

#### CONNECTED TO INNOVATION











# The prevost coupling the ideal solution for every air powered business

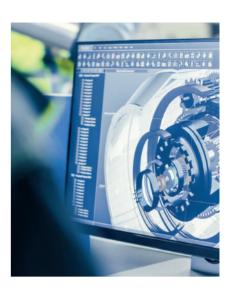
The prevoS1 quick safety coupling's innovative design sets the new standard in the automotive and industrial sectors. The high-tech, top quality manufacturing and ergonomic design guarantees long term performance and customer satisfaction.

The couplings increase efficiency in the work place and meets all applicable industrial safety standards for an optimum return on investment.

# **CONNECTING** THE AIR POWERED INDUSTRY

The **prevoS1** air coupling meets performance and safety standards for a diverse group of applications:

- Automotive manufacturing
- Auto body and Quick Service Shops
- Plastics
- Wood crafting and manufacturing
- Textiles
- Food-processing



## **HIGH QUALITY**PERFORMANCE

Completely sealed and durable for a long service life, **prevoS1** quick safety couplings guarantee high efficiency performance for your pneumatic systems and tools.

## INTERNATIONAL COMPATABILITY

**prevoS1** couplings are available in an assortment of profiles and are compatible with many international standards.

- Popular profiles
- ISO 6150 B/Industrial, Truflate, High Flow, ARO 210, ISO 6150 C, Asian, British



### **Innovating** for user performance



prevoS1 coupling bodies are made from a lightweight, composite material.

They are ergonomically designed with user comfort in mind and offer automatic one-push connection/disconnection technology to increase speed in workshops.

These built in features allow users to increase efficiency and work with ease.

# SIMPLE AND INTUITIVE TO USE

- Quick, effortless coupling Fast connection
  - ⊕ Internal mechanism cannot be damaged
- Compact and lightweight
   Precise control
   Reduce fatigue during repetitive use
   Increase production speed
- Swivel bodyFree range of movement Ideal positioning
  - Less labor output from operator

# COMFORTABLE FOR ALL DAY USE

- Ergonomic shape
  - ① Comfortably fits in the palm of your hand
- Composite bodyNon-scratchProtection against cold air
  - Allows a firm grip on the coupling
  - Protect fabricated goods from damage
- One step to connect and disconnect pneumatic systems and tools
   Quickly change out tools on assembly lines
  - ⊕ Streamline movement and increase productivity

## **Innovating** for safety



Compliant with international safety standards and equipped with anti-hose whip technology, prevoS1 couplings are designed to eliminate accidents in the workplace and reduce costly damages to surrounding equipment.



#### **SAFETY** AT FVFRY I FVFI

#### Safety in construction

Anti-static construction No static electricity conducted



 Dust will not be attracted to painted or varnished surfaces



■ Silicone-free manufacturing



Safety requirements of the

ISO 4414 standard

SAFETY STANDARD

■ European Pressure Equipment

**COMPLIANT** 

Directive (PED)

 Surface imperfections will not be created during the paint or varnish application by contaminated compressed air

■ Compatible with class 1 and 2 (gas) and 21 and 22 (dust) ATEX zones

#### **Enhanced user safety features**



No risk of hose whip or accidental disconnection





Quickly identify different profiles Reduce connection errors

Less damage, fewer accidents

and leaks



# **Innovating** for energy efficiency



The perfect seal and long service life of prevo S1 quick safety couplings and plugs guarantee the efficiency of pneumatic systems and tools by eliminating costs linked to damage and leaks.

## ADVANTAGES OF PREVOS1 COUPLINGS

- Automatic and effortless coupling Lightweight, resistant to abrasion, vibrations and corrosion
  - 1 Long service life
- Innovative sealing mechanism prevoS1 quick safety couplings used with PREVOST plugs eliminates all risk of leaks in the coupled and uncoupled positions.
- A guaranteed seal:
- ① O-ring

Allows a perfect outer external seal between the plug and coupling when connected.

Valve seal

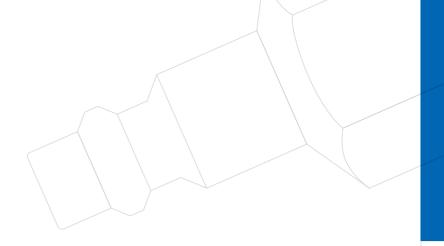
Fits tightly against the valve and provides a complete seal.

#### **FINANCIAL BENEFITS**

- **prevo\$1** quick safety couplings offer a three-year warranty, will operate leak free and require no ongoing maintenance all factors which reduce operating expenses for businesses
- No significant pressure loss as air passes through the coupling

  The aerodynamic valve provides a consistent flow rate, without any pressure loss. This results in a higher powered, more efficient tool.
- Optimal air flow guaranteed for improved efficiency of pneumatic systems and tools
- ① Lower energy costs
- Enhanced productivity







THE COST OF
A LEAK BY THE
NUMBERS

A leaking air system creates increased energy consumption resulting in significant financial losses for companies.



OF THE COMPRESSED AIR ENERGY GENERATED IS LOST DUE TO LEAKS IN FACILITIES.



FOR PROPER USE OF TOOLS, THIS LOSS OF ENERGY MUST BE BALANCED. FOR EXAMPLE, COMPENSATION OF 14.5 PSI RESULTS IN 6% ADDITIONAL ENERGY CONSUMPTION. In a compressed air network, leaks most frequently occur at the **coupling-plug** connection site. This can be attributed to poor design and inferior quality of the seal between the components.

To see cost savings and high performance benefits, you must first start with a solid connection from a high quality coupling and plug.

The one of a kind performance and long lasting reliability by prevo*S1* quick safety couplings and plugs is created through the perfect seal.

	PREVOST PLUG	CONVENTIONAL PLUG
MATERIALS	PREVOST plugs are made of nitrided steel and are scratch- and corrosion-resistant.	Brass plugs are unreliable, they do not stand up to vibrations. The surface quickly deteriorates which results in higher disconnection rates. The plug can cause premature damage to the seal which can create a leak.
STANDARDS	PREVOST plugs comply with all current standards, including numerous applicable ISO standards.	A plug that does not conform with standard dimensions and tolerances will not achieve a perfect connection with the coupling and leak.
TOLERANCES	PREVOST plugs conform with the exact dimensions and tolerances dictated by applicable standards.	Many plugs do not conform to the standardized tolerances to compatibly operate with a top-quality coupling.  The plug and coupling will eventually fail, creating a poor connection and leak.

# prevosite polymer body



#### CONSTRUCTION

- Body built from composite polymer material for heavy duty performance.
- Other components: steel or aluminum with RoHS-compliant corrosion protection treatment.
- Seal: Nitrile NBR O-ring
- Check valve and button made from composite material

#### **PRESSURE**

#### AND TEMPERATURE

- Service pressure range:29 to 174 psi (not suitable for vacuum)
- Temperature: 5°F to 158°F

# ADVANTAGES OF THE PREVOS1 COMPOSITE-BODY COUPLING

- Ultra-lightweight
  - 3 oz for 1/4" body couplings
  - 4 oz for 3/8" body couplings
  - 6 oz for 1/2" body couplings
- Non-scratchProtects delicate surfaces
- Anti-static

Not conductive, to avoid problems relating to static electricity. (ex. dust attracted to the paint/polish/ electronic equipment).

- Allows the coupling to meet ATEX Directive requirements. Coupling can be used in class 1 and 2 (gas) and 21 and 22 (dust) ATEX zones.
- Quick and easy to connect the plug tinto the coupling due to the innovative design of the internal mechanism

#### Versatile coupling

- < 18 lbf at 90 psi for couplings with 1/4" clearance
- < 22 lbf at 90 psi for couplings with 3/8" clearance
- < 40 lbf at 90 psi for couplings with 1/2" clearance
- lbf: pound-force
- Safe and effortless handling
- Applications

All connections

Assembly lines (automotive, large scale production, etc.)

Mechanical manufacturing, machining workshops

Paper and printing industries

Automotive repair, Quick body and Paint shops

Textile industries

Wood and plastics industries

All work on fragile products

Technical education

#### Flow rate at 100 psi with $\Delta P$ of 10 psi

Profiles	Industrial 6 mm 1/4"	ISO C 6 mm 1/4"	ARO 210 6 mm 1/4"	British 6 mm 1/4"	Automotive 6 mm 1/4"	High Flow 7.4 mm 3/8"	Industrial 8 mm 3/8"	ISO C 8 mm 3/8"	Automotive 8 mm 3/8"	High Flow 10.4 mm 1/2"	Industrial 11 mm 1/2"	Automotive 11 mm 1/2"
Coupling	ISI 06	CSI 06	ASI 06	BSI 06	USI 06	ESI 07	ISI 08	CSI 08	USI 08	ESI 11EB	ISI 11 EB	USI 11EB
Flow rate cfm	34	34	32	29	34	73	81	81	81	142	148	120
PREVOST compatible plugs	IRP 06	CRP 06	ARP 06	BRP 06	URP 06	ERP 07	IRP 08	CRP 08	URP 08	ERP 11	IRP 11	URP 11

# prevo stainless steel body



#### **CONSTRUCTION**

- Body: stainless steel with 17% chromium
- Other components: steel or aluminium, treated for corrosion resistance, in accordance with the RoHS standard
- Seal: Nitrile NBR O-ring
- Check valve and button made from composite material

#### PRESSURE

#### AND TEMPERATURE

- Service pressure range:29 to 232 psi (not suitable for vacuum)
- Temperature: 5°F to 158°F

#### ADVANTAGES OF THE PREVOS1 METAL COUPLING

- Extremely tough couplings
- Perfect for the harshest operating conditions including intense impacts, crushing, dirty or damp environments.
- Recommended for high demand industries such as public works, ship building, heavy duty construction, maintenance vehicles, mining and offshore drilling, etc.
- Anti-static

Not conductive, to avoid problems relating to static electricity. (ex. dust attracted to the paint/polish/electronic equipment).

Allows the coupling to meet ATEX Directive requirements. Coupling can be used in class 1 and 2 (gas) and 21 and 22 (dust) ATEX zones.

- Quick and easy to connect the plug into the coupling due to the innovative design of the internal mechanism
- Safe and effortless handling
- Coupling force at 90 psi< 36 lbf at 90 psi</li>lbf: pound-force
- Applications

Tough jobs

Harsh applications

Maintenance for industrial vehicles, agriculture, public works, mines and quarries, etc.

Heavy industry and manufacturing, iron and steel production, foundries, cement works, etc.

#### Flow rate at 100 psi with $\Delta P$ of 10 psi

Profiles	High Flow 10.4 mm 1/2"	Industrial 11 mm 1/2"	Automotive 11 mm 1/2"		
Coupling	ESI 11	ISI 11	USI 11		
Flow rate cfm	142	148	120		
PREVOST compatible adaptors	ERP 11	IRP 11	URP 11		

## **Configurations**

#### **INSTALLATION**

#### **OPTIONS**

#### Parallel female thread

- BSPP
- International standard ISO 228/1



#### Parallel male thread

- BSPP
- Built-in gasket
- International standard ISO 228/1



#### **Tapered female thread**

- NPT in accordance with ASME B 1.20.1
- BSPT in accordance with ISO 7



#### **Tapered male thread**

- NPT in accordance with ASME B 1.20.1
- BSPT in accordance with ISO 7



#### **Hose connection**

Connection with double-ear O-clamp



#### **Bulkhead fitting**



#### Threaded swivel joint

- Rotation through 360° on two axes
- Scratch protection



#### Rotating coupling, parallel thread

- Built-in gasket
- Rotation through 360° on one axis



#### Single wall fitting

Built-in manual drain



#### **Double wall fitting**

Built-in manual drain



#### **Multiple wall fitting**

- Manual drain
- 4. 6. 8 or 10 outlets



#### Coupling identification

- Color code based on international profile (page 11)
- Part number and tracking code laser engraved on each product







# Profiles characteristics prevo

Profiles		Part number	Quick safety couplings	Clearance	Thread	Flow rate at 6 bar ∆P 0.6 bar	Flow rate at 100 psi ∆P 10 psi
MIL-C 4109F 1/4"		ISI 06		6 mm 1/4"	BSP/NPT	833 I/min	34 Scfm
MIL-C 4109F		ISI 08		8 mm 3/8"	BSP/NPT	2028 l/min	81 Scfm
MIL-C 4109F 1/2"		ISI 11EB		11 mm 1/2"	BSP/NPT	3686 l/min	148 Scfm
MIL-C 4109F 1/2"		ISI 11 STAINLESS STEEL BODY		11 mm 1/2"	BSP/NPT	3686 l/min	148 Scfm
3/8" 2		ESI 07		7.4 mm 3/8"	BSP/NPT	1820 l/min	73 Scfm
3/8"		ESI 07HE STAINLESS STEEL VERSION		7.4 mm 3/8"	BSP/NPT	1820 l/min	73 Scfm
1/2"		ESI 11EB		10.4 mm 1/2"	BSP/NPT	3530 l/min	142 Scfm
1/2"		ESI 11 STAINLESS STEEL BODY		10.4 mm 1/2"	BSP/NPT	3530 l/min	142 Scfm
6150 C 1/4"		CSI 06		6 mm 1/4"	BSP/NPT	833 l/min	34 Scfm
6150 C 3/8"		CSI 08		8 mm 3/8"	BSP/NPT	2028 l/min	81 Scfm
1/4"		ASI 06		6 mm 1/4"	BSP/NPT	800 l/min	32 Scfm
1/4" E		BSI 06		6 mm 1/4"	BSP	750 l/min	29 Scfm
1/4"		USI 06		6 mm 1/4"	BSP/NPT	833 l/min	34 Scfm
3/8"		USI 08		8 mm 3/8"	BSP/NPT	2028 l/min	81 Scfm
1/2"		USI 11EB		11 mm 1/2"	BSP/NPT	2987 l/min	120 Scfm
1/2"		USI 11 STAINLESS STEEL BODY		11 mm 1/2"	NPT	2987 I/min	120 Scfm



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