





Renowned for unique expertise in the design and development of specialized custom industrial equipment, since 1971.



Setting the benchmark for the design and supply of combined life/safety rope with a built-in communication wiring - now an industry standard for confined space communication



Products certified and approved by major certification agencies as required



A world-renowned supplier of critical electronic components, Air/Communication Equipment and custom products for Nuclear Power Plants and other industries



Industry experts for finding near-obsolete or end-of-life parts and products




<https://sedtechnologies.com/>





Military  
Navy  
Air Force




Power Generation  
Nuclear Hydro  
Oil Coal  
Gas




Aviation  
Railways  
Marine



Mining



Construction



Manufacturing



Petrochemical



Emergency  
Services



Shipping  
Transportation



OUR  
CUSTOMERS



Power Generation  
Nuclear

## OUR CLIENTS

### CANDU reactors in operation around the world

Country	Type of reactor	Units	Net capacity (MWe)
Argentina	CANDU	1	600
○ Canada	CANDU	19	13,513
○ China	CANDU	2	1,280
India	CANDU & CANDU-derived	2 + 16	277 + 3,480
Pakistan	CANDU	1	125
○ Romania	CANDU	2	1,305
○ South Korea	CANDU	4	2,579

\*The source of information The Canadian Nuclear Association (CNA) <https://cna.ca/>

**OUR SOLUTIONS  
FOR CLIENT'S REQUIRMENT**

# Suit Communications

## Suit Connection Assemblies

- Breathing Air Supply Hose
- Combined Air/Communication Hose™
- Header Lock
- 2ft Whips

## Suit Components

- Air/Communication Assembly (ACA)
- Air Only Distribution Assembly (ADA)
- Air Distribution Interface (ADI/Bobbin)
- Glove Rings

## Air Distribution Products

- Cooling Air Harness
- Ram's Horn Air Supply

## Station Fittings

- Multi-Station Combined Air & Communication Header
- Combined Air/Communication Header™ Connector
- Air Header Installation Wiring Assembly

# Suit Connection Assemblies



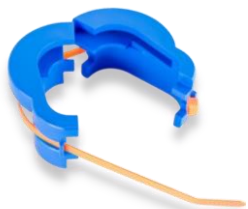
**Combined Air/Communications Hoses™** connect disposable and launderable plastic suits to station air headers, such as those used to supply breathing & cooling air in Nuclear Power Generation and Pharmaceutical industries.



**Breathing Air Supply Hoses** are used to connect disposable and launderable plastic suits, such as those used in the Nuclear Power Generation and Pharmaceutical Industries to air supply sources.



**2ft Whips** are designed to allow Whips to be left connected to the Air Breathing Station Headers. Whips extend the life of Combined Air/Communication Hoses™, and allow personnel encumbered with plastic suits, to connect to the header with greater ease.



**Header Locks** are designed to lock SED Inc's Combined Air/Communication™ Whip and Combined Air/Communication™ Hoses to the Air Breathing Station. Locks prevent unwanted removal of the Whip, which helps to reduce wear & tear on the header connector and connected hoses.

# Air Distribution Products



**The Cooling Air Harness** provides critical cooling air for personnel wearing disposable suits in hot environments. Typically used in nuclear power generation stations, coal-fired plants, etc. The IH Regulator (CAH-ACA) is inserted between the existing hose connection and the suit inlet component of the ACA. The CAH-02 provides cooling from head to toe, whereas CAH-01 provides cooling only for the upper body.



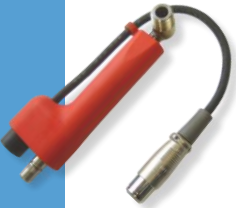
**The Ram's Horn Air Supply** is used with nuclear hoods and disposable suits (Tyvek® and others) to supply breathing air to personnel in nuclear environments, coal-fired plants etc. The Ram's Horn is manufactured of lightweight material and comes complete with neck straps and a belt, which supports the connecting air hose. Due to its unique design, cool breathing air is distributed to the head area for easy breathing while keeping the User cool.



# Suit Components



**Air Distribution Assembly (ADA)** is designed to terminate the Air Only Hose at the suit interface fitting, without electrical wiring. It uses an ADI (Bobbin) to connect the Breathing Air Hose to the suit. These are typically used with launderable plastic suits.



This **assembly** provides a termination point for the **Combined Air/Communication Hose™** at the suit interface fitting (at the Air Distribution Interface – ADI). It uses the ADI (Bobbin) to connect the Combined Air/Communications Hose to the suit. These are typically used with launderable plastic suits. The assembly splits out a separate electrical connection from the Combined Air/ Communication™ Hose for communications in the plastic suit.



**Air Distribution Interface ADI (Bobbin)** provides a termination point for the Air/Communications Hose™ and Air Breathing Hose at the suit. The fitting is snapped into the plastic suit's outer and inner waistband walls, to provide air supply into the plastic suit air channels for breathing and cooling.



**Glove Rings** are a replaceable component that terminates the arms of a plastic suit. Gloves are fitted in an air-tight fashion to the suit, typical of those used in CANDU nuclear power generating stations. Gloves may be replaced without the use of special tools and are generally attached prior to entry into the work area by the User or a Dresser.

# Station Fittings



**Industrial assembly** for use with Air Headers. Designed to be used with SED Inc.'s Air/Communication™ Hose with, or without an electrical wiring tail. Metal hose Release Lever is durable and designed for extended use.

**Multi-Station Combined Air & Communication Header** provide Station Air and Communication connection suitable for connection of Combined Air/Communication Hoses™. In the standard form, four connection points are provided per Header. Air distribution piping can be provided in either stainless steel or copper and brass tubing. Copper and brass header manifolds are standard. Cabinet is provided with grey enamel finish.



**Air Header** Installation Wiring Assembly for wall-mounted Breathing Air Stations (BAS) connects the BAS to permanent plant wiring (nuclear accepted). Assembly is terminated with a hermetically sealed connector for connection to the air and communication header box with wires enclosed in a stainless-steel flexible conduit, (approximately 2m). Terminated with conduit box connector for the wall-mounted octagonal wiring box with labelled barrier block connection strip for ease of installation to station wiring. Wiring is provided for 12 pins with blunt cut ends.

# Communication Products

## Communication Systems

- Halo Pro®
- Rescom® Elite™
- Pro Commander™ III
- Pro Commander™ IV
- AIRS™

## Other Products

- Handsets and Cradles
- SAU's
- Strobe lights
- Telephone Extension Ringer
- PA notice & Status Annunciators
- Acoustic Booth
- Headsets

# Halo Pro®



**Halo Pro® Series** offers **more Intrinsically Safe Radio accessories** than any other Radio Communication System in the market. It allows Users to connect Headsets and Radios using a UM (VOX/PTT) or SRI (PTT only) interface or just connect the headsets with a host radio. Hazmat, high noise, wet and dirty environments, can finally be handled with confidence using the HALO® Intrinsically Safe series. The belt or carabiner mount Interfaces are energy efficient and can last several days without recharging. With a choice of application-specific Headsets and the clearest audio in the business, HALO® Series makes it easy to add versatility to your existing Radio Communication System without compromising intrinsic safety.

# Rescom Elite®

**Rescom Elite®** is an **instantly deployable**, Intrinsically Safe, hardline system designed to provide clear, effective, and continuous communication for a confined space or a high-angle rescue scenario.

These systems typically consist of:

- A Primary Interface (DMI) with a Headset for the Attendant
- Two or more Dependent Interface units (DSI) with Headsets for Entrants
- Combined Safety/Communication Ropes™ and/or DuraCORE™ Cables
- A Junction Box



# Headsets



Heavy-Duty Headsets



Hardhat Headsets



Ultra-lightweight Headsets



Lightweight Mesh-Mounted Headset with Throat Mic



Lightweight Mesh-Mounted Headset with Throat Mic



Over-the-Head Helmet Headsets



Helmet Headsets



Bluetooth Headsets



# AIRS™ – Advanced Industrial Radio System



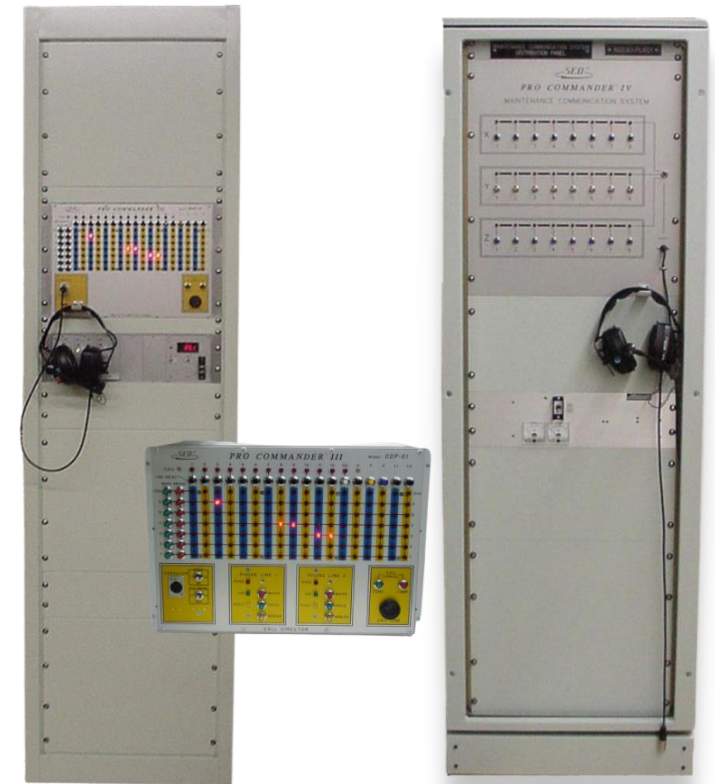
**AIRS™** is a **compact, wireless, portable, instantly-deployable** and expandable VoIP-based wireless communication system. This revolutionary system can connect up to 100 Users, which is extremely high as per the industry standards. It can be used as a stand-alone system or can be tied into your existing Wi-Fi communication system.

## ProCommander™ III – Industrial Intercom System

**ProCommander™ III** is a wired communication system designed to provide full-duplex communication in potentially harmful/hazardous environments, such as may be found in Nuclear Power Station Reactor Vaults and environmentally-controlled laboratories. **The system supports up to 192 headsets.** The Main Control Console provides conferencing for the 12 Zones, 2 telephone lines

## ProCommander™ IV – Maintenance Communication System

**The Pro Commander™ IV** is a very straightforward Headset Communication System allowing groups of up to 20 Users to jack in and be conferenced together (with an optional conferencing module to create groups of up to 3 x 20 or 60 Users). Receptacle Boxes are multi-channel so workgroups can be formed on the fly during work set up.



# Signal Annunciator Units (SAU)



Product delivered by SED Inc. interpreted the incoming audible signals to determine the type of alarm status to be enunciated by the coloured strobes. Some automatically detect the alarm tone type, differentiating alarm from voice and to turn on the appropriate strobe



## Acoustic Booths

This Acoustic Phone Booth greatly enhances communication in areas with high background noise levels, while providing ultimate privacy.



## Handsets & Cradles

Choose from many standard versions of handset, cradle or combination assemblies or create your own!



# Human Performance Training

## HuPerT<sup>®</sup>

They were developed to assist in the reduction of Human Errors after the Event at the Three Mile Island Nuclear Plant in 1979.

They are used to Train and Evaluate Participants in the following Event-Free Areas called "Tools".



# HU Tools

## Briefing Tools

- Job Site Task Preview
- Pre-Job Brief
- Post-Job Review
- Turnover

## Situational Awareness Tools

- Questioning Attitude
- Stop When Unsure
- Care Enough to Act

## Communication Tools

- Effective Verbal Communication
- Three-Way Communication
- Phonetic Alphabet & Numbers

## Checking Tools

- First Check
- Self Check
- Peer Check

## Procedure Tools

- Procedure Use
- Procedure Adherence
- Place-Keeping

## Verification and Flagging Tools

- Independent Verification
- Concurrent Verification
- Flagging



## HuPerT® 1000 – Full-size Human Performance Trainer

Push buttons, control switches, and LEDs similar to those in Nuclear Power Plants and Process Controls

7 programs used to train and evaluate participant using Event-Free Tools



## HuPerT® 2000 – Portable Human Performance Trainer

Portable Human Performance Trainer with all the features of HuPerT® 1000

Durable travel case with extendable handle and wheels

## Services

- Human Performance Training
- Human Performance Customer
- Onsite Orientation



## HuPerT® Fluid Dynamic Learning Activity

Designed to enhance the scope of Human Performance Training and Evaluation Programs

Durable travel case with wheels and extendable handle.

# Environmental Sensor Case



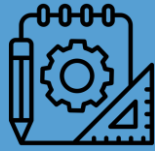
**Designed** to protect and organize equipment in harsh environments

**Easy** to deploy and monitor internal displays

**Customizable** window size & position for easy viewing of displays

**Multiple mounting options:** magnetic, stanchion, handrail

# OUR SERVICES



**Mechanical Design.** SED Inc. can develop your product from concept to manufacture. We have experience with designing instrumentation cabinets, electronic equipment, air supply components, parts for plastic suits, tooling, special purpose components and more.



**Development & Injection Moulding.** SED Inc is able to redesign an existing product or concept for improved manufacturability, strength, reliability, cost or weight reduction if required. The plastics that we can mold for you include super tough nylon, ABS, polycarbonate, polyethylene and engineering plastics.



**Drafting Service & 3D Printing.** SED Inc. can provide a number of engineering support services. These can be stand-alone or as a part of more extensive projects.



**System Integration.** Our experience with multi-milliondollar contracts both in the domestic and international markets qualifies us as an experienced supplier of your specialized requirements. With SED Inc's design engineering background, cost-effective solutions can be created through procurement of off-the-shelf components integrated with new product designs as required.



<https://sedtechnologies.com/>



# Other Services Include

- Assembly (If required)
- Prototyping to production quantities (If required)
- Contract Manufacturing & Assembly
- Skilled hand assembly for critical applications
- Through-hole & mixed technology PC Board assembly
- Procurement
- IEC soldering standard
- Machining includes drilling, punching, milling, lathing
- Modification of materials/components
- Ultrasonic welding
- Cable & loom assembly
- Mechanical & Electronic product assembly
- In-house functional testing
- ISO 9001/2000 Quality Program

