port for ring-main applications.

### CLEAN & TIDY

A concealed 2205 Duplex stainless steel dip tube takes the cold to the bottom of the tank.

### TPR INSULATION COVER



### EASY WASTE CONNECTION

TPR and cold water expansion valve offset for easy waste connection

### HANDSOME

Smooth white powder coated finish.

### COLD WATER EXPANSION VALVE



### STRAPS AND BLOCKS\*

Safely secures tank



### TRAY AND TUNDISH\*

In case of cylinder overflow  
\*Only available on residential tanks.

## PROTANK+ HOT WATER CYLINDERS ARE DESIGNED FOR INDOOR INSTALLATION MAINS PRESSURE DOMESTIC AND COMMERCIAL HOT WATER SYSTEMS.

Protank+ has been developed to meet the needs of those home owners wanting a high capacity, high pressure hot water system that is going to last.

The internal tank and fittings are crafted from the highest possible spec 'Duplex' 2205 stainless steel and performance matched to Caleffi's latest high flow valve set.

Includes Valve Kit		Cylinder Only		Description	Height x Ø
<b>RESIDENTIAL</b>					
Direct	Indirect	Direct	Indirect		
PTPSC135	N/A	PTPS135	N/A	135L, 3kW	<b>1400 x 475</b>
PTPSC185	PTPSC185I	PTPS185	PTPS185I	185L, 3kW	<b>1850 x 475</b>
PTPSC185-600	N/A	PTPS185C-600	N/A	185L, 3kW	<b>1112 x 600</b>
PTPSC250	PTPSC250I	PTPS250	PTPS250I	250L, 2 x 3kW	<b>1400 x 600</b>
PTPSC300	PTPSC300I	PTPS300	PTPS300I	300L, 2 x 3kW	<b>1600 x 600</b>
N/A	PTPSC500I	N/A	PTPS500I	500L, 3kW	<b>1900 x 700</b>
<b>COMMERCIAL</b>					
N/A		PTPS500 (direct only)		500L	<b>1900 x 700</b>
N/A		PTPS1000		1000L	<b>2350 x 900</b>
<b>KITS</b>					
Commercial Installation kit		PTPIK500C*		135L & 185L	N/A
Residential Installation kit		PTPIK500R*		135L & 185L	N/A
Residential Installation kit		PTPIK600R*		185L, 250, 300L	N/A
Insulation clam		TV520150I		135L & 185K	N/A

### Models with valve set include:

- Protank+ hot water cylinder
- Caleffi 'direct mount mono-block' combo set
- Caleffi TPR valve
- Heatrod element(s) and thermostat

### Models without valve set include:

- Protank+ hot water cylinder
- Caleffi TPR valve
- Heatrod element(s) and thermostat

\*Optional installation kit includes: tray, tundish, straps and blocks and insulation clam.



# PROTANK+

DIRECT MOUNT MONO-BLOCK COMBO SET

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CALEFFI

DIRECT MOUNT MONO-BLOCK COMBO SET



## CALEFFI DIRECT MOUNT COMBO SET

COMBO2015PRO - Caleffi Combo Protank+ kit, 135D,185D, 185i, 250D,300D

COMBO2020PRO - Caleffi Combo Protank+ kit, 250i, 300i, 500i

Protank+'s are available with or without the Caleffi 'direct mount mono-block' combo set which can save up to 50% in installation time when compared to installing a traditional hot water cylinder with 3rd party valves and components. It connects to the cold and hot connections via Caleffi's fail safe o-ring sealed union connections.

## THE CALEFFI DIRECT MOUNT COMBO SETS INCLUDE EVERY PRIMARY VALVE REQUIRED TO COMPLETE AN INSTALLATION:

- 1 x mono-block tempering inlet valve and isolators
- 1 x adjustable pressure limiting valve with strainer
- 1 x cold water expansion valve
- 1 x ball valve



TV520150 20mm  
TV520160 25mm



PRV20 20mm  
PR535061



BV20M 20mm  
BV25M 25mm



TPR309470  
PTPTPC01 Insulation Cover



DSV312407 15mm

## RECIRCULATING SYSTEMS

The mono-block manifold has a blanking cap which when removed acts as a return port for a recirculating ring main. Contact us for ring main set up or design advice.

## DIRECT MOUNTING OF THE TEMPERING VALVE

Notwithstanding acceptable methods detailed in G12, the manufacturer Caleffi have specifically engineered this tempering control valve to directly mount onto the hot water cylinder with no minimum pipe length isolation requirement as an alternative method of achieving compliance.



# PROTANK+

## SPECIFICATIONS

General Specification	100L-300L	500L*	1000L*
Manufactured by	SST	SST	SST
Country of origin	China	China	China
<b>Pressure Ratings</b>			
TPR Setting	700 kPa	700 kPa	700 kPa
Cold water expansion setting	600 kPa	600 kPa	600 kPa
Maximum supply setting	500 kPa	850 kPa	850 kPa
Factory supply set point	300 kPa	600 kPa	600 kPa
<b>Electrical</b>			
	<b>Direct and Indirect</b>	<b>Indirect Only</b>	
Cable / Sheath size	3x1.5mm / 8mm	3x1.5mm / 8mm	
Terminals	Screw Type, 4mm	Screw Type, 4mm	
Thermostat supplier	Enerson	Enerson	
Thermostat model	59T+66T	59T+66T	
Thermostat approval number	E19279	E19279	
Thermostat set point range	49-82 °C	49-82 °C	
Thermostat factory set point	70 °C	70 °C	
Thermal cutout set point	93 °C	93 °C	
Thermal cutout reset	Manual	Manual	
Heating element supplier	Backer	Backer	
Heating element mount	G1" Screw Thread	G1" Screw Thread	
Heating element sheath material	Incoloy 840	Incoloy 840	
Heating element resistance	16.14 Ω ±7.5%	16.14 Ω ±7.5%	
Heating element power density	12.1	12.1	
<b>Shell Construction</b>			
Shell type	Stainless Steel	Stainless Steel	Stainless Steel
Shell material	2205 Duplex SS	2205 Duplex SS	2205 Duplex SS
Thickness	1 mm	1.5 mm	2.0 mm
Circumferential joint	Butt Weld	Butt Weld	Butt Weld
Longitudinal joint	Butt Weld	Butt Weld	Butt Weld
<b>Case Construction</b>			
Wall material	Painted Galvanized steel	Painted Galvanized steel	SUS304 Stainless Steel
Wall thickness	0.5 mm	0.5 mm	0.8 mm
<b>Thermal Insulation</b>			
Insulation specification	Polyurethane	Polyurethane	Polyurethane
Wall thickness	50 mm	50 mm	50 mm
Base thickness	50 mm	50 mm	50 mm
Top thickness	50 mm	50 mm	50 mm

\*The 500L and 1000L Direct Hot Water Cylinders are used for high demand hot water production using either the indirect high output with the Habanero heat exchanger module, or as a standalone buffer tank for direct water heaters.

# PROTANK+

## TECHNICAL SPECIFICATIONS

### DIRECT

Capacity	135L	185L	185L	250L	300L	500L	1000L
Inlet / Outlet ports	20mm	20mm	20mm	20mm	20mm	50mm	50mm
TPR / CWE ports	15mm	15mm	15mm	15mm	15mm	20mm	20mm
Solar ports (qty x Ø)	None	None	None	None	None	None	None
Dry stat pockets (qty x Ø)	None	None	None	None	None	None	None
Heating element	3KW	3KW	3KW	2 x 3KW	2 x 3KW	None	None
Overall (Height x Ø)	1399*470	1818*470	1122*600	1372*600	1589*600	1857*700	2340*900
Internal shell (Ø)	370mm	370mm	500mm	500mm	500mm	600mm	800mm

Scan the QR Code for the Direct PROTANK+ range you are looking for more details and technical information



### INDIRECT

Capacity	185L	250L	300L	500L
Inlet / Outlet ports	20mm	25mm	25mm	25mm
TPR / CWE ports	15mm	15mm	15mm	15mm
Solar ports (qty x Ø)	None	None	None	None
Dry stat pockets (qty x Ø)	None	None	None	None
Heating element	3KW	3KW	3KW	3KW
Overall (Height x Ø)	1818*470	1372*600	1589*600	1840*700
Internal shell (Ø)	370mm	500mm	500mm	600mm

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# PROTANK+

## ELECTRIC HEATPUMP COMBINATION

### RITTER HOT WATER

#### CE, CB certified, R134a refrigerant, COP 4.6

Ritter Hot Water is a reliable, safe, and energy-saving domestic hot water generator suitable for numerous applications within residential and light commercial industries.

#### APPLICATION

The Ritter direct hot water heat pump can connect to the Protank+, or any suitable domestic hot water cylinder with auxiliary ports, to provide high performance hot water production for showers and washing in residential applications, or light commercial requirements in restaurants, salons and even pre-heating of wash-down water on farms.

### OPERATION RANGE

The Ritter Hot Water unit can maintain stable operation in a wide range of ambient temperatures from -7°C to 45°C, providing efficient operation all year long and in a wide range of geographical locations.

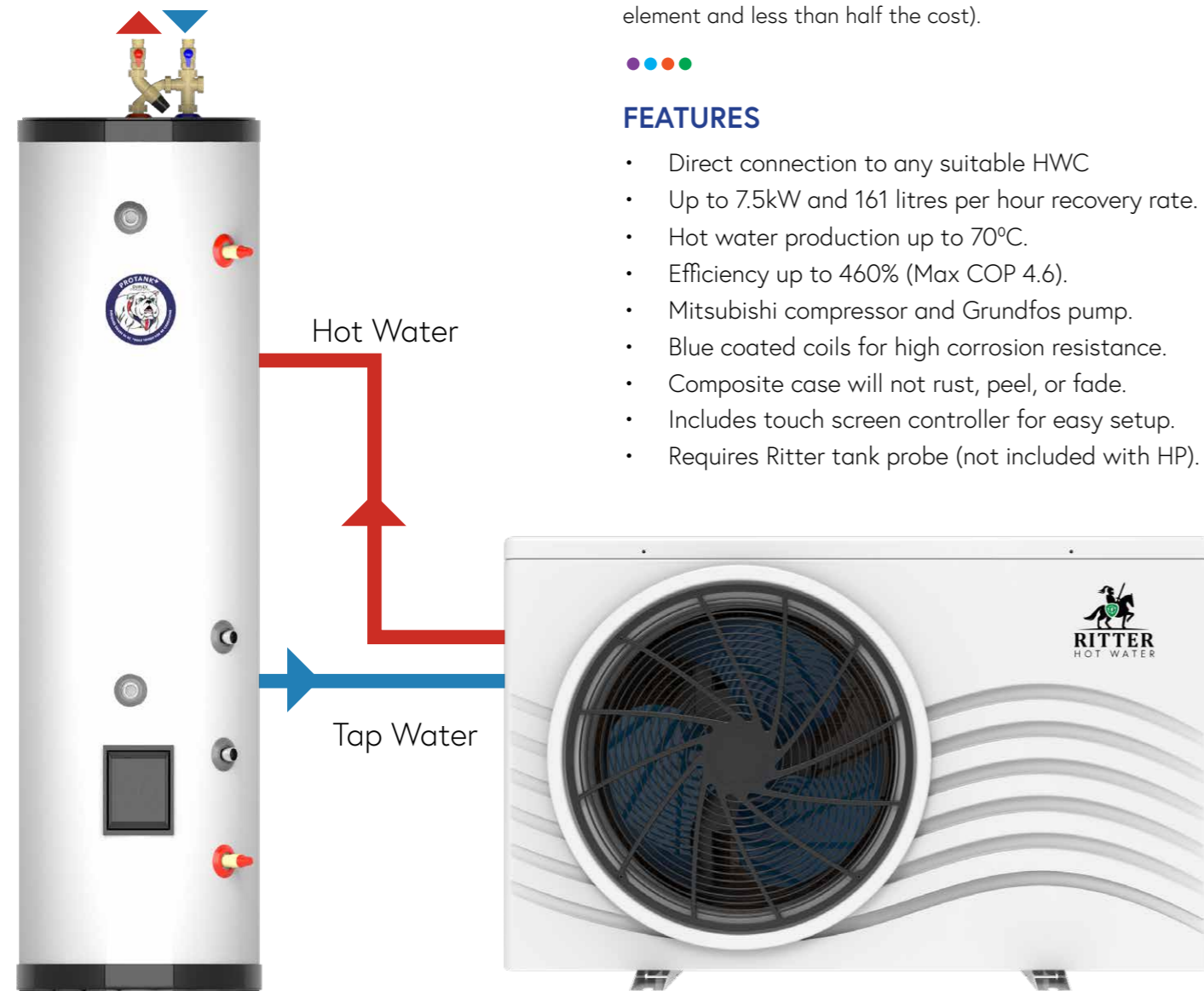
### HIGH-TEMPERATURE HOT WATER SUPPLY

With up to 7.5kW of recovery power available, and 70°C hot water temperature, the Ritter unit kills all bacteria in the storage tank to ensure the health of your family without the need or cost of element boosting. The Ritter will heat the Protank+ 185L from cold to 60°C in less than 100 minutes (around half the time of a 3kW electric element and less than half the cost).



### FEATURES

- Direct connection to any suitable HWC
- Up to 7.5kW and 161 litres per hour recovery rate.
- Hot water production up to 70°C.
- Efficiency up to 460% (Max COP 4.6).
- Mitsubishi compressor and Grundfos pump.
- Blue coated coils for high corrosion resistance.
- Composite case will not rust, peel, or fade.
- Includes touch screen controller for easy setup.
- Requires Ritter tank probe (not included with HP).



# PROTANK+

## SPECIFICATIONS & WARRANTY

### Protank+ 20 YEAR LIMITED WARRANTY

All terms of the warranty, subject to the conditions below, are effective from date of purchase from Waterware Services. If an invoice is not available, the serial number or date of production prevails. If neither can be located, date of install needs to be provided.

#### Single Residential Domestic Warranty

A single residential domestic installation is defined as an installation where the hot water cylinder with a factory set thermostat delivers hot water to a privately owned single family residential dwelling which is not used for commercial purposes.

#### Protank+ Excluding Valves and Element

10 YEARS FREE PARTS AND LABOUR costs to repair or replace cylinder if it fails due to manufacturing defect. Followed by;

10 YEARS \*PRO-RATA PARTS ONLY reducing costs (excluding labour) according to the below formula, to replace or repair the cylinder if it fails due to manufacturing defect.

\*Pro-Rata Formula = Original purchase price x remaining warranty in years ÷ total warranty period of the cylinder.

#### Caleffi Valves (excluding any 3rd party valves)

5 YEARS FREE PARTS and LABOUR costs to replace or repair any valve that fails due to manufacturing defect.

#### Protank+ Element Only;

24 MONTHS FREE PARTS and LABOUR costs to replace or repair the element if it fails due to manufacturing defect.

#### Commercial Applications Warranty

Any installation not considered to be a single residential domestic type.

Protank+ and Caleffi Valves Excluding Element

5 YEARS FREE PARTS and LABOUR costs to replace or repair the cylinder or valves if failure is due to a manufacturing defect.

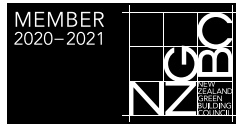
#### Protank+ Element Only;

12 MONTHS FREE PARTS and LABOUR costs to replace or repair the element if it fails due to manufacturing defect.

**Refer to full terms, conditions and exclusions in the installation/owners manual**



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# WATERWARE

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