

**PNEUMATICS / HYDRAULICS** 

# Test Equipment For Supplemental Cooling System A350



#### AIRBUS CERTIFIED

For fully-automatic filling, draining, bleeding, replenishing and emptying of the Supplemental Cooling System (SCS) on the AIRBUS A350.

ATA Chapter 21

World-wide universal connection (compatible with multiple voltages)

- > Simple handling
- > SCS system of the A/C automatically turns to maintenance mode
- > Exactly planned service time
- > Minimizes service time
- > For hangar and outdoor application

Handpump-Topup, SCS >SCST1-TU<

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### Device-Fill/Drain, SCS

### >SCST1-FD< AND >SCST1-FD-D<

#### **PURPOSE**

- > The equipment is developed for the following purposes:
  - "Fill of Whole System"
  - "Drainage of Whole System"
  - "Top Up of Accumulator"
  - "Top Up and Drainage of Small ACU"
  - "Top Up and Drainage of SCS Chiller"
  - "Top Up and Drainage of VCRU"



- User friendly ergonomic setup and easy operation via display and buttons
- Interruption of service tasks with re-entry possible (replenishing with nitrogen)
- > Safe and trouble-free operation also in case of extreme environmental conditions
- Connection to the A/C or their components in connection with the adapter kits >SCST1-AK350CU< and >SCST1-AK350GSP<</p>



#### ADDITIONAL INFORMATION

- > All preparation tasks for the Device-Fill/Drain, SCS can be carried out before the actual application on the A/C
- > Easy maintenance via hinged or removable covers
- > Equipped for the transport by forklift
- > Compact and robust design double-axis-chassis with steering axle and towing bar
- > Spring-loaded chassis available as an option, recommended for long towing distances
- > Mechanic safety brake, also for use without towing vehicle

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#### **TECHNICAL DATA**

> Hydraulic parameters:

Flow: max. 501/min, max. 6.5bar abs.

(max. 13.2gal/min, max. 94psi abs.)

Nitrogen supply (requirements):

Input: min. 20bar (min. 290psi)

- 85

(external supply)

> Medium:

Propylen Glycol Water

(according to AIRBUS specification) (not included in the scope of delivery)

> Nitrogen connections:

- AN4

> Dimensions:

Height:

- AN6 - Schrader

> Reservoir volume:

Main-Reservoir: approx. 1801 (47gal)
Drain-Reservoir: approx. 1901 (50gal)
Sub-Reservoir: approx. 251 (6.6gal)

(. 1801 (47gal) Length:

(tow bar folded up) 4,400mm (173.2in)

3,400mm (133.8in)

(tow bar folded down)

Width:

1,350mm (53.2in) 1,600mm (63.0in)

> Operating conditions:

Ambient temperature: -30 to +50°C

(-22 to +122°F)

Storage temperature: -30 to +60°C

(-22 to +140°F)

Rel. air humidity: 5 to 90%

(non-condensing)

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#### TYPE SPECIFIC TECHNICAL DATA

#### >SCST1-FD<

#### > Electrical supply (requirements):

Mains connection:3/PE AC 50/60Hz 380-480V

Nominal current: 23.8A
Performance: 16.5kVA
Back-up fuse: 32A gG

#### > Noise emission at the rear of the device:

- Operation by means of the electrical supply: max. 60.5dB(A) in 1m (39in) distance

#### > Weight:

approx. 1,200kg (2,646lb)

#### >SCST1-FD-D<

#### > Electrical supply (requirements):

Mains connection: 3/PE AC 50/60Hz 380-480V

Nominal current: 23.8A
Performance: 16.5kVA
Back-up fuse: 32A gG

#### > Diesel generator set:

Performance: 20HP / 14.7kW

Cubic capacity: 997ccm Rotational speed:3,000rpm

Consumption: approx. 4.5I/h (1.2gal/h) (at full load)

Tank content: 7.01 (1.8gal)

#### > Noise emission at the rear of the device:

- Operation via electrical supply: max. 60.5dB(A) in 1m (39in) distance
- Operation via diesel generator set: max. 81.5dB(A) in 1m (39in) distance

#### > Weight:

approx. 1,300kg (2,866lb)





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#### STANDARD SCOPE OF DELIVERY

- > 2 EA hoses 15m (49ft) for the connection to the aircraft (1x FILL, 1x DRAIN)
- > 1 EA AC / GSE interconnection cable 15m (49ft)
- > 1 EA grounding cable to establish potential equalization
- > 1 EA current supply cable 20m (66ft) with CE-plug for operation by the external electrical supply
- > 1 set of nitrogen connections for world-wide application

#### **OPTIONS**

> Option - Spring-loaded chassis

In case of long towing distances, the device must be prevented from damage by integrating spring-loaded axes into the chassis.

> Option - Cover paint alternative to standard

Paint is skydrol-resistant.

Standard-cover paint: light grey (RAL 7035) / yellow orange (RAL 2000)

#### ACCESSORIES (optionally available)

- > Drum pump with the drum pump, the medium can easily be pumped off the canister or off a barrel into the Main-Reservoir.
- > PH-Meter to determine the pH-value of the medium according to AMM
- > Sampling glass measuring glass for sample taking of the medium during pH-value measurement.
- > Dust Cover- for protection from climatic influences and contamination during storage.

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drum pump (symbolic figure)



PH-meter (symbolic figure)



sampling glass (symbolic figure)





### Handpump-Topup,SCS

### >SCST1-TU<

#### **PURPOSE**

- > The device is developed for the following purposes:
  - "Top Up of Accumulator"
  - "Top Up and Drainage of Small ACU"
  - "Top Up and Drainage of SCS Chiller"
  - "Top Up and Drainage of VCRU"

#### **GENERAL INFORMATION**

- > Simple manual operation, filling procedure via integrated handpump
- > No electrical supply required
- > Tank with filling point, venting deaeration filter, drain plug and sight glass for fill level control
- > Pressure indication via pressure gauge on the operating plate, integrated hydraulic filter to clean the medium
- > Connection to the A/C or its components in combination with the adapter kits>SCST1-AK350CU< and >SCST1-AK350GSP<



#### ADDITIONAL INFORMATION

- > Laterally mounted retainers for the storage of the fill or drain hose
- > Removable collecting reservoir to catch used medium
- > Tow bar with grip and towing eye for manual manoeuvering or transporting the device with an appropriate towing vehicle
- > User friendly ergonomic setup of the device, simple, compact and robust setup, such as easy access for maintenance tasks

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#### **TECHNICAL DATA**

#### > Nitrogen supply (requirements):

Pressure: min. 6bar (87psi)

max. 200bar (2,900psi)

#### > Main-Reservoir:

Volume: 30l (7.9gal)

Usable volume: 18I (4.8gal)

Propylen Glycol Water (according to AIRBUS specification) (not included in the scope of delivery)

#### > Operating conditions:

Ambient temperature: -30 to +50°C

(-22 to +122°F)

Storage temperature: -30 to +60°C

(32 to 140°F)

Rel. air humidity: 5 to 90%

(non-condensing)

#### **CONTROL UNIT**



(Symbolic figure)

- > Colourless eloxated front panel
- > Imprinted hydraulic schematics
- Resistant against mineral oils and other fuels
- Clearly arranged operating elements



### Kit-Adapter GSP, SCS350

### >SCST1-AK350GSP<

#### **GENERAL INFORMATION**

- > Developed for the connection of the GSE and the A/C
- > Appropriate for the following GSE:
  - >SCST1-TU<
  - >SCST1-FD<
  - ->SCST1-FD-D<
- > For the following purposes:
  - "Top Up of Accumulator"
  - "Filling of Whole System"
  - "Draining of Whole System"





### Kit-Adapter CU, SCS350

### >SCST1-AK350CU<

#### **GENERAL INFORMATION**

- > Developed for the connection of the GSE and the A/C
- > Appropriate for the following GSE:
  - ->SCST1-TU<
  - ->SCST1-FD<
  - ->SCST1-FD-D<
- > For the following purposes:
  - "Top Up and Drainage of Small ACU"
  - "Top Up and Drainage of SCS Chiller"
  - "Top Up and Drainage of VCRU"



>SCST1< Technical data are subject to change!