prevost

CONNECTED TO INNOVATION



prevoSi RANGE

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prevost : *technology at the heart of innovation*

- **1978:** Prevost designs the first metal coupling with a square button.
- **1985:** Prevost develops a new locking technique and the button becomes round.
- **1990:** Prevost creates a composite body. The coupling becomes lightweight and non-scratch.
- **1993:** Prevost revolutionises the compressed air sector with the launch of its «anti-hose whip» safety feature.
- **2008:** Prevost invents the **prevo *S1*** coupling: with just one touch of a button, the coupling is immediately decompressed and disconnected in complete safety.

ISO STANDARDS 4414

INNOVATION

WORLDWIDE EXCLUSIVITY
PATENTED AND PROTECTED

prevoS1 innovation

Prevo *S1* couplings combine high technological performance and value for money in order to meet the very highest standards required by operators.

The **prevo *S1*** range is synonymous with the excellent quality, service life, innovation, safety and maximum efficiency of its pneumatic systems and tools.

With a three-year guarantee, the **prevo *S1*** coupling is of unrivalled quality with patented and protected technological innovations.



Simple and intuitive to use

- **Quick and effortless coupling:** easy to connect, with no risk of damaging the internal mechanism.



- **Decompression and disconnection of your pneumatic systems and tools in a single step:** easy to use, enabling tools to be changed quickly on assembly lines.

- **Swivel body allowing for quick assembly and optimal positioning:** cost savings as a result of improved productivity and labour requirements for installation.

Certified safety

- **Automated control over decompression and disconnection in complete safety:** no risk of hose whip or accidental disconnection, therefore no hazards for operators or for products and tooling located in the vicinity. **ISO 4414.**



- **Silicone-free manufacture:** to avoid the risk of compressed air contamination during the application of paint or varnish (surface imperfections).

- **Anti-static construction:** to avoid the risk of external dust being attracted to painted or varnished surfaces and the creation of static electricity during construction.

- **ATEX 2 certification:** attests to the safety of **prevo *S1*** couplings in most industries (gaseous environments, paint booths, etc.). Equipment complies with requirements for zones classified as: 2 and 20
  gas dust



Sturdiness

- **Resistant to abrasion, vibrations, corrosion, impacts and crushing:** reinforced composite body capable of withstanding the harsh conditions frequently found in production environments.



An ergonomic design for greater working comfort

- **Ergonomically shaped to ensure a natural grip and ease of handling.**
- **Non-slip composite surface** to ensure a firm grip on the coupling.
- **Compact and lightweight coupling:** for maximum user comfort in the event of repetitive handling. It ensures accuracy of use and thus increases workstation efficiency.

International compatibility

- **With all standard and non-standard profiles** (ISO 6150B, ISO 6150C, 7.2-7.4 mm). The **prevo *S1*** range meets the requirements of nearly all standards.
- **Colour coded buttons mean that international profiles can be identified quickly and easily:** less risk of connection errors that may result in damage or cause accidents.

Unrivalled performance thanks to a perfect seal

The **prevo *S1*** seal mechanism, in conjunction with a Prevost adaptor, ensures that all risk of leaks is eliminated in both the coupled and uncoupled positions.

The seal depends on two areas:

- **O-ring on the adaptor side:**
  this ensures a perfect peripheral seal around the adaptor when connected.
- **Valve seal:**
  the aerodynamic valve ensures that the flow rate is optimised, without resulting in pressure loss. This results in a higher available power for the tool and thus better efficiency.



- Leaks account for more than 20% of the production of compressed air in workshops, and are the source of significant financial losses in terms of energy consumption.
- In a network, leaks occur most commonly at the coupling-adaptor connection (poor quality of design and the seal between components).
- Increasing the pressure provided by compressors by 1 bar results in a 6% to 7% increase in power consumption.

Opt for the prevo *S1* coupling range:
it's quick, safe and guaranteed leak-free!

In the event of a poor connection, the leak may also be due to the adaptor.
To achieve a good connection, both the coupling and the adaptor must be of excellent quality.

	Conventional adaptor	Prevost adaptor
Materials	Brass adaptors are unsuitable as they do not withstand vibrations. Their surface deteriorates very quickly, which may result in disconnection. The adaptor can cause premature damage to the seal, thus generating a leak.	Prevost adaptors are made of nitrided steel and are scratch- and corrosion-resistant.
Standards	An adaptor that does not quite correspond to standardised dimensions and tolerances will not result in a perfect connection with the coupling.	Prevost adaptors comply with all the requirements of the prevailing standards, including the various applicable ISO standards.
Tolerance	Many adaptors do not correspond to the standardised tolerances expected of a top-quality coupling. The adaptor and coupling deteriorate, resulting in a poor connection.	Prevost adaptors comply with the exact dimensions and tolerances prescribed by the prevailing standards.

Example

A 1 mm hole at a pressure of 7 bar results in a loss of 5 m³ per hour of compressed air, i.e. average annual expenditure of €300 excluding VAT (at €0.061 per kWh).

Source: ADEME (France's Agency for the Environment and Energy Management)

It is essential to ensure that the quality of the adaptor is equal to that of the coupling in order to obtain a leaktight and reliable connection.
Choosing good quality hardware ensures savings in terms of energy costs and guarantees the reliability of the network. When making a purchase, it is important to consider not only the purchase price, but also the total costs.



Cost advantages

Thanks to the faultless and long-lasting integrity and reliability of the **prevo *S1*** coupling, it is possible to:

- **prevent any significant pressure loss as air passes through the coupling,**
- **cut energy costs,**
- **use an optimum air flow, ensuring maximum efficiency of pneumatic tools and systems,**
- **achieve productivity gains:**
  ease of use, longer maintenance-free service life.

Configurations

Available in different international profiles





Identification of couplings

- Colour coded international profiles
- Logical part numbering system
- Thread type engraved on product

Part number example:

ISI 061101SW

Implantation type

Cylindrical tapping



- *BSPP*
- *International standard ISO 228/1*

Male cylindrical thread



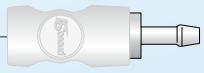
- *BSPP*
- *Built-in gasket*
- *International standard ISO 228/1*

Conical male thread



- *NPT et BSPT*
- *American thread standard ANSI/ASME B 1.20.1 (North-American market)*

Hose coupling

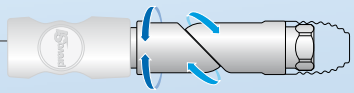


- *Assembly with screw clamp or lug clamp*

Bulkhead penetration

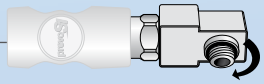


Tapped swivel coupling



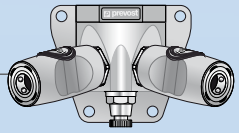
- *360° rotation in two axes*
- *Scratch protection*

Male thread swivel coupler

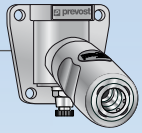


- *Built-in gasket*
- *360° in one axe*

Wall-mounted fitting

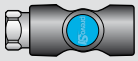
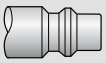
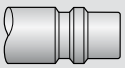
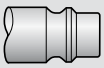
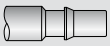
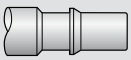
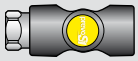
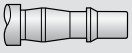
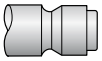
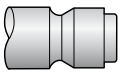


Single wall fitting



I	S	I	06	1	1	01		SW
A: Aro B: British C: ISO C E: European I: ISO B U: Truflate	S: Security R: Regular	I: Prevo S1 P: Adaptator	06: Ø 6 mm 07: Ø 7,4 mm 08: Ø 8 mm 11: Ø 11 mm	1: Coupling 2: Penetration 6: Adaptator 8: Y	1: BSP 2: NPT 8: Hose tail	101: 1/4 female 102: 3/8 female 103: 1/2 female 104: 3/4 female 151: 1/4 male 152: 3/8 male 153: 1/2 male 154: 3/4 male	806 : 6 mm hose Ø 808 : 8 mm hose Ø 809 : 9 mm hose Ø 810 : 10 mm hose Ø 813 : 13 mm hose Ø 816 : 16 mm hose Ø 819 : 19 mm hose Ø	Optional SW: swivel fitting WF: wall fastener SE: swivel coupler HE: stainless steel version

Range prevoS1

PROFILES	PART NUMBERS	SAFETY QUICK COUPLINGS	ID PASSAGE	THREAD	FLOW RATES at 6 bar for ΔP 0,6 bar	FLOW RATES at 100 psi for Δp = 10 psi
ISO 6150 profile B US MIL 4109 	ISI 06		6 mm	BSP/NPT	833 l/min	34 Scfm
ISO 6150 B profile B US MIL 4109 	ISI 08		8 mm	BSP/NPT	2028 l/min	81 Scfm
ISO 6150 profile B US MIL 4109 	ISI 11		11 mm	BSP/NPT	3686 l/min	148 Scfm
European profile 7.2 - 7.4 mm 	ESI 07		7,4 mm	BSP/NPT	1820 l/min	73 Scfm
European profile 7.2 - 7.4 mm (Stainless steel version) 	ESI 07HE		7,4 mm	BSP/NPT	1820 l/min	73 Scfm
European profile 10,4 	ESI 11		10,4 mm	BSP/NPT	3530 l/min	142 Scfm
ISO 6150 C profile 	CSI 06		6 mm	BSP	833 l/min	34 Scfm
ISO 6150 C profile 	CSI 08		8 mm	BSP	2028 l/min	81 Scfm
ARO 210 profile 	ASI 06		6 mm	BSP/NPT	800 l/min	32 Scfm
British profile 	BSI 06		6 mm	BSP	750 l/min	29 Scfm
Truflate profile 	USI 06		6 mm 1/4"	BSP/NPT	833 l/min	34 Scfm
Truflate profile 	USI 08		8 mm 3/8"	BSP/NPT	2028 l/min	81 Scfm
Truflate profile 	USI 11		10 mm 1/2"	BSP/NPT	2987 l/min	120 Scfm

Polymer body



Construction

Body:
composite polyester material

Other components:
steel with RoHS* compliant anti-corrosion treatment, or aluminium

Leaktightness:
NBR O-ring for thread seal

Pressure and temperatures

Service pressure range:
2 to 12 bar
(not suitable for vacuum)

Temperature:
-15°C to 70°C

Construction standards

prevo *S1* couplings comply with:

- the European Pressure Equipment Directive (PED) 97/23/CE
- the safety requirements of the ISO 4414 standard
- the European RoHS* directive 2002/95/CE
- ATEX 2

** Directive RoHS 2002/95/EC on the restriction of the use if certain hazardous substances in electrical and electronic equipment (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls **(PBB)** or polybrominated diphenyl ethers **(PBDE).***

Advantages exclusive to the **prevo *S1*** *composite body*

Ultra-lightweight:

74 g for couplings with 6 mm clearance (hose outlet)
113 g for couplings with 8 mm clearance (hose outlet)

Non-scratch:

No damage to vulnerable surfaces

Anti-static:

Electrically conducting, thus avoiding problems relating to static electricity (e.g. dust attracted to the paint/polish/electronic work surface). - ATEX 2

Versatile coupling:

< 80 N at 6 bar for couplings with 6 mm clearance
< 100 N at 6 bar for couplings with 7.4 and 8 mm clearance
Unit of measurement N = Newton

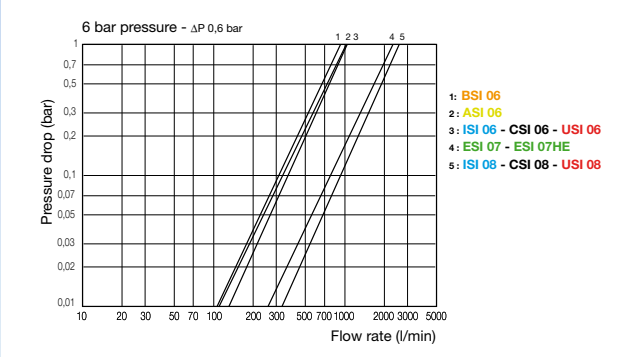
Applications:

- All connections with or without safety mechanism
- Assembly lines (automotive, household appliances, etc.)
- Mechanical manufacturing, machining workshops
- Paper and printing industries
- Automotive repairs
- Textile industries
- Wood and plastics industries
- Any work involving vulnerable environments or products
- Technical education

Flow rate at 6 bar with ΔP of 0.6 bar

PROFILES	ISO B ID passage 6 mm	ISO C ID passage 6 mm	ARO ID passage 6 mm	British ID passage 6 mm	Truflate ID passage 6 mm - 1/4'	European ID passage 7.4 mm	ISO B ID passage 8 mm	ISO C ID passage 8 mm	Truflate ID passage 8 mm - 3/8'
Prevost part numbers	ISI 06	CSI 06	ASI 06	BSI 06	USI 06	ESI 07	ISI 08	CSI 08	USI 08
Flow rates l/min	**833**	**833**	**800**	**750**	**833**	**1820**	**2028**	**2028**	**2028**
Prevost part numbers Compatible adaptator	IRP 06	CRP 06	ARP 06	BRP 06	URP 06	ERP 07	IRP 08	CRP 08	URP 08

Pneumatic flow rate/pressure loss curves



Metal body

prevoS1



Construction

- **Body:**
  17% chromium stainless steel
- **Other components:**
  steel with RoHS* compliant anti-corrosion treatment, or aluminium
- **Leaktightness:**
  NBR O-ring for thread seal
- **Push button:**
  composite material

Pressure and temperatures

- **Service pressure range:**
  2 to 16 bar
  (not suitable for vacuum)
- **Temperature:**
  -15°C to 70°C

Construction standards

- **prevo *S1* couplings comply with:**
  - the European Pressure Equipment Directive (PED) 97/23/CE
  - the safety requirements of ISO 4414 standard
  - the European RoHS* directive 2002/95/CE

** Directive RoHS 2002/95/EC on the restriction of the use if certain hazardous substances in electrical and electronic equipment (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls **(PBB)** or polybrominated diphenyl ethers **(PBDE).***

Advantages exclusive to the metal **prevo *S1*** *with 11 mm clearance*

Very large air flow
enabling users to work with even the largest pneumatic tools at full capacity

Very high resistance couplings
suited to the most challenging conditions for which this type of product may be required, including violent impacts, crushing, dirty or damp environments, etc.

Recommended in all industries known to set extremely high standards, such as public works, shipbuilding, maintenance of heavy goods vehicles, mining and offshore drilling, etc.

Extremely flexible and easy to connect
the adaptor to the coupling thanks to the innovative design of the internal mechanism

Easy and safe handling
even when wearing gloves

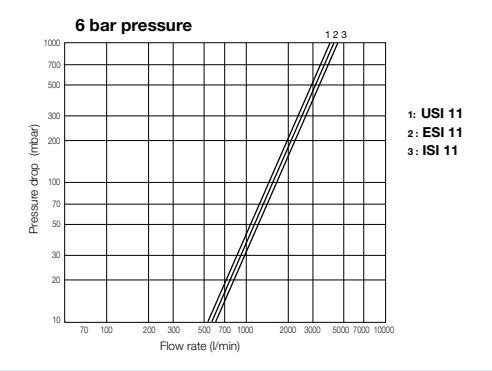
Coupling force at 6 bar
< 160 N at 6 bar
Unit of measurement N = Newton

Applications:
- Heavy duty
- Maintenance of industrial vehicles, agriculture, public works, mines and quarries, etc.
- Heavy industry and manufacturing, iron and steel production, foundries, cement works, etc.

Flow rate at 6 bar with ΔP of 0.6 bar

PROFILES	ISO B ID passage 11 mm	European ID passage 10,4 mm	Truflate ID passage 11 mm - 1/2’
Prevost part numbers	ISI 11	ESI 11	USI 11
Flow rates l/min	**3686**	**3530**	**2987**
Prevost par numbers Compatibles adaptators	IRP 11	ERP 11	URP 11

Pneumatic flow rate/ pressure loss curves



Self-service access to prevoS1 couplings



Individually packaged couplings, an ideal format for self-service access!

Features of packaging

- **Perforated black plastic board**
- **Size: 155 mm × 45 mm**
- **Label summarising the main features of the product**
- **Coupling firmly attached to the board using Colson ties**
- **Barcode on rear side of board**



An ideal way to dynamise sales

- **Easy to set up on your sales floor** (couplings are delivered already attached to the boards)
- **Robust display stand**
- **Size of the boards** calculated to make optimum use of the space available
- **Attractive display** enabling easy handling and access to the products
- **Couplings firmly fastened to the boards,** ensuring that packaging remains intact despite handling by customers with self-service access.
- **Optimum visibility** and presentation of products as the display is clear and simple.

prevo *S1* couplings with individual packaging are available in a number of international profiles: ISO 6150B, ISO 6150C, EUROPEAN 7.2 – 7.4, BRITISH and TRUFLATE.

Head Office : PREVOST SAS
Parc d'activités des Glaisins - C.S. 90208
74942 ANNECY-LE-VIEUX CEDEX - FRANCE
Tél. +33 (0)4 50 64 04 45 - Fax +33 (0)4 50 64 00 10
E-mail : sales@prevost.eu - www.prevost.eu

PREVOST UK
The Pavilions - Bridgefold road
Rochdale OL11 5BX - United Kingdom
Tel (+44) 0844 800 2788 - Fax (+44) 0844 800 2789
Email: sales@prevos-ltd.co.uk - www.prevost.eu



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Authorised distributor

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