

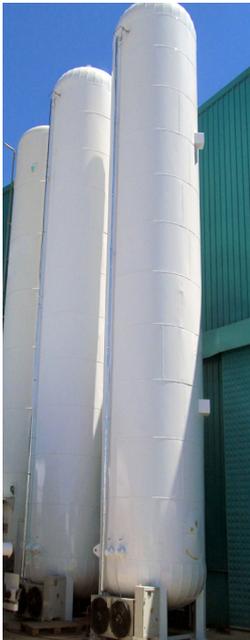
# CO<sub>2</sub> Storage

## ASCO CO<sub>2</sub> Storage Tanks Polyurethane Insulated



**ASCO** polyurethane insulated (PU) Storage Tanks are constructed in various standard sizes, ranging from 10t to 100t capacity of liquid carbon dioxide. Each unit is compactly designed, simple and safe to operate and easily installed.

The **ASCO** pressure vessels are designed and built per PED and AD2000, maximum allowable working pressure is 24 bar (348 psi). Tanks are supplied complete with all pipework in stainless steel, valves and safety devices (as described in our tank flow diagram).



**ASCO** PU insulated CO<sub>2</sub> Storage Tanks are available as vertical and horizontal version.

Insulated, completely pre-wired electrical system with control cabinet, level-indicator media6 or loadcell, pressure build-up heater, safety devices, valves, pipework. All our systems are completely pretested before shipment.

Capacities given is based on a 95 % full volume. Vessels are insulated with 150 to 200 mm (5.91 to 7.87 in) polyurethane foam, covered by an aluminium sheet and are primed.

The tank content can be shown either by differential pressure indicator and pressure gauge or load cells.

### Specifications

Pressure vessel:	Made of carbon steel, 24 bar (348 psi) design pressure
Insulation:	PU insulated, 150-200 mm (6-8 in), covered by aluminium sheet
Piping:	Stainless steel
Contents gauge:	Differential pressure measuring device (outlet 4-20 mA)
Filling connections:	According to flow diagram
Approval:	ED 2014/68/EU and AD2000

ASCO reserves the right to modify all specifications without prior notice.

## PU insulated ASCO CO<sub>2</sub> Storage Tanks: Overview standard capacities

### Available standard capacities vertical PU insulated ASCO CO<sub>2</sub> Storage Tanks:

Tank capacity (liquid CO <sub>2</sub> in kg) (lb)	Dimensions (height × diameter in mm) (in)	approx. empty weight in kg (lb)	part no.
9'800 (21'605)	5'250 × 1'800 (207 x 71)	4'800 (10'582)	4046602
14'700 (32'408)	7'250 × 1'800 (285 x 71)	5'300 (11'684)	4046603
17'650 (38'912)	8'750 × 1'800 (344 x 71)	6'500 (14'330)	4046604
22'550 (49'714)	10'250 × 1'800 (404 x 71)	7'800 (17'196)	4046605
29'500 (65'036)	8'250 × 2'400 (325 x 94)	9'500 (20'944)	4046606
39'150 (86'311)	9'750 × 2'400 (384 x 94)	11'200 (24'692)	4046607
48'900 (101'780)	12'550 × 2'400 (494 x 94)	13'600 (29'983)	4046608
58'700 (129'411)	14'550 × 2'400 (573 x 94)	14'850 (32'739)	4046609
97'850 (215'722)	14'000 × 3'200 (55 x 126)	25'800 (56'879)	4046610

### Available standard capacities horizontal PU insulated ASCO CO<sub>2</sub> Storage Tanks:

Tank capacity (liquid CO <sub>2</sub> in kg) (lb)	Dimensions (length × diameter in mm) (in)	approx. empty weight in kg (lb)	part no.
9'800 (21'605)	5'805 × 1'900 (229 x 75)	4'000 (8'818)	4046592
14'700(32'408)	7'305 × 1'900 (288 x 73)	5'000 (11'023)	4046593
17'650 (17'650)	8'800 × 1'900 (346 x 73)	6'000 (13'228)	4046594
22'550 (49'714)	10'300 × 1'900 (406 x 73)	7'000 (15'432)	4046595
29'500 (65'036)	11'800 × 1'900 (465 x 73)	8'600 (18'960)	4046596
39'150 (86'311)	10'800 × 2'400 (425 x 73)	10'300 (22'708)	4046597
48'900 (101'780)	14'000 × 2'400 (551 x 73)	13'600 (29'983)	4046598
58'700 (129'411)	15'500 × 2'400 (610 x 94)	15'000 (33'069)	4046599
97'850 (215'722)	13'500 × 3'000 (531 x 118)	29'500 (65'036)	4046600

All horizontal PU insulated ASCO CO<sub>2</sub> Storage Tanks are delivered skid-mounted.

## PU insulated ASCO CO<sub>2</sub> Storage Tanks: Standard scope of supply

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil

**Additionally either a load cell or a differential pressure indicator (Media 7) has to be chosen (see options).**

## Vertical PU insulated ASCO CO<sub>2</sub> Storage Tanks: Available standard capacities

Pos. 001

### ASCO CO<sub>2</sub> VT PU Storage Tank, 10 t (22'046 lb) TÜV/PED

part no. 4046602

10 t vertical, with a maximum filling weight of **9'800 kg (21'605 lb)**

- diameter: 1'800 mm (71 in) / height: 5'300 mm (207 in)
- empty weight: approx. 4'800 kg (10'582 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil



Pos. 002

### ASCO CO<sub>2</sub> VT PU Storage Tank, 15 t (33'069 lb) TÜV/PED

part no. 4046603

15 t vertical, with a maximum filling weight of **14'700 kg (32'408 lb)**

- diameter: 1'800 mm (71 in) / height: 7'300 mm (285 in)
- empty weight: approx. 5'300 kg (11'685 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil



Pos. 003

### ASCO CO<sub>2</sub> VT PU Storage Tank, 18 t (39'683 lb) TÜV/PED

part no. 4046604

18 t vertical, with a maximum filling weight of **17'650 kg (38'912 lb)**

- diameter: 1'800 mm (71 in) / height: 8'880 mm (344 in)
- empty weight: approx. 6'500 kg (14'110 lb)
- working temperature: -40 °C to +50 °C
- 

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil



## Vertical PU insulated ASCO CO<sub>2</sub> Storage Tanks: Available standard capacities

Pos. 004

### ASCO CO<sub>2</sub> VT PU Storage Tank, 23 t (50'706 lb) TÜV/PED

part no. 4046605

23 t vertical, with a maximum filling weight of **22'550 kg (49'714.24 lb)**

- diameter: 1'800 mm (71 in) / height: 10'300 mm (404 in)
- empty weight: approx. 7'800 kg (17'196 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil



Pos. 005

### ASCO CO<sub>2</sub> VT PU Storage Tank, 30 t (66'139 lb) TÜV/PED

part no. 4046606

30 t vertical, with a maximum filling weight of **29'500 kg (65'036 lb)**

- diameter: 2'400 mm (94 in) / height: 8'300 mm (325 in)
- empty weight: approx. 9'500 kg (20'944 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil



Pos. 006

### ASCO CO<sub>2</sub> VT PU Storage Tank, 40 t (88'185 lb) TÜV/PED

part no. 4046607

40 t vertical, with a maximum filling weight of **39'150 kg (86'311 lb)**

- diameter: 2'400 mm (94 in) / height: 9'800 mm (384 in)
- empty weight: approx. 11'200 kg (24'692 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil



## Vertical PU insulated ASCO CO<sub>2</sub> Storage Tanks: Available standard capacities

Pos. 007

### ASCO CO<sub>2</sub> VT PU Storage Tank, 50 t (110'231 lb) TÜV/PED

part no. 4046608

50 t vertical, with a maximum filling weight of **48'900 kg (107'806 lb)**

- diameter: 2'400 mm (94 in) / height: 12'600 mm (494 in)
- empty weight: approx. 13'600 kg (29'983 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil



Pos. 008

### ASCO CO<sub>2</sub> VT PU Storage Tank, 60 t (132'277 lb) TÜV/PED

part no. 4046609

60 t vertical, with a maximum filling weight of **58'700 kg (139'411 lb)**

- diameter: 2'400 mm (94 in) / height: 14'600 mm (573 in)
- empty weight: approx. 14'850 kg (32'739 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil



Pos. 009

### ASCO CO<sub>2</sub> VT PU Storage Tank, 100 t (220'462 lb) TÜV/PED

part no. 4046610

100 t vertical, with a maximum filling weight of **97'850 kg (215'722 lb)**

- diameter: 3'200 mm (126 in) / height: 14'000 mm (551 in)
- empty weight: approx. 25'800 kg (56'879 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil



# Horizontal PU insulated ASCO CO<sub>2</sub> Storage Tanks: Available standard capacities

Pos. 010

## ASCO CO<sub>2</sub> HT PU Storage Tank, 10t TÜV/PED

10t horizontal, with a maximum filling weight of **9'800 kg (21'605 lb)**

- diameter: 1'900 mm (75 in) / length: 5'805 mm (229 in)
- empty weight: approx. 4'000 kg (8'818 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices, skid-mounted.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil

part no. 4046592



Pos. 011

## ASCO CO<sub>2</sub> HT PU Storage Tank, 15t TÜV/PED

15t horizontal, with a maximum filling weight of **14'700 kg (32'408 lb)**

- diameter: 1'900 mm (75 in) / length: 7'305 mm (288 in)
- empty weight: approx. 5'000 kg (11'027 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices, skid-mounted.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil

part no. 4046593



Pos. 012

## ASCO CO<sub>2</sub> HT PU Storage Tank, 18t TÜV/PED

18t horizontal, with a maximum filling weight of **17'650 kg (38'912 lb)**

- diameter: 1'900 mm (75 in) / length: 8'800 mm (346 in)
- empty weight: approx. 6'000 kg (13'228 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices, skid-mounted.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil

part no. 4046594



## Horizontal PU insulated ASCO CO<sub>2</sub> Storage Tanks: Available standard capacities

Pos. 013

### ASCO CO<sub>2</sub> HT PU Storage Tank, 23t TÜV/PED

23t horizontal, with a maximum filling weight of **22'550 kg (49'714 lb)**

- diameter: 1'900 mm (75 in) / length: 10'300 mm (406 in)
- empty weight: approx. 7'000 kg (15'432 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices, skid-mounted.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil

part no. 4046595



Pos. 014

### ASCO CO<sub>2</sub> HT PU Storage Tank, 30t TÜV/PED

30t horizontal, with a maximum filling weight of **29'500 kg (65'036 lb)**

- diameter: 1'900 mm (75 in) / length: 11'800 mm (465 in)
- empty weight: approx. 8'600 kg (18'960 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices, skid-mounted.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil

part no. 4046596



Pos. 015

### ASCO CO<sub>2</sub> HT PU Storage Tank, 40t TÜV/PED

40t horizontal, with a maximum filling weight of **39'150 kg (86'311 lb)**

- diameter: 2'400 mm (95 in) / length: 10'800 mm (425 in)
- empty weight: approx. 10'300 kg (22'708 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices, skid-mounted.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil

part no. 4046597



## Horizontal PU insulated ASCO CO<sub>2</sub> Storage Tanks: Available standard capacities

Pos. 016

### ASCO CO<sub>2</sub> HT PU Storage Tank, 50t TÜV/PED

50t horizontal, with a maximum filling weight of **48'900 kg (107'806 lb)**

- diameter: 2'400 mm (95 in) / length: 14'000 mm (551 in)
- empty weight: approx. 13'600 kg (29'983 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices, skid-mounted.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil

part no. 4046598



Pos. 017

### ASCO CO<sub>2</sub> HT PU Storage Tank, 60t TÜV/PED

60t horizontal, with a maximum filling weight of **58'700 kg (129'411 lb)**

- diameter: 2'400 mm (95 in) / length: 15'500 mm (610 in)
- empty weight: approx. 15'000 kg (33'069 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices, skid-mounted.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil

part no. 4046599



Pos. 018

### ASCO CO<sub>2</sub> HT PU Storage Tank, 100t TÜV/PED

100t horizontal, with a maximum filling weight of **97'850 kg (215'722 lb)**

- diameter: 3'000 mm (118 in) / length: 13'500 mm (532 in)
- empty weight: approx. 29'500 kg (65'036 lb)
- working temperature: -40 °C to +50 °C

Safety valve setting 24 bar (348 psi), vessel made of carbon steel, PU insulated

Tank to be supplied complete with all pipework in stainless steel, valves and safety devices, skid-mounted.

Incl.:

- back-up valves on filling liquid and gas line
- 2 liquid withdrawal valves
- 2 gas withdrawal valves
- refrigeration coil

part no. 4046600



## Vertical & horizontal PU insulated ASCO CO<sub>2</sub> Storage Tanks: Options

Pos. 019

**Refrigeration unit for ASCO CO<sub>2</sub> H/VT PU10-30 t Storage Tank**

**part no. 4046612**

Pos. 020

**Refrigeration unit for ASCO CO<sub>2</sub> H/VT PU 40-100 t Storage Tank**

**part no. 4046613**

Pos. 021

**Heating unit for ASCO CO<sub>2</sub> H/VT PU Storage Tank**

**part no. 4046614**

Heating unit to hold the pressure stable inside the tank

Pos. 022

**Load cell for ASCO CO<sub>2</sub> H/VT PU Storage Tank 40-100 t**

**part no. 4046615**

Load cell instead of differential pressure indicator Media 7

Pos. 023

**Media 7 for ASCO CO<sub>2</sub> H/VT PU Storage Tank**

**part no. 4046616**

Differential pressure indicator Media 7 for liquid level indication instead of load cell

**Please note that the standard version of the tanks is NOT equipped with any filling level indication! Therefore one of the options (part no. 4046615 or 4046616) must be chosen.**