

İ.S.T. İŞÇİ SAĞLIĞI TEÇHİZATI CO. LTD.

Airline Breathing Systems

iSTair

Types Of Airline Breathing Systems:

- Airline Breathing Systems With Compressor
- Portable Airline Breathing Systems



Area of use

- In areas where oxygen ratio is %19,5
- In indoor areas
- In tankers and tanks
- In poisonous areas
- In vessels and underground areas
- Generally, in every area that are called closed areas, where there is insufficient air for breathing.

Airline Breathing Systems With Compressors



Operating Principle of Airline Breathing Systems:

- Airline breathing systems with compressors are placed in clean-air environment.
- Compressor takes the clean air into the tank, and transmits the it to the user via the hose.

Parts of Airline Breathing Systems:

- Air Compressor
- Carrying Frame
- Air Tank(80 lt, 150 lt, 350 lt),
- Automatic Pressure switch
- Air regulator
- Moisture and particule filter
- ARITAN Active Carbon Air Filter
- Change over valve with audible alarm
- 6 lt 300 bar back-up air cylinder
- Hose reel and 33 mt antistatic hose
- Waist belt
- Appropriate Mask or Helmet and Demand Valve

Air Compressor

- Used for filling ambient air inside the air depot.
- Automatic stop and fill switch, stops when the tank is full with air and activates when the tank starts to get empty.
- The user needs 30-35 lt/minute fresh air while working underground. That's why the compressor is designed to have more capacity than required.
- Provides fresh air according to EN 12021 Standard.



Air Depot

- Used for storing the air that comes from the compressor. In our standard production, 80lt, 150lt ve 350lt options are available.
- In tough working conditions the user needs fresh air 30-35lt/minute . The capacity or air depots is much more above this level.

Moisture and Particulate Filter

- The moisture and oil granules inside the humid air that comes out of the compressor, are filtered by oil/air filter first.

ARITAN Active Carbon Filter

- When passing through ARITAN active carbon filter, hazardous vapors and gases are eliminated.
- Filters have a saturation point and must be changed when necessary. (When breathing becomes difficult and there is smell)
- AR1 carbon (for organic vapors) and silicagel (For moisture elimination)

Change-over Valve With Alarm - 6 lt 300 Bar Air Cylinder

- When air pressure in air depot drops below 4,5 bar for any breakdown or electricity cut-off, change over valve changes the direction of air supply automatically to the 6 lt 300 bar back-up air cylinder.
- Makes a 95 dB sound warning via the audible alarm.
- In this way, the back -up air ensures the user to leave the working place and to move on a safe area.
- This back-up cylinder provides approximately 60 minute air to one user.
- Standards:
 - Change Over Valve: EN 139
 - Cylinder: EN 144 (Cylinder Valve)
 - EN 1089-3 (Colour Code)
 - ISO 9809-2 (Steel Cylinder)
 - EN 12245 (Composite Cylinder)



Hose Reel and 33 mt Anti-Static Hose

- Via 33 mt antistatic hose, fresh air in air tank or in back-up cylinder in emergency situations, is delivered to the user.
- Tube ends have automatic couplings. Coupling connections are compatible with demand valve connections.
- Anti-static hose is specially designed to avoid electrostatic charge.



Belt and Waist Stabilizer

- The air hose that comes from the compressor is connected to the waist stabilizer on the belt.
- Demand valve is connected to to the other end of waist stabilizer and in this way fresh air is delivered to the user.

Full Face Mask and Demand Valve

- With appropriate full face mask, the air pressure is reduced and via demand valve - lung governed, breathing is performed.
- All hose and mask connections are done with automatic couplings and can be separated quickly when necessary.
- Standards

Full Face Mask: EN 136

Demand Valve : EN 137



80 LT PORTABLE, AIRLINE BREATHING SYSTEM WITH COMPRESSOR

- Provides appr. 7 bar pressured air. 220 V electrical motor
- 80 lt horizontal air tank,
- 33 mt anti-static hose and hose reel
- Demand valve and full face mask,
- 6 lt - 300 bar back-up cylinder that automatically provides air in case of electricity cut-off.
- Air regulator and emergency manifold,
- Active carbon aluminium filter housing, air gauge for air tank, oil and water separator, 4-wheel portable, chassis mounted regulator complete system



80 LT PORTABLE, AIRLINE BREATHING SYSTEM WITH COMPRESSOR

Technical Specifications :

- 80 lt/min air compressor, 2,5 hp 220 v direct coupled
- 80 lt 7 bar air tank
- Automatic stop and fill switch
- Demand valve
- Full Face Mask with Package
- Emergency manifold with alarm
- ARITAN air filter with active carbon
- Air regulator
- Oil and water separator
- 6 lt 300 bar back- up cylinder
- 33 mt anti-static hose and hose reel
- One outlet, suitable for one user.

150 LT PORTABLE AIRLINE BREATHING SYSTEM WITH COMPRESSOR

- Provides appr. 7 bar pressured air. 2 HP 220V (or 380V) electrical compressor
- 150 lt horizontal air tank,
- 2 pcs 33 mt anti-static hose and hose reel
- 2 pcs demand valve and 2 pcs full face mask
- 6 lt - 300 bar back-up cylinder that automatically provides air in case of electricity cut-off,
- Air regulator and 1 pcs emergency manifold,
- 2 pcs active carbon filter, air gauge for air tank, oil and water separator, 4-wheel portable, chassis mounted regulator complete system



150 LT PORTABLE AIRLINE BREATHING SYSTEM WITH COMPRESSOR

Technical Specifications:

- 150 lt/min air compressor 2 hp 220V (or 380V), belt and pulley connected
- 150 lt 7 bar air tank
- Automatic stop and fill switch
- 2 pcs Demand valve
- 2 pcs full face mask with package
- 1 pcs emergency manifold with alarm
- 2 pcs ARITAN active carbon air filter
- 1 pcs 6 lt 300 bar back-up cylinder
- Air regulator
- Water and oil separator
- 2 pcs , 33 mt anti-static hose and hose reel
- Two outlets , suitable for two users.

TRAILER MOUNTED AIRLINE BREATHING SYSTEM WITH COMPRESSOR

- Manufactured according to traffic regulations, minimum 500 kg capacity, 2-wheeled axled trailer, front wheel to ensure balance.
- Provides appr. 7 bar pressured air, 5,5 HP-380 v -700 lt / min electrical compressor,
- 350 lt robust yatık horizontal air tank
- 4 pcs 33 mt anti-static hose and hose reel,
- 4 pcs demand valve and 4 pcs full face mask
- 2 pcs 6 lt - 300 bar back-up cylinder that automatically provides air in case of electricity cut-off, air regulator and 2 pcs emergency manifold, 4 pcs active carbon filter, air gauge for air tank, oil and water separator, complete system



TRAILER MOUNTED AIRLINE BREATHING SYSTEM WITH COMPRESSOR

Technical Specifications:

- 700 lt/min 2-cylinder air compressor
- 5,5 hp 380V motor
- Automatic stop and fill switch
- 350 lt stainless steel air tank
- 4 pcs demand valve, 4 pcs full face mask
- 4 pcs ARTIAN active carbon filter
- 2 pcs emergency manifold with alarm
- 2 pcs 6 lt 300 bar back-up cylinder
- Air regulator
- 4 pcs , 33 mt anti-static hose and hose reel
- 4 outlets , suitable for 4 users.

PORTABLE AIRLINE BREATHING SYSTEM



OPERATING PRINCIPLE OF WHEELED AIRLINE BREATHING SYSTEMS :

- Airline breathing systems are designed to deliver the pressed fresh air in the cylinders to the user at the other end of the hose.

PARTS OF WHEELED AIRLINE BREATHING SYSTEMS

- Carrying plate
- 2 pcs air cylinder
6 lt 300 Bar, 6,8 lt 300 Bar or 25 lt 200 bar etc. options
- High pressure hose
- Pressure regulator
- Hose reel and air hose
- Mask and Demand valve

2 x 6 lt - 300 bar

AIRLINE BREATHING SYSTEM

- 2 wheeled chassis, can be used in both underground and above ground operations, can be carried by one person, extra safety devices.
- Pressure reducing regulator, 1 pcs hose reel, 1 pcs demand valve and 1 pcs positive pressure full face mask, full set.



2 x 6 lt - 300 bar

AIRLINE BREATHING SYSTEM

Technical Specifications :

- 2 pcs 6 lt- 2 x 300 bar steel cylinder
- Pressure reducing regulator
- Connection systems
- Positive Pressure Full Face Mask
- Demand valve
- Waist belt and air connection adapter

2 x 6,8 lt - 300 bar

AIRLINE BREATHING SYSTEM

- 2 wheeled chassis, can be used in both underground and above ground operations, can be carried by one person, extra safety devices.
- Pressure reducing regulator, 2 pcs hose reel, 2 pcs demand valve and 2 pcs positive pressure full face mask, full set



2 x 6,8 lt - 300 bar

AIRLINE BREATHING SYSTEM

Technical Specifications :

- 2 pcs 6,8 lt- 300 bar steel cylinder
- Pressure reducing regulator
- Connecting systems
- Positive pressure full face mask
- Demand valve
- Waist belt and air connection adapter

2 x 25 lt (50 lt) - 200 bar AIRLINE BREATHING SYSTEM

- 2 wheeled chassis, can be used in both underground and above ground operations, can be carried by one person, extra safety devices
- Pressure reducing regulator, 1 pcs hose reel, 1 pcs demand valve and 1 pcs positive pressure full face mask, full set.



2 x 25 lt (50 lt) - 200 bar AIRLINE BREATHING SYSTEM

Technical Specifications:

- 50 lt (2 x 25 lt) - 200 bar steel cylinder
- Pressure reducing regulator
- Hose reel and 33 mt anti-static air hose
- Positive pressure full face mask
- Demand valve
- Waist belt and air connection adapter

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