

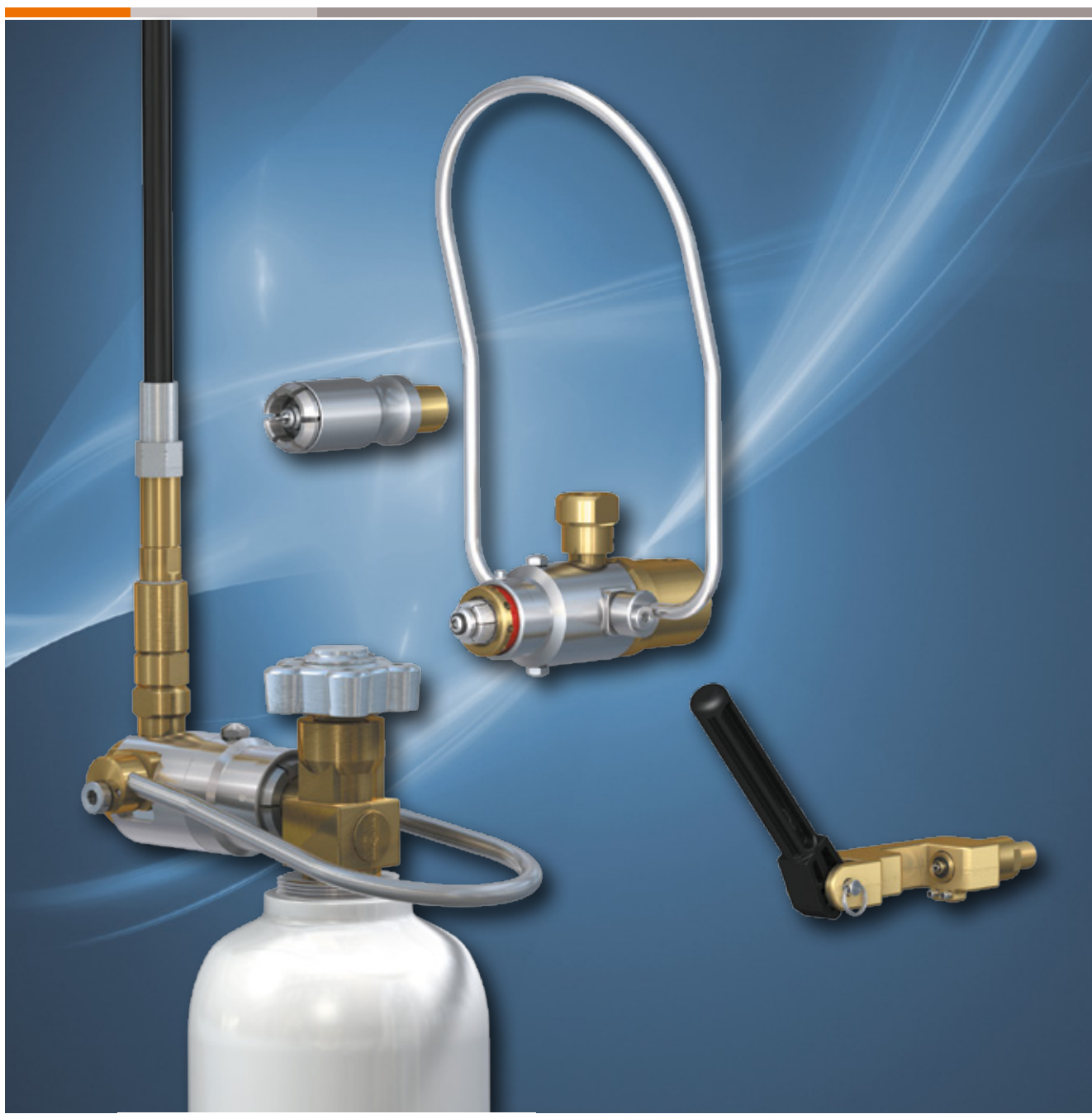
Catalogue 20

WEH[®] Connectors

**Pressure-tight connections in seconds
for gaseous applications**

Connection solutions for the gas industry

Date: 04/2013



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» Introduction

WEH® – INNOVATIVE CONNECTORS FOR GAS CYLINDER FILLING

Since 1983 WEH has been developing the world's most technically advanced quick connector solutions for the gas filling industry - and in the process improving productivity and operator health and safety immensely. New solutions had to be found satisfying more and more demanding requirements for safety and leak tightness of products used for filling gaseous media at high-pressure. Today a complete product range is available for a large variety of gases and gas mixtures, e.g. inert gases, oxygen, nitrogen, propane, acetylene, CO₂, medical gases etc.

A suitable WEH® Connector is available for valve configurations having internal or external threads (with or without a residual pressure valve) or PIN-Index connections.

The WEH® Connector connects directly to the cylinder valve thread using the corresponding national standard, e.g. DIN, CGA, BS, NF and CEN and provides a pressure-tight connection in seconds.

The quick connectors are made of stainless steel and brass and the seals are specially selected to suit the corresponding media.

Unique WEH® Jaw locking mechanism

All quick connectors have the unique jaw locking mechanism developed by WEH.

The jaw locking mechanism is superior to hand tightening systems in that it tolerates dirt and reduces wear on the cylinder valve.

The quick connector is placed onto or into the cylinder valve, the operating loop or lever is moved down and the pressure-tight connection is made.



Benefits

- Connection in seconds directly to the cylinder valve thread
- Integrated safety peg prevents disconnection under pressure
- Unique WEH® Jaw locking mechanism
- Compact design

High safety standard due to enhanced test procedures

Quick connectors for gas filling applications are designed to meet demanding technical, commercial and health requirements from customers. Therefore all connectors are subjected to 100,000 cycles of extensive pressure and durability tests in our own testing laboratory.

All connectors conform to the Pressure Equipment Directive (PED).

Connectors for filling oxygen are oxygen cleaned and are subjected to an additional adiabatic ignition test.

Extensive range of accessories

All WEH® Connectors are adapted to specific customer requirements. Cylinders with and without safety caps can be filled. A large variety of actuations is available - loops, wire ropes etc. - for different cylinder sizes.

A swivel joint enabling the axial alignment of the WEH® Connector to the cylinder valve thread when connecting is available for ease of operation. Check valves and filters complete the product range.



TW54 with special loop



TW54 with swivel joint



TW57 with wire rope
and locking device



TW17 with lever handle

Increase your productivity using WEH® Filling rigs

WEH also offers linear and radial filling rigs equipped with WEH® Connectors for automated filling cycles thus improving efficiency and reducing the connection and filling times to a minimum.

Overview

OVERVIEW WEH® CONNECTORS

Overview filling connectors										
Type	Page	Max. operating pressure PS	Norms / standards				Connection			Version RPV / Non-RPV
			DIN	CGA	BS	NF	Internal thread	External thread	Pin-Index	
TW54	8	250 bar 375 bar	✓	✓	✓	✓	✓			✓
TW57	12	250 bar 375 bar	✓	✓	✓	✓		✓		✓
TW101	16	250 bar	✓	✓	✓	✓	✓			✓*
TW102	18	250 bar	✓	✓	✓	✓		✓		✓*
TW52	20	250 bar 150 bar	✓	✓	✓	✓		✓		✓
TW152	24	250 bar	✓	✓	✓	✓		✓		✓
TW42	28	250 bar		✓					✓	✓
TW49	30	250 bar		✓					✓	
TW53	32	30 bar	✓							
TW59	34	30 bar	✓					✓		
TW67	36	250 bar 375 bar	✓	✓	✓	✓		✓		✓
Overview testing connectors										
Type	Page	Max. operating pressure PS	Norms / standards				Connection			Version RPV / non-RPV
			DIN	CGA	BS	NF	Internal thread	External thread	Pin-Index	
TW17	42	350 bar	✓					✓		
TW117	46	450 bar	✓					✓		

* Non-residual pressure valve on request

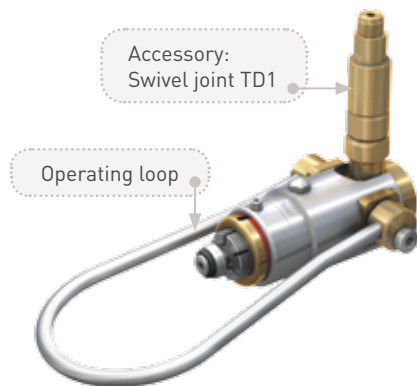
ORDERING

Normally we need the following information when ordering:

1. Part No. / connection sizes
2. National standard
3. Pressure range
4. Medium / requested leak rate
5. Description of application
6. Temperature range
7. CAD drawing of customer test piece
8. Test piece

WEH® Connector TW54

DESCRIPTION



Features

- For gas cylinders with internal thread
- Version for **residual pressure valves or non-residual pressure valves** available
- Connection in seconds
- No hand tightening required
- Easy to connect
- Right-hand and left-hand operation
- Suitable for pallet filling
- WEH® Jaw locking mechanism
- Compact design
- High-grade materials

The type TW54 quick connector for gas cylinder valves with internal thread provides a pressure-tight connection in seconds. The split collet design system locks securely into the cylinder valve thread and seals tightly.

Safety features

A fully developed design with simple actuation controlling the functioning of the gas connector. The quick connector cannot be disconnected under pressure because a special safety peg protrudes and locks the connector against removal.

The TW54 quick connector has a red marking at the front part of the connector (see opposite picture) which shows when a proper connection has been made.

Type TW54 for oxygen has venting bores (see opposite picture) in the front sleeve for lateral venting of gas in case of accidental gas leakage, thus preventing pressure built-up in the connector.



TW54 with RPV pin and venting bores

The TW54 is available for 200 bar and 300 bar systems.

This quick connector is available for gas cylinder valves acc. to DIN, BS, NF, CGA etc. Connectors for oxygen applications are oxygen cleaned and free of oil and grease.

Application

Quick connector for filling of gas cylinders with internal thread (with or without a residual pressure valve).

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 200 bar PS = 250 bar PT = 375 bar PN = 300 bar PS = 375 bar PT = 565 bar
Temperature range	+5 °C up to +80 °C +5 °C up to +60 °C [O ₂]
Connection A	Internal thread connection acc. to the corresponding national standard e.g. DIN, CGA, BS, NF etc.
Medium	Oxygen, nitrogen, CO ₂ , air, inert gases, medical gases
Actuation	Manual actuation via operating loop (loop depending on type of gas cylinder)
Material	Corrosion resistant stainless steel, brass
Sealing material	Acc. to gas type
Design	With or without RPV pin
Registration	PED97/23/EC: CE0036 Adiabatic ignition test available

Other designs on request

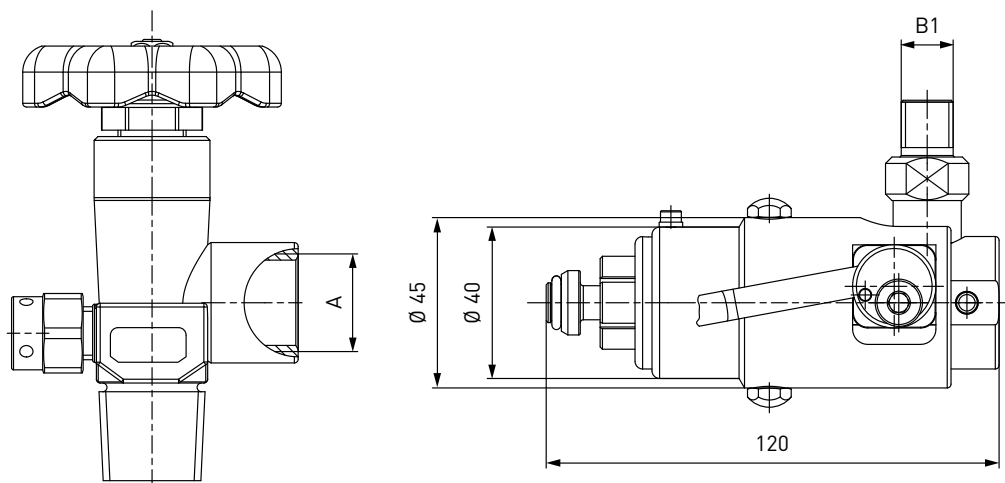
Example of use:



WEH® Connector TW54

ORDERING | Quick connector TW54 for non-residual pressure valves

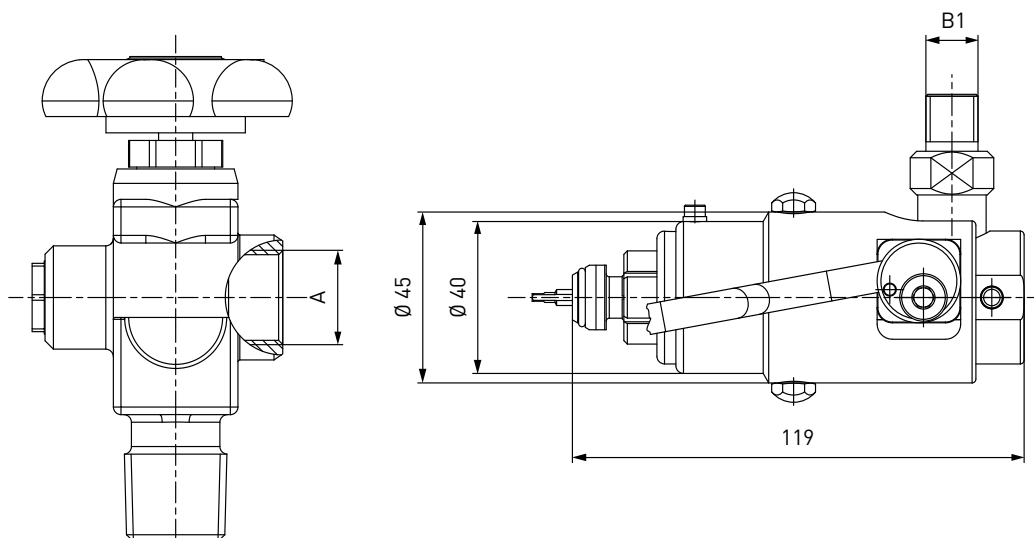
approx. dimensions (mm)



Part No.	Description	Pressure (PN)	Connection A	Inlet B1 (external thread)
On request	TW54	200 bar	On request	On request
On request	TW54	300 bar	On request	On request

ORDERING | Quick connector TW54 for residual pressure valves

approx. dimensions (mm)



Part No.	Description	Pressure (PN)	Connection A	Inlet B1 (external thread)
On request	TW54	200 bar	On request	On request
On request	TW54	300 bar	On request	On request

Other connector sizes and versions on request.

Required information for ordering see page 7.

» WEH® Connector **TW54**

ACCESSORIES

The following accessories are available for type TW54:

Swivel joint TD1 *(see page 58)*

Quick release coupling TK350-TN350 *(see page 54)*

Actuations

For type TW54 various actuations, e.g. loops, wire ropes, manual lever handles etc. are available in different sizes and forms. Please contact us!

Locking devices

Additional locking devices are also available for type TW54. Please contact us!

Connection for pressure gauges

Quick connector incl. pressure gauge connection and venting valve for pressure monitoring of filled gas cylinders.



Part No.	Description
On request	TW54 incl. pressure gauge connection and venting valve

» WEH® Connector TW54

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

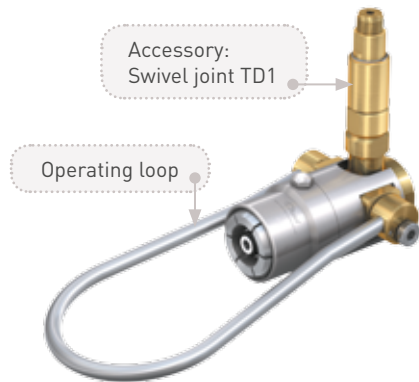
Spare parts

Various parts are available as spares for type TW54:

Part No.	Description
On request	Spare seals

WEH® Connector TW57

DESCRIPTION



Features

- For gas cylinders with external thread
- Version for **residual pressure valves or non-residual pressure valves** available
- Connection in seconds
- No hand tightening required
- Easy to connect
- Right-hand and left-hand operation
- Suitable for pallet filling
- WEH® Jaw locking mechanism
- Compact design
- High-grade materials

The type TW57 quick connector for gas cylinder valves with external thread provides a pressure-tight connection in seconds. The split collet design system locks securely onto the cylinder valve thread and seals tightly.

Safety features

A fully developed design with simple actuation controlling the functioning of the gas connector. The quick connector cannot be disconnected under pressure because a special safety peg protrudes and locks the connector against removal.

Type TW57 for oxygen has venting bores (see opposite picture) in the front sleeve for lateral venting of gas in case of accidental gas leakage, thus preventing pressure built-up in the connector.



TW57 with RPV pin and venting bores

The TW57 is available for 200 bar and 300 bar systems.

This quick connector is available for gas cylinder valves acc. to DIN, BS, NF, CGA etc. Connectors for oxygen applications are oxygen cleaned and free of oil and grease.

Application

Quick connector for filling of gas cylinders with external thread (with or without a residual pressure valve).

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 200 bar PS = 250 bar PT = 375 bar PN = 300 bar PS = 375 bar PT = 565 bar
Temperature range	+5 °C up to +80 °C +5 °C up to +60 °C (O ₂)
Connection A	External thread connection acc. to the corresponding national standard e.g. DIN, CEN, CGA, BS, NF etc.
Medium	Oxygen, nitrogen, CO ₂ , air, inert gases, medical gases
Actuation	Manual actuation via operating loop (loop depending on type of gas cylinder)
Material	Corrosion resistant stainless steel, brass
Sealing material	Acc. to gas type
Design	With or without RPV pin
Registration	PED97/23/EC: CE0036 Adiabatic ignition test available

Other designs on request

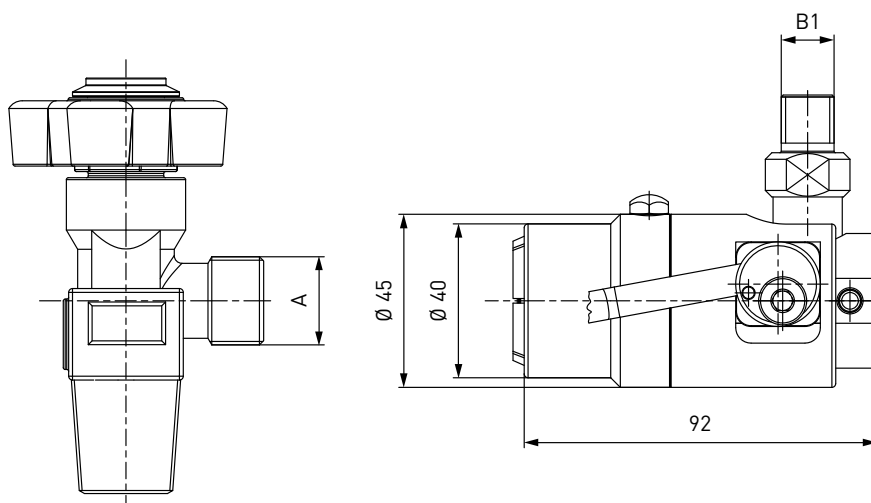
Example of use:



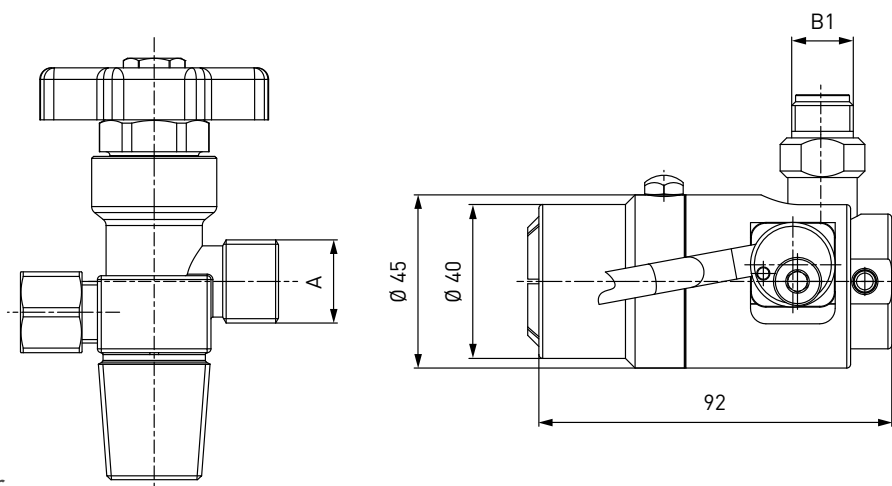
WEH® Connector TW57

ORDERING | Quick connector TW57 for non-residual pressure valves

approx. dimensions (mm)



Quick connector TW57 - 200 bar



Quick connector TW57 - 300 bar



Part No.	Description	Pressure (PN)	Connection A	Inlet B1 (external thread)
On request	TW57	200 bar	On request	On request
On request	TW57	300 bar	On request	On request

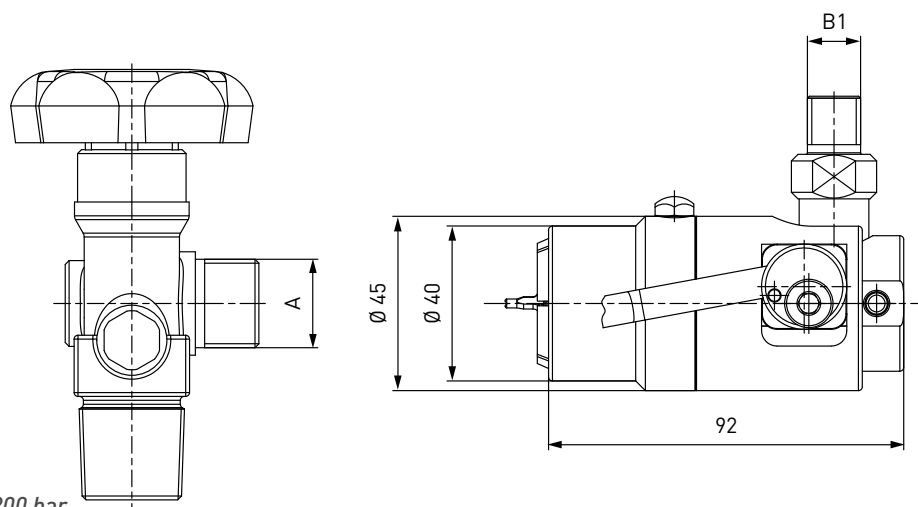
Other connector sizes and versions on request.

Required information for ordering see page 7.

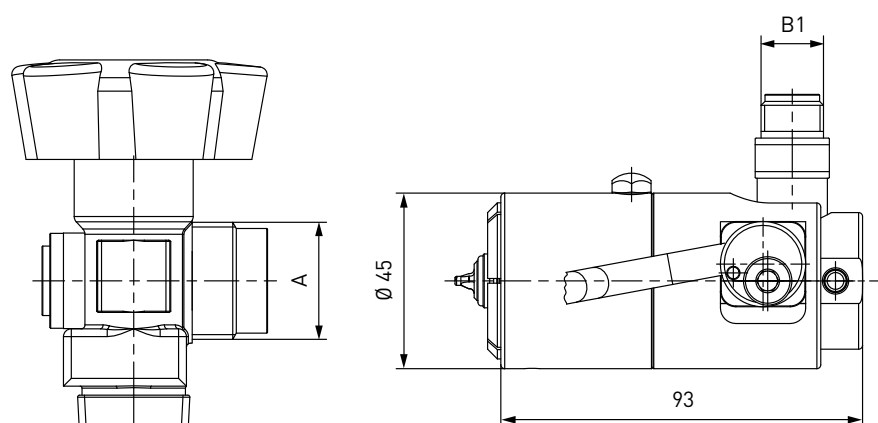
WEH® Connector TW57

ORDERING | Quick connector TW57 for residual pressure valves

approx. dimensions (mm)



Quick connector TW57 RPV - 200 bar



Quick connector TW57 RPV - 300 bar



Part No.	Description	Pressure (PN)	Connection A	Inlet B1 (external thread)
On request	TW57	200 bar	On request	On request
On request	TW57	300 bar	On request	On request

Other connector sizes and versions on request.

Required information for ordering see page 7.

» WEH® Connector TW57

ACCESSORIES

The following accessories are available for type TW57:

Swivel joint TD1 *(see page 58)*

Quick release coupling TK350-TN350 *(see page 54)*

Actuations

For type TW57 various actuations, e.g. loops, wire ropes, manual lever handles etc. are available in different sizes and forms. Please contact us!

Locking devices

Additional locking devices are also available for type TW57. Please contact us!

Connection for pressure gauges

Quick connector incl. pressure gauge connection and venting valve for pressure monitoring of filled gas cylinders.



Part No.	Description
On request	TW57 incl. pressure gauge connection and venting valve

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

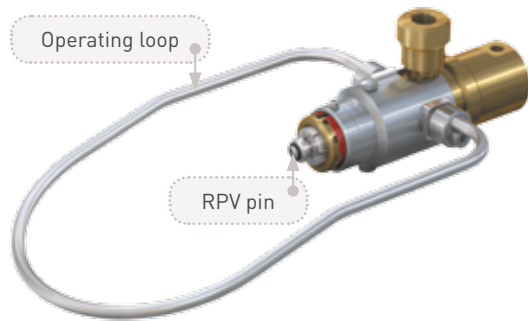
Spare parts

Various parts are available as spares for type TW57:

Part No.	Description
On request	Spare seals

» WEH® Connector TW101

DESCRIPTION



Features

- For gas cylinders with internal thread and pressure regulator
- Connection in seconds
- No hand tightening required
- Easy to connect
- WEH® Jaw locking mechanism
- Compact design
- High-grade materials

The type TW101 quick connector for gas cylinder valves with internal thread and pressure regulator provides a pressure-tight connection in seconds. The split collet design system locks securely into the cylinder valve thread and seals tightly. The residual pressure valve on the gas cylinder valve opens pneumatically. On request the opening can also be effected manually via hand lever.

Safety features

A fully developed design with simple actuation controlling the functioning of the gas connector. The quick connector cannot be disconnected under pressure because a special safety peg protrudes and locks the connector against removal.

The TW101 quick connector has a red marking at the front part of the connector (see opposite picture) which shows when a proper connection has been made.

Type TW101 for oxygen has venting bores (see opposite picture) in the front sleeve for lateral venting of gas in case of accidental gas leakage, thus preventing pressure built-up in the connector.



Red marking and venting bores

This quick connector is available for gas cylinder valves acc. to DIN, BS, NF, CGA etc. Connectors for oxygen applications are oxygen cleaned and free of oil and grease.

Application

Quick connector for filling and evacuating of gas cylinders with internal thread and pressure regulator.

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 200 bar PS = 250 bar PT = 375 bar
Pilot pressure	Max. 6 - 8 bar (for opening residual pressure valve)
Temperature range	+5 °C up to +60 °C [O ₂]
Connection A	Internal thread connection acc. to the corresponding national standard e.g. DIN, CGA, BS, NF etc.
Medium	Medical oxygen
Actuation	Manual actuation via operating loop (loop depending on type of gas cylinder) Opening / closing of the RPV pin in the valve: via pneumatic pilot pressure line
Material	Corrosion resistant stainless steel, brass
Sealing material	EPDM
Design	Incl. adaptor and RPV pin
Registration	PED 97/23/EC: CE0036 Adiabatic ignition test available

Other designs on request

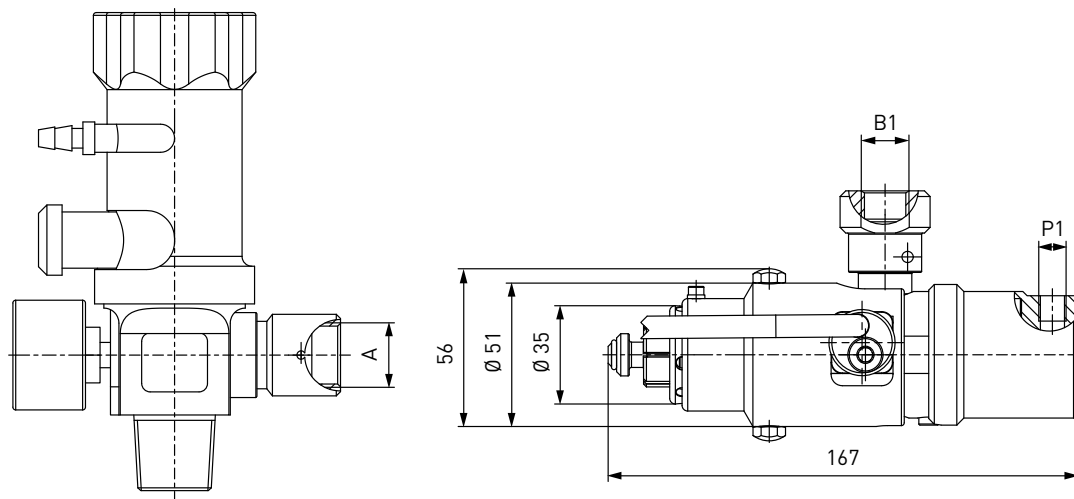
Example of use:



WEH® Connector TW101

ORDERING | Quick connector TW101

approx. dimensions (mm)



Part No.	Description	Connection A	Inlet B1	Pilot pressure port P1 (internal thread)
On request	TW101	On request	On request	G1/8"

Other connector sizes and versions on request.

Required information for ordering see page 7.

ACCESSORIES

The following accessories are available for type TW101:

Swivel joint TD1 (see page 58)

Actuations

For type TW101 various actuations, e.g. loops, wire ropes, manual lever handles etc. are available in different sizes and forms. Please contact us!

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

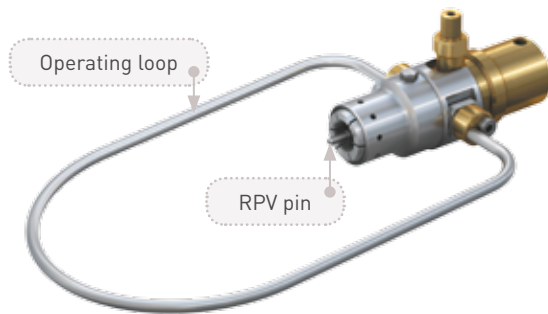
Spare parts

Various parts are available as spares for type TW101:

Part No.	Description
On request	Spare seals

» WEH® Connector TW102

DESCRIPTION



Features

- For gas cylinders with external thread and pressure regulator
- Connection in seconds
- No hand tightening required
- Easy to connect
- WEH® Jaw locking mechanism
- Compact design
- High-grade materials

The type TW102 quick connector for gas cylinder valves with external thread and pressure regulator provides a pressure-tight connection in seconds. The split collet design system locks securely onto the cylinder valve thread and seals tightly. The residual pressure valve on the gas cylinder valve opens pneumatically. On request the opening can also be effected manually via hand lever.

Safety features

A fully developed design with simple actuation controlling the functioning of the gas connector. The quick connector cannot be disconnected under pressure because a special safety peg protrudes and locks the connector against removal.

Type TW102 for oxygen has venting bores (see opposite picture) in the front sleeve for lateral venting of gas in case of accidental gas leakage, thus preventing pressure built-up in the connector.



Venting bores

This quick connector is available for gas cylinder valves acc. to DIN, BS, NF, CGA etc. Connectors for oxygen applications are oxygen cleaned and free of oil and grease.

Application

Quick connector for filling and evacuating of gas cylinders with external thread and pressure regulator.

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 200 bar PS = 250 bar PT = 375 bar
Pilot pressure	Max. 6 - 8 bar (for opening residual pressure valve)
Temperature range	+5 °C up to +60 °C (O ₂)
Connection A	External thread connection acc. to the corresponding national standard e.g. DIN, CGA, BS, NF etc.
Medium	Medical oxygen
Actuation	Manual actuation via operating loop (loop depending on type of gas cylinder) Opening / closing of the RPV pin in the valve: via pneumatic pilot pressure line
Material	Corrosion resistant stainless steel, brass
Sealing material	EPDM
Design	Incl. adaptor and RPV pin
Registration	PED 97/23/EC: CE0036 Adiabatic ignition test available

Other designs on request

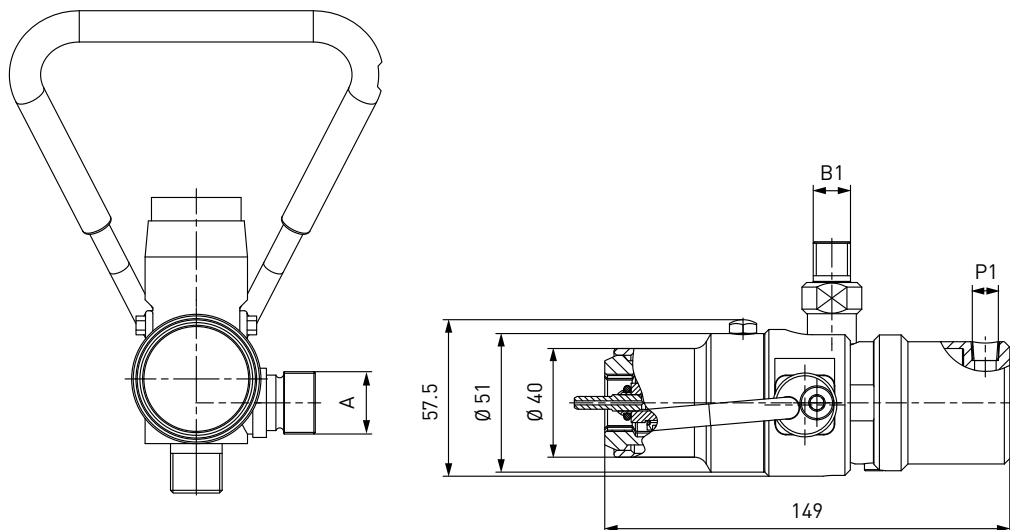
Example of use:



>> WEH® Connector TW102

ORDERING | Quick connector TW102

approx. dimensions (mm)



Part No.	Description	Connection A	Inlet B1	Pilot pressure port P1 (internal thread)
On request	TW102	On request	On request	NPT 1/8"

Other connector sizes and versions on request.

Required information for ordering see page 7.

ACCESSORIES

The following accessories are available for type TW102:

Swivel joint TD1 *(see page 58)*

Actuators

For type TW102 various actuators, e.g. loops, wire ropes, manual lever handles etc. are available in different sizes and forms. Please contact us!

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

Spare parts

Various parts are available as spares for type TW102:

Part No.	Description
On request	Spare seals

WEH® Connector TW52

DESCRIPTION



Features

- Suitable for filling of CO₂ or refrigerants
- Version for **residual pressure valves or non-residual pressure valves** available
- Connection in seconds
- No hand tightening required
- High safety due to pressure-assisted piston
- Environmentally friendly - a vent pipe recirculates the vented gas (in conjunction with TVCO₂)
- WEH® Jaw locking mechanism
- High-grade materials

The type TW52 quick connector has been developed especially for filling gas cylinders with gaseous and liquid CO₂ or refrigerants. Connection to the cylinder is made within seconds without tedious screwing and unscrewing, thus preventing RSI resulting in the inflammation of tendons and abrasion of joints.

The connector is also suitable for filling one litre cylinders, e.g. for soda drinks.

Type TW52 is optionally available with the TVCO₂ linear valve.

This quick connector is available for gas cylinder valves acc. to DIN, BS, NF, CGA etc.

Application

Quick connector for filling of gas cylinders with external thread (with or without a residual pressure valve) with CO₂ or refrigerants.

TECHNICAL DATA

Characteristic	Basic version
Nominal bore DN	5 mm
Operating pressure PS	Max. 250 bar Max. 150 bar (TW52 with TVCO ₂ linear valve)
Temperature range	-40 °C up to +40 °C (CO ₂)
Connection A	External thread connection acc. to the corresponding national standard e.g. DIN, CGA, BS, NF etc.
Medium	CO ₂ , refrigerants
Actuation	Manual actuation via grip sleeve
Material	Corrosion resistant stainless steel, brass
Sealing material	EPDM
Design	With or without RPV pin
Registration	PED97/23/EC: CE0036 (not valid for TVCO ₂)

Other designs on request

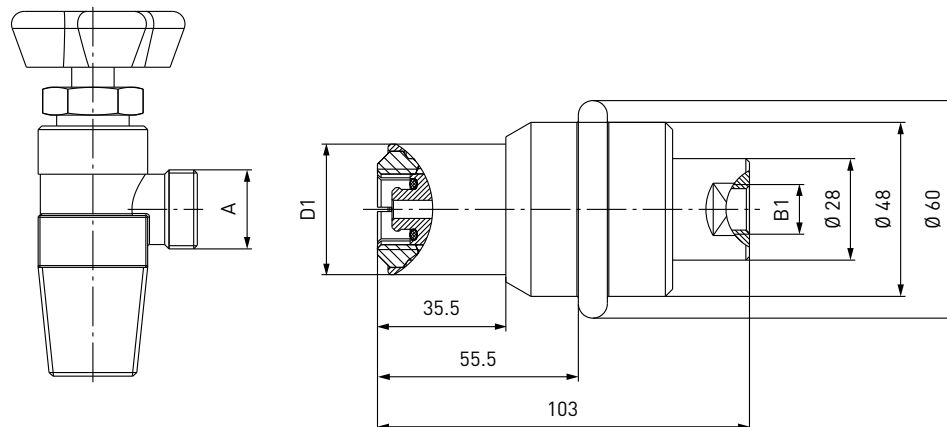
Example of use:



WEH® Connector **TW52**

ORDERING | Quick connector TW52 for non-residual pressure valves

approx. dimensions (mm)

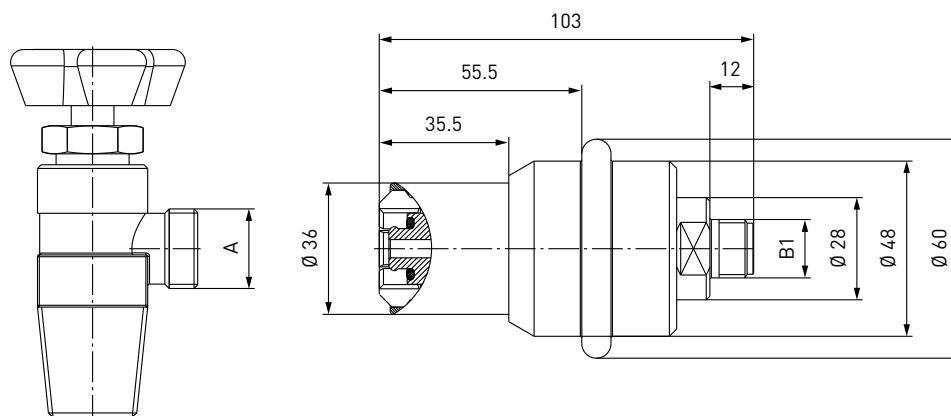


Part No.	Description	Connection A (external thread)	Inlet B1 (internal thread)	D1
C1-16560	TW52	G1/2"	G1/4"	38
C1-17069	TW52	TR21x4,5	G1/4"	36
C1-16564	TW52	W21.8x1/14"*	G1/4"	36

* acc. to DIN 477

ORDERING | Quick connector TW52 for non-residual pressure valves (suitable for TVCO₂ linear valve)

approx. dimensions (mm)



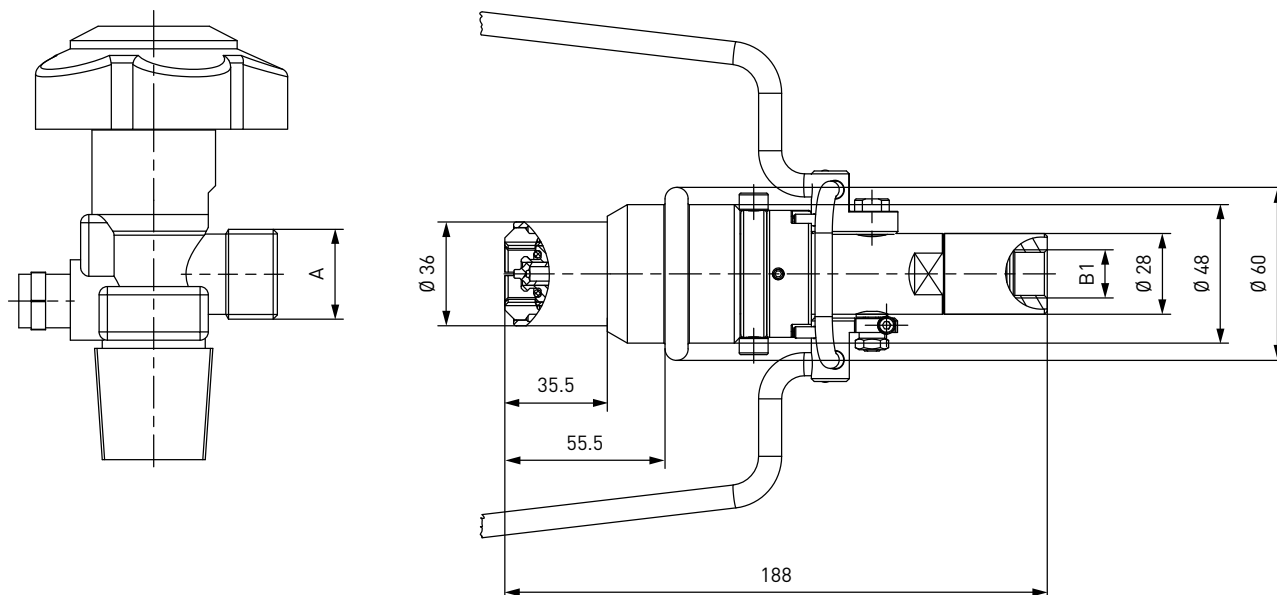
Part No.	Description	Connection A (external thread)	Inlet B1 (external thread)
C1-16563	TW52	W21.8x1/14"*	M16x1.5

* acc. to DIN 477

WEH® Connector TW52

ORDERING | Quick connector TW52 for residual pressure valves (incl. linear valve)

approx. dimensions (mm)



Part No.	Description	Connection A (external thread)	Inlet B1 (internal thread)
C1-68486	TW52	W21.8x1/14"*	G3/8"

* acc. to DIN 477

Other connector sizes and versions on request.

Required information for ordering see page 7.

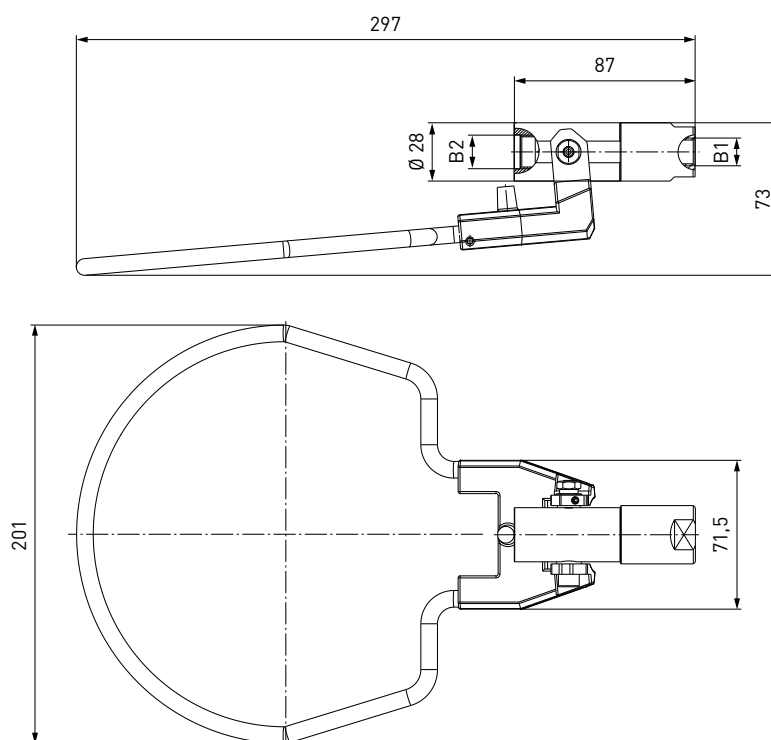
WEH® Connector TW52

ACCESSORIES

The following accessories are available for type TW52:

Linear valve TVCO₂

The type TW52 offers a complete solution for TVCO₂ filling in conjunction with our optional TVCO₂ linear valve. Simply connect the filling hose to our TVCO₂ linear valve and pressurize the system. Filling can then proceed. When disconnecting after filling the TW52 vents automatically. The vented gas can be recirculated via a vent pipe and vented remotely, with minimum environmental impact.



Part No.	Description	Connection B1 (internal thread)	Connection B2 (internal thread)
C1-34605	TVCO ₂	G1/4"	M16x1.5

Other connector sizes and versions on request.

Required information for ordering see page 7.

WEH® Connector TW152

DESCRIPTION



Features

- For oxygen cylinders with external thread (with or without a residual pressure valve) and pressure regulator
- Connection in seconds
- No hand tightening required
- Automatic locking of the sliding sleeve under pressure prevents disconnection at pressures exceeding 5 bar
- Inline or 90° version available
- WEH® Jaw locking mechanism
- High-grade materials

The type TW152 quick connector is designed to achieve easier and more efficient filling of oxygen cylinders because it can be connected directly to the standard thread of the cylinder valve.

The function is quite simple: pull back the sliding sleeve and place the filling connector onto the external thread of the cylinder valve. The split collet design system locks securely onto the cylinder valve thread and seals tightly.

The connector has an internal locking mechanism preventing disconnection under pressure. Type TW152 can be connected to cylinder valves with or without residual pressure valves and valves with integrated pressure regulators. Due to its compact design, it is also suitable for use in confined spaces.

This quick connector is available for gas cylinder valves acc. to DIN, BS, NF, CGA etc. Connectors for oxygen applications are oxygen cleaned and free of oil and grease.



TW152 with RPV pin

Application

Quick connector for filling of oxygen cylinders with external thread (with or without a residual pressure valve) and pressure regulator.

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 200 bar PS = 250 bar PT = 375 bar
Temperature range	+5 °C up to +60 °C (O ₂)
Connection A	External thread connection acc. to the corresponding national standard e.g. DIN, CGA, BS, NF etc.
Medium	Medical oxygen
Actuation	Manual actuation via sliding sleeve
Material	Corrosion resistant stainless steel, brass
Sealing material	EPDM
Design	With or without RPV pin
Registration	PED 97/23/EC: CE0036 Adiabatic ignition test available

Other designs on request

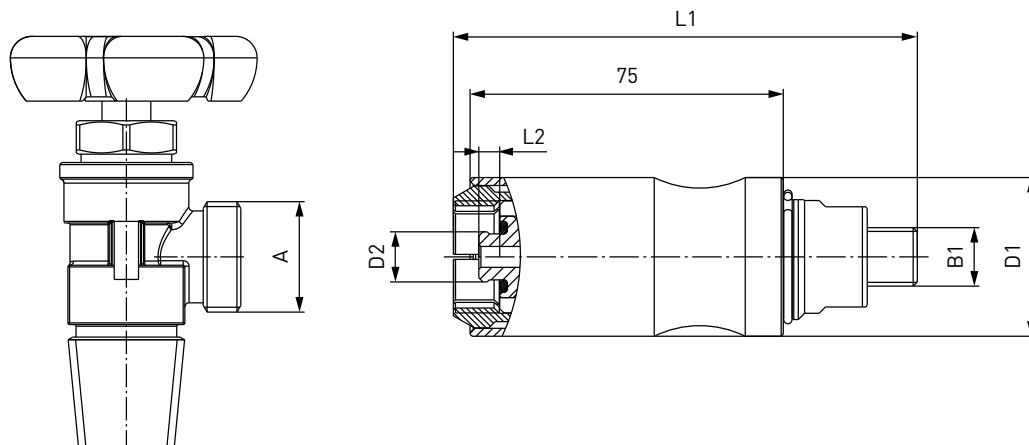
Example of use:



WEH® Connector TW152

ORDERING | Quick connector TW152 with inline media inlet

approx. dimensions (mm)



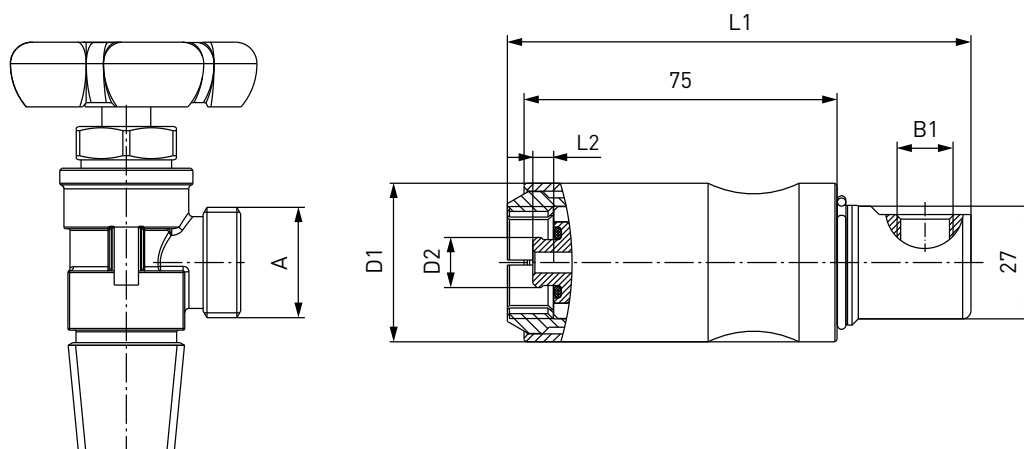
Part No.	Description	Connection A (external thread)	Inlet B1 (external thread)	D1	D2	L1	L2
C1-59488	TW152	G3/4" <i>DIN 477 part 1</i>	NPT 1/4"	38	12	111	5
C1-62956	TW152	W21.8x1/14" <i>DIN 477 part 1</i>	NPT 1/4"	38	12	111	5
C1-47060	TW152	0.903-14 NGO-RH <i>CGA 540</i>	NPT 1/4"	38	-	111	-
C1-55583*	TW152	0.903-14 NGO-RH <i>CGA 540</i>	NPT 1/4"	38	-	122	-

* with RPV pin

WEH® Connector TW152

ORDERING | Quick connector TW152 with 90° media inlet

approx. dimensions (mm)



Part No.	Description	Connection A (external thread)	Inlet B1 (internal thread)	D1	D2	L1	L2
C1-59489	TW152	G3/4" <i>DIN 477 part 1</i>	NPT 1/4"	38	12	111	5
C1-62957	TW152	W21.8x1/14" <i>DIN 477 part 1</i>	NPT 1/4"	38	12	111	5
C1-49930	TW152	0.903-14 NGO-RH <i>CGA 540</i>	NPT 1/4"	38	-	111	-
C1-55579*	TW152	0.903-14 NGO-RH <i>CGA 540</i>	NPT 1/4"	38	-	122	-

* with RPV pin

Other connector sizes and versions on request.

Required information for ordering see page 7.

» WEH® Connector TW152

ACCESSORIES

The following accessories are available for type TW152:

Swivel joint TD1 *(see page 58)*

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

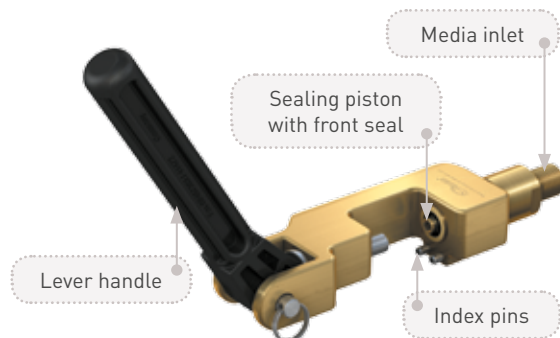
Spare parts

Various parts are available as spares for type TW152:

Part No.	Description
E50-109S614	O-ring (for C1-59489, C1-62956, C1-59488, C1-62957)
E50-069S614	O-ring (for C1-55583, C1-55579)
E50-46786-S611	O-ring (for C1-47060, C1-49930)

» WEH® Connector TW42

DESCRIPTION



Features

- For Pin-Index connections acc. to CGA 870 (others on request)
- Version for **residual pressure valves or non-residual pressure valves** available
- Super light ➔ only 700 grams
- Open bow body for connection in seconds
- Pressure-assisted piston prevents accidental disconnection under pressure
- High-grade materials

The type TW42 quick connector is especially designed for filling gas cylinders with Pin-Index system (with or without a residual pressure valve). The connector is very light in weight and therefore easy to operate.

Being open at one side the quick connector is easy to connect, especially to cylinder valves with large hand wheel and lateral gauge.

Simply place the connector body of the TW42 quick connector over the cylinder valve, align it with the index pins and move upwards. The pressure-tight connection is made.

The pressure-assisted piston prevents accidental disconnection under pressure and provides additional safety.

For gas cylinders with residual pressure valve the TW42 quick connector is additionally equipped with a RPV pin (see opposite picture) for opening the residual pressure valve.

This quick connector is available for gas cylinder valves acc. to CGA 870, others on request. Connectors for oxygen applications are oxygen cleaned and free of oil and grease.



Application

Quick connector for filling of gas cylinders with Pin-Index system (with or without a residual pressure valve).

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 200 bar PS = 250 bar PT = 375 bar
Temperature range	+5 °C up to +60 °C (O ₂)
Connection A	Pin-Index connection acc. to CGA 870 (others on request)
Medium	Medical oxygen (others on request)
Actuation	Manual actuation via lever handle
Material	Corrosion resistant stainless steel, brass
Sealing material	EPDM (others on request)
Design	With or without RPV pin
Registration	PED97/23/EC: CE0036 Adiabatic ignition test available

Other designs on request

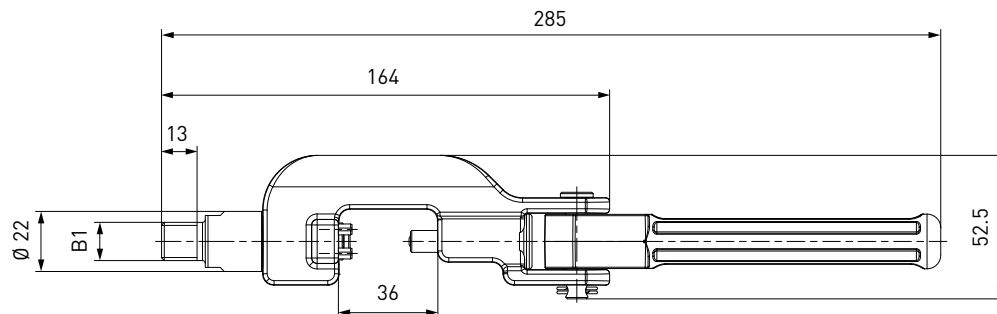
Example of use:



WEH® Connector TW42

ORDERING | Quick connector TW42

approx. dimensions (mm)



Part No.	Description	Connection A	Inlet B1 (external thread)
C1-117833	TW42	CGA 870	NPT 1/4"
C1-117834*	TW42	CGA 870	NPT 1/4"

* with RPV pin

Other connector sizes and versions on request.

Required information for ordering see page 7.

ACCESSORIES

The following accessories are available for type TW42:

Swivel joint TD1 *(see page 58)*

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

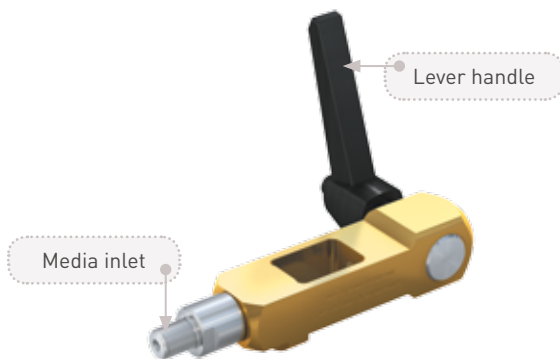
Spare parts

Various parts are available as spares for type TW42:

Part No.	Description
E50-55668	O-ring

WEH® Connector TW49

DESCRIPTION



Features

- For Pin-Index connections acc. to CGA 870 (others on request)
- Connection in seconds
- No hand tightening required
- Right-hand and left-hand operation
- Pressure-assisted piston prevents accidental disconnection under pressure
- Compact design
- High-grade materials

The type TW49 quick connector is especially designed for Pin-Index connections and is suitable for Pin-Index cylinder valves without hand wheel and gauge.

The connection is made in seconds without laborious hand tightening.

Simply place the TW49 quick connector onto the cylinder valve, actuate the lever handle and the pressure-tight connection is made.

The pressure-assisted piston prevents accidental disconnection under pressure and provides additional safety.

Type TW49 can easily be adjusted from right-hand to left-hand operation and also the lever position can be adjusted to customer requirement.

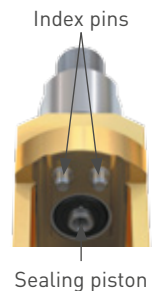
This quick connector is available for gas cylinder valves acc. to CGA 870, others on request.

Connectors for oxygen applications are oxygen cleaned and free of oil and grease.

Note: The type TW49 is not suitable for gas cylinders with a residual pressure valves!

Application

Quick connector for filling of gas cylinders with Pin-Index system.



TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 200 bar PS = 250 bar PT = 375 bar
Temperature range	+5 °C up to +60 °C (O ₂)
Connection A	Pin-Index connection acc. to CGA 870 (others on request)
Medium	Medical oxygen (others on request)
Actuation	Manual actuation via lever handle
Material	Corrosion resistant stainless steel, brass
Sealing material	EPDM (others on request)
Registration	PED97/23/EC: CE0036 Adiabatic ignition test available

Other designs on request

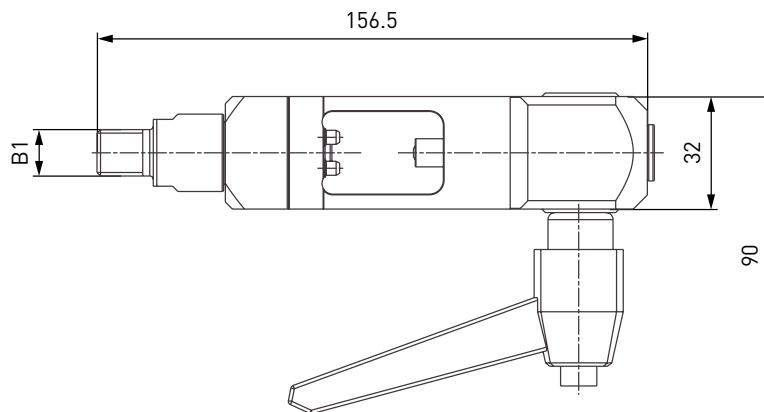
Example of use:



WEH® Connector TW49

ORDERING | Quick connector TW49

approx. dimensions (mm)



Part No.	Description	Connection A	Inlet B1 (external thread)
C1-4439	TW49	CGA 870	NPT 1/4"

Other connector sizes and versions on request.

Required information for ordering see page 7.

ACCESSORIES

The following accessories are available for type TW49:

Swivel joint TD1 *(see page 58)*

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

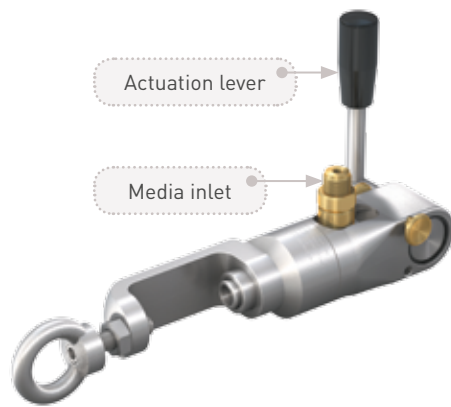
Spare parts

Various parts are available as spares for type TW49:

Part No.	Description
E50-084S569	O-ring
E51-257S300	Special seal

WEH® Connector TW53

DESCRIPTION



Features

- Suitable for filling of acetylene and acetone
- Connection in seconds
- No hand tightening required
- Integrated shut-off valve
- Robust construction
- High-grade materials

The type TW53 quick connector introduces a new generation of connector systems for the industrial filling of acetylene and acetone for cylinder valves acc. to DIN 477 part 1 no. 3. Type TW53 is connected to the gas cylinder valve like a conventional filling device but eliminates screw tightening.

Simply place the TW53 quick connector around the cylinder valve, turn the actuation lever down and the pressure-tight connection is made.

For ease of operating an optional swivel joint is available to be mounted to the media inlet port.

No additional valves required

The integrated shut-off valve prevents the leakage of gas when connecting and disconnecting. An optional check valve prevents the loss of gas in case of damage to the filling valve (flame barrier). The amount of vented gas when disconnecting is always less than 1 cm³ at 1 bar.

Safety tested

The type TW53 is BAM tested and meets the requirements of the technical regulations for acetylene plants (TRAC).

Application

Quick connector for filling of gas cylinders with acetylene and acetone on connection acc. to DIN 477 part 1 no. 3

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 24 bar PS = 30 bar PT = 45 bar
Temperature range	+10 °C up to +60 °C
Connection A	Connection acc. to DIN 477 part 1 no. 3
Medium	Acetylene / acetone
Actuation	Manual actuation via actuation lever
Material	Corrosion resistant stainless steel, brass
Sealing material	EPDM
Registration	Detonative acetylene decomposition test up to 315 bar

Other designs on request

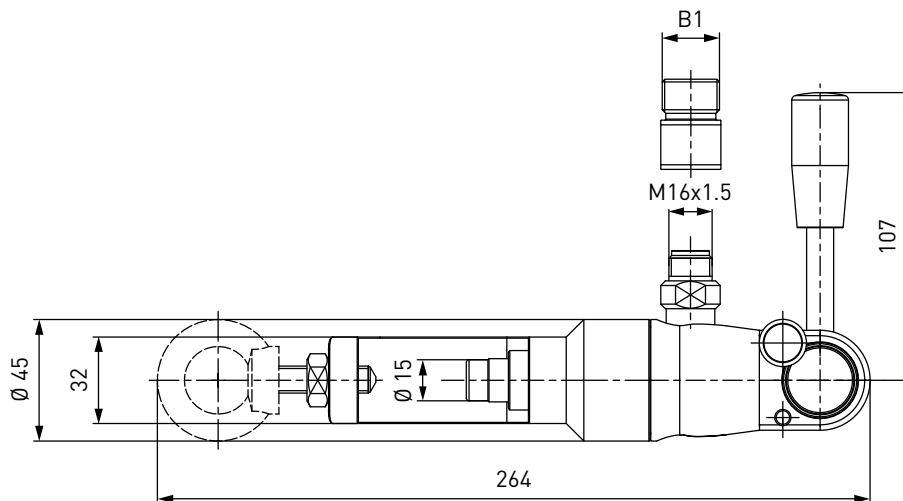
Example of use:



WEH® Connector TW53

ORDERING | Quick connector TW53

approx. dimensions (mm)



Part No.	Description	Connection A	Inlet B1 (external thread)
C1-4419*	TW53	DIN 477 part 1 no. 3	G1/2"
C1-80400**	TW53	DIN 477 part 1 no. 3	G1/2"

* with adaptor and integrated check valve

** special connector for large valves [42x42] with adaptor and integrated check valve

Other connector sizes and versions on request.

Required information for ordering see page 7.

ACCESSORIES

The following accessories are available for type TW53:

Swivel joint TD1 (see page 58)

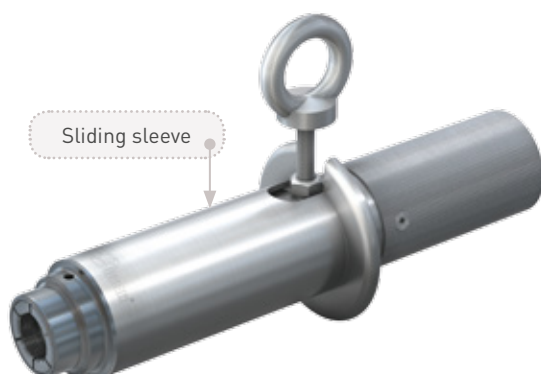
Adaptors

Adaptors with optional check valve for type TW53.

Part No.	Description	Thread (internal / external thread)
W5176	Adaptor with integrated check valve (flame barrier)	M16x1.5 / G1/2"
E26-022M-G16	Adaptor without integrated check valve	M16x1.5 / G1/2"

WEH® Connector TW59

DESCRIPTION



Features

- Suitable for filling of propane and butane
- Connection in seconds
- No hand tightening required
- Integrated shut-off valve
- WEH® Jaw locking mechanism
- Single-handed operation
- Robust construction
- High-grade materials

The type TW59 quick connector is specifically designed for the filling of gas cylinders with propane and butane and represents a major step in the technology of safe application, economy, ergonomics and flexibility.

Type TW59 provides an intrinsically safe connection. The seal between the quick connector and the gas cylinder valve is mechanically actuated and the sealing force is increased by the gas filling pressure. This means that there is no need for a compressed air safety reservoir, the air supply is used to withdraw the seal when connecting / disconnecting in order to achieve effortless operation.

If needed, a second pneumatic inlet is provided for pilot pressure. This can be used to indicate the operational condition of the connector – i.e. whether connected or disconnected – and could for example be used to automatically begin the loading and unloading of the gas cylinders from the filling station.

No additional valves required

The integrated shut-off valve prevents the leakage of gas when connecting and disconnecting. The gas flow is immediately interrupted when disengaging the pressurized connector.

Safety tested

The type TW59 is TÜV tested and meets the requirements of the technical regulations for gases (TRG).

Application

Quick connector for filling of gas cylinders with propane and butane on connection acc. to DIN 477 part 1 Nr. 1 and 2

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 24 bar PS = 30 bar PT = 45 bar
Pilot pressure	6 - 8 bar
Pilot pressure port P1	M5
Pilot pressure port P2	M5 - if this feature is not required the port must be fitted with a blanking plug (factory fitted)
Temperature range	+5 °C up to +95 °C
Connection A	Connection acc. to DIN 477 part 1 no. 1 and 2
Medium	Propane, butane
Actuation	Manual actuation via sliding sleeve (pneumatically supported)
Material	Corrosion resistant stainless steel, aluminium
Sealing material	Acc. to gas type
Registration	TÜV test available

Other designs on request

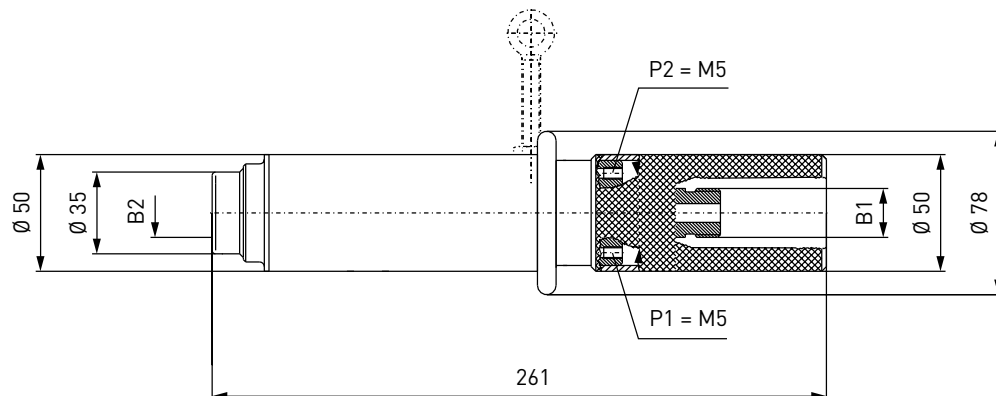
Example of use:



WEH® Connector TW59

ORDERING | Quick connector TW59

approx. dimensions (mm)



Part No.	Description	Inlet B1 (external thread)	Connection B2 (external thread)
C1-10291	TW59	W21.8x1/14" * LH	W21.8x1/14" * LH

acc. to DIN 477 part 1

Other connector sizes and versions on request.

Required information for ordering see page 7.

ACCESSORIES

The following accessories are available for type TW59:

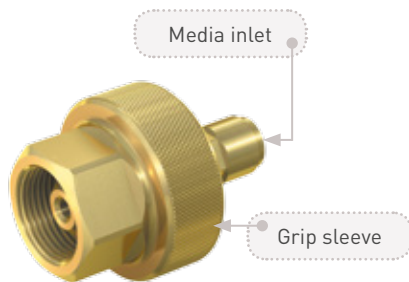
Spare parts

Various parts are available as spares for type TW59:

Part No.	Description
E51-101N	Special seal

» WEH® Connector TW67

DESCRIPTION



Features

- Version for **residual pressure valves or non-residual pressure valves** available
- Suitable for pallet and bundle filling
- Inline or 90° version available
- Compact design
- High-grade materials

The type TW67 manual connector for external threads is simply screwed onto the cylinder valve and the pressure-tight connection is made.

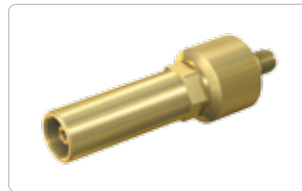
The Type TW67 is available in four different designs: short version for pallet filling or extended version for bundle filling, inline version or 90° version. All connector configurations are available for cylinder valves with or without a residual pressure valve.



TW67 - inline
pallet filling



TW67 - 90°
pallet filling



TW67 - inline
bundle filling



TW67 - 90°
bundle filling

Application

Manual connector for filling of gas cylinders with external thread and with or without a residual pressure valve (pallet and bundle filling).

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 200 bar PS = 250 bar PT = 375 bar PN = 300 bar PS = 375 bar PT = 565 bar
Temperature range	+5 °C up to +80 °C +5 °C up to +60 °C (O ₂)
Connection A (cylinder valve)	External thread connection acc. to the corresponding national standard e.g. DIN, CEN, CGA, BS, NF etc.
Medium	Inert/flammable gases, oxygen, argon, nitrogen
Actuation	Manual actuation via grip sleeve
Material	Brass
Sealing material	Acc. to gas type
Abfüllung	Pallet filling, bundle filling
Registration	PED97/23/EC: CE0036 Adiabatic ignition test available

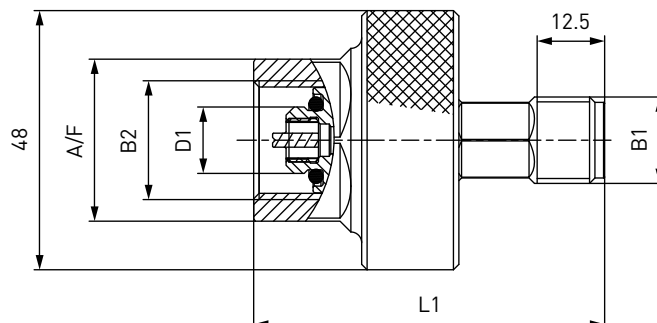
Other designs on request

Example of use:



ORDERING | Manual connector TW67 with inline media inlet - pallet filling

approx. dimensions (mm)



Example: TW67 with RPV pin



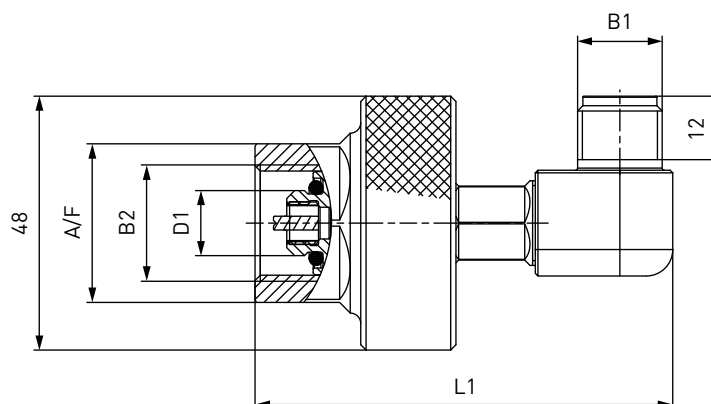
Part No.	Connection B2 (internal thread)	Inlet B1 (external thread)	Pressure (PN)	Medium	D1	L1	A/F
C1-94962	W21,8 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Argon	12.3	65	30
C1-95028	W21,8 x1/14"-LH DIN 477 Part 1	M16x1.5	200 bar	Flammable gases	12.3	65	30
C1-94992	W24,32 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Nitrogen	12.3	65	30
C1-95039	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	300 bar	Inert gases	15.9	68	36
C1-94996	G3/4" DIN 477 Part 1	M16x1.5	200 bar	Oxygen	13.5	65	32
C1-98091	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	300 bar	Oxygen	17.3	68	36
C1-94998*	W21,8 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Argon	12.3	65	30
C1-95063*	W21,8 x1/14"-LH DIN 477 Part 1	M16x1.5	200 bar	Flammable gases	12.3	65	30
C1-94983*	W24,32 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Nitrogen	12.3	65	30
C1-95220*	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	300 bar	Inert gases	15.9	68	36
C1-94995*	G3/4" DIN 477 Part 1	M16x1.5	200 bar	Oxygen	13.5	65	32
C1-98090*	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	300 bar	Oxygen	17.3	68	36

* with RPV pin

WEH® Connector TW67

ORDERING | Manual connector TW67 with 90° media inlet - pallet filling

approx. dimensions (mm)



Example: TW67 with RPV pin

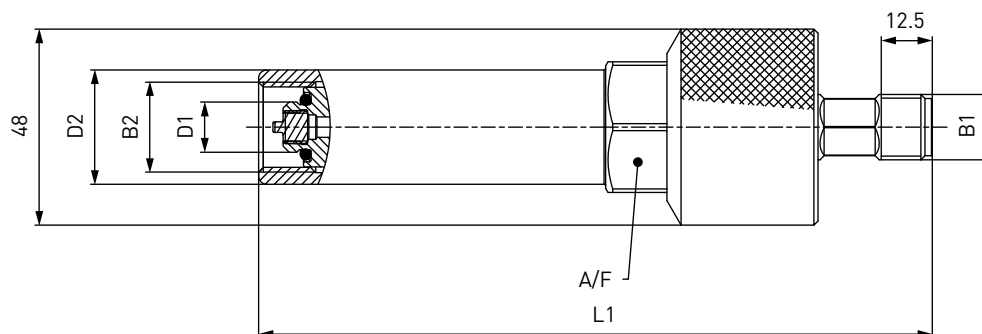


Part No.	Connection B2 (internal thread)	Inlet B1 (external thread)	Pressure (PN)	Medium	D1	L1	A/F
C1-93019	W21,8 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Argon	12.3	79	30
C1-92813	W21,8 x1/14"-LH DIN 477 Part 1	M16x1.5	200 bar	Flammable gases	12.3	79	30
C1-92986	W24,32 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Nitrogen	12.3	79	30
C1-94098	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	300 bar	Inert gases	15.9	82	36
C1-93043	G3/4" DIN 477 Part 1	M16x1.5	200 bar	Oxygen	13.5	78	32
C1-98089	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	300 bar	Oxygen	17.3	82	36
C1-93023*	W21,8 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Argon	12.3	79	30
C1-92855*	W21,8 x1/14"-LH DIN 477 Part 1	M16x1.5	200 bar	Flammable gases	12.3	79	30
C1-93009*	W24,32 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Nitrogen	12.3	79	30
C1-95221*	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	300 bar	Inert gases	15.9	82	36
C1-93047*	G3/4" DIN 477 Part 1	M16x1.5	200 bar	Oxygen	13.5	79	32
C1-99758*	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	300 bar	Oxygen	17.3	82	36

* with RPV pin

ORDERING | Manual connector TW67 with inline media inlet - bundle filling

approx. dimensions (mm)



Example: TW67 with RPV pin



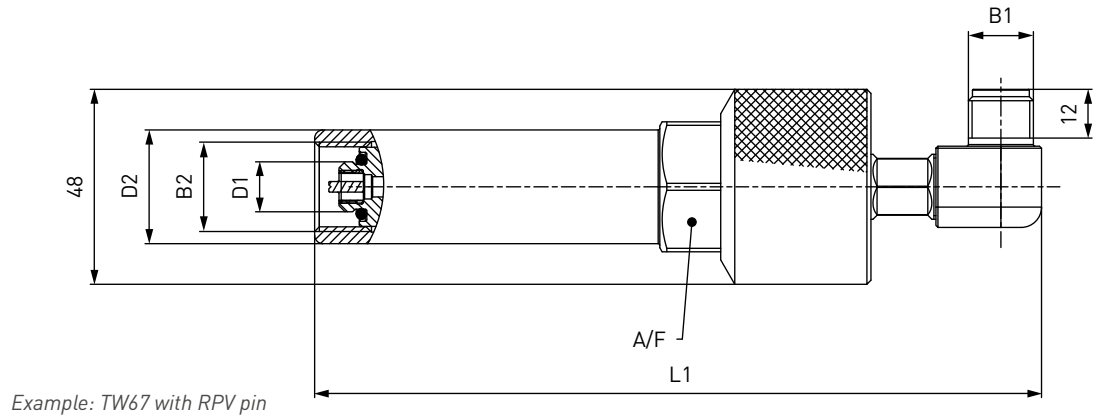
Part No.	Connection B2 (internal thread)	Inlet B1 (external thread)	Pressure (PN)	Medium	D1	D2	L1	A/F
C1-95101	W21,8 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Argon	12.3	28	164	32
C1-95194	W21,8 x1/14"-LH DIN 477 Part 1	M16x1.5	200 bar	Flammable gases	12.3	28	164	32
C1-95202	W24,32 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Nitrogen	12.3	30	164	32
C1-95111	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	300 bar	Inert gases	15.9	38	157	38
C1-95216	G3/4" DIN 477 Part 1	M16x1.5	200 bar	Oxygen	13.5	32	164	32
C1-98092	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	300 bar	Oxygen	17.3	38	157	38
C1-95110*	W21,8 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Argon	12.3	28	165	32
C1-95196*	W21,8 x1/14"-LH DIN 477 Part 1	M16x1.5	200 bar	Flammable gases	12.3	28	165	32
C1-95199*	W24,32 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Nitrogen	12.3	30	165	32
C1-95223*	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	300 bar	Inert gases	15.9	38	167	38
C1-95219*	G3/4" DIN 477 Part 1	M16x1.5	200 bar	Oxygen	13.5	32	165	32
C1-98093*	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	300 bar	Oxygen	17.3	38	157	38

* with RPV pin

WEH® Connector TW67

ORDERING | Manual connector TW67 with 90° media inlet - bundle filling

approx. dimensions (mm)



Part No.	Connection B2 (internal thread)	Inlet B1 (external thread)	Pressure (PN)	Medium	D1	D2	L1	A/F
C1-95081	W21,8 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Argon	12.3	28	178	32
C1-95195	W21,8 x1/14"-LH DIN 477 Part 1	M16x1.5	200 bar	Flammable gases	12.3	28	178	32
C1-95203	W24,32 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Nitrogen	12.3	30	178	32
C1-95080	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	300 bar	Inert gases	15.9	38	173	38
C1-95215	G3/4" DIN 477 Part 1	M16x1.5	200 bar	Oxygen	13.5	32	178	32
C1-98094	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	300 bar	Oxygen	17.3	38	171	38
C1-95082*	W21,8 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Argon	12.3	28	179	32
C1-95197*	W21,8 x1/14"-LH DIN 477 Part 1	M16x1.5	200 bar	Flammable gases	12.3	28	179	32
C1-95198*	W24,32 x1/14" DIN 477 Part 1	M16x1.5	200 bar	Nitrogen	12.3	30	179	32
C1-95224*	W30x2 ISO 5145 1.FTSC Code 0170	M16x1.5	300 bar	Inert gases	15.9	38	171	32
C1-95218*	G3/4" DIN 477 Part 1	M16x1.5	200 bar	Oxygen	13.5	32	179	32
C1-98095*	W30x2 ISO 5145 1.FTSC Code 4070	M16x1.5	300 bar	Oxygen	17.3	38	171	38

* with RPV pin

Other connector sizes and versions on request.

Required information for ordering see page 7.

» WEH® Connector TW67

ACCESSORIES

The following accessories are available for type TW67:

Swivel joint TD1 *(see page 58)*

Quick release coupling TK350-TN350 *(see page 54)*

Grip extension with o-ring



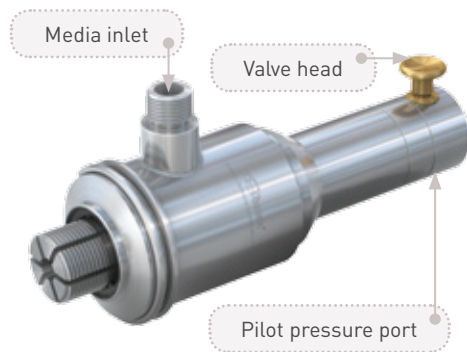
Part No.	Description	Inlet B1 (external thread)	Connection B2 (internal thread)
W95076	Grip extension 50 mm	M16x1.5	M16x1.5
W104260	Grip extension 132 mm	M16x1.5	M16x1.5
W95332	Grip extension 231 mm	M16x1.5	M16x1.5

Adaptors

Adaptors for connecting the manual connector to the filling hose are available on request.

WEH® Connector TW17

DESCRIPTION



Features

- Suitable for water pressure testing of gas cylinders
- Connection in seconds
- No hand tightening required
- Different actuations
- WEH® Jaw locking mechanism
- Robust construction
- High-grade materials

The type TW17 quick connector offers time saving on pressure testing of gas cylinders by eliminating tedious manual threading.

Depress the valve head and simply push the TW17 quick connector into the internal thread of the gas cylinder. Release the valve head and the pressure-tight connection is made. The cylinder can now be leak tested with water. The test procedure is regulated by an external control unit.

Application

Quick connector for pressure testing of gas cylinders with water.

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 280 bar PS = 350 bar PT = 525 bar
Pilot pressure	6 - 8 bar air
Temperature range	+5 °C up to +80 °C
Medium	Water
Actuation	Pneumatic actuation via valve head or manual actuation via lever handle
Material	Corrosion resistant stainless steel, brass
Sealing material	NBR
Registration	PED97/23/EC: CE0036

Other designs on request

Example of use:

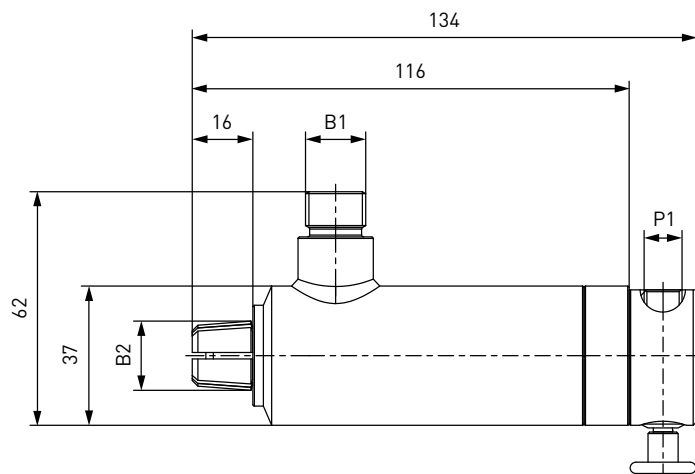


WEH® Connector TW17

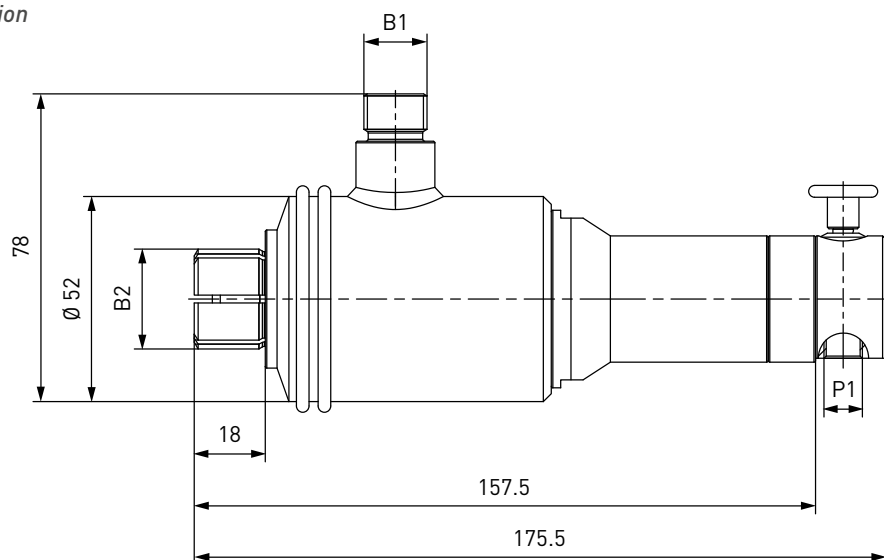
ORDERING | Quick connector TW17 with pneumatic actuation

approx. dimensions (mm)

TW17V for W19,8x1/14" connection



TW17V for W28,8x1/14" connection



Part No.	Description	Inlet B1 (external thread)	Connection B2 (external thread)	Pilot pressure port P1 (internal thread)
C1-33210	TW17V	M16x1.5*	W19.8x1/14"	G1/8"
C1-30341	TW17V	M16x1.5*	W28.8x1/14"	G1/8"

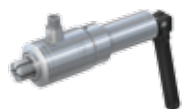
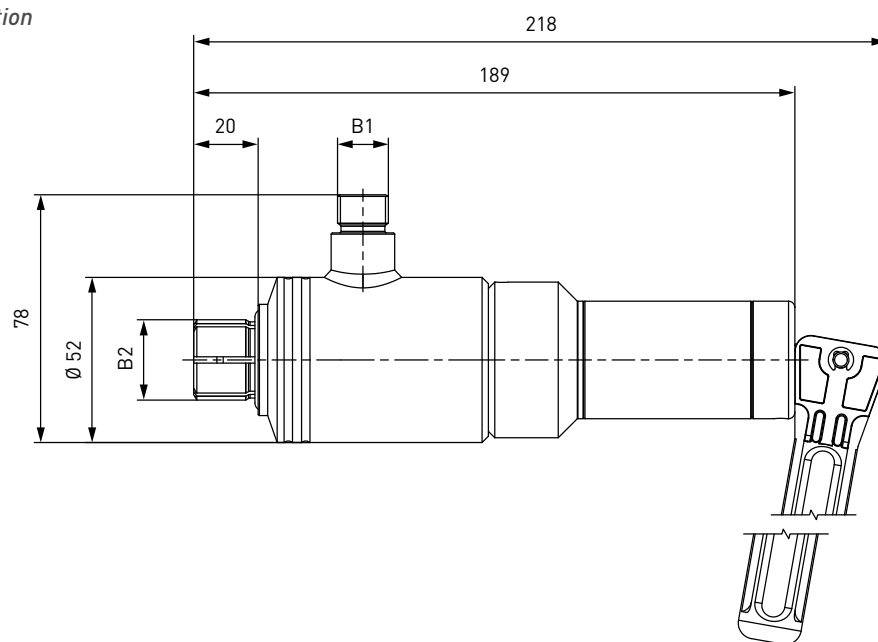
* Ermeto 24° ,S'

WEH® Connector TW17

ORDERING | Quick connector TW17 with manual actuation

approx. dimensions (mm)

TW17M for W28,8x1/14" connection



Part No.	Description	Inlet B1 (external thread)	Connection B2 (external thread)
C1-14854	TW17M	M16x1.5*	W28.8x1/14"

* Ermeto 24° „S“

Other connector sizes and versions on request.

Required information for ordering see page 7.

» WEH® Connector TW17

ACCESSORIES

The following accessories are available for type TW17:

Actuations

For type TW17 various manual and pneumatic actuations are available:

- **H** (manually via hand lever)
- **M** (manually via lever handle)
- **V** (pneumatically via valve head)
- **P** (pneumatically for external control systems)

Please contact us!

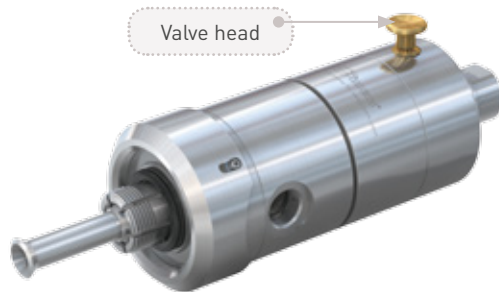
Spare parts

Various parts are available as spares for type TW17:

Part No.	Description
E50-135N	O-ring for C1-33210
E50-231N	O-ring for C1-30341 and C1-14854

WEH® Connector TW117

DESCRIPTION



Features

- Three functions with one connection:
filling - testing - discharging of/with water
- Connection in seconds
- No hand tightening required
- WEH® Jaw locking mechanism
- Robust construction
- High-grade materials

The type TW117 quick connector simplifies testing of gas cylinders with water. Eliminating tedious screwing and unscrewing of threaded parts saves time and money and also spares the employees muscles and joints. The quick connector is easy to connect and disconnect with a single-handed operation. The most impressive features are the high functionality and range of applications of type TW117.

Three functions with one connection: filling, testing and discharging of gas cylinders with water (discharging can also be carried out with compressed air).

A green visual ring (see example of use) shows when the connector has been properly connected.

For pressure tests, the lateral inlet 'B3' has to be sealed with a high pressure screw plug or a ball valve. Please contact us!

Application

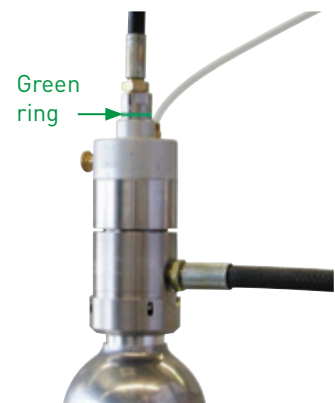
Quick connector for testing of water from gas cylinders.

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 360 bar PS = 450 bar PT = 645 bar
Pilot pressure	6 - 8 bar air
Pilot pressure port P1	M5
Temperature range	+10 °C up to +80 °C
Medium	Water, compressed air (when discharging)
Actuation	Pneumatic actuation via valve head
Material	Corrosion resistant stainless steel, aluminium, brass
Sealing material	NBR

Other designs on request

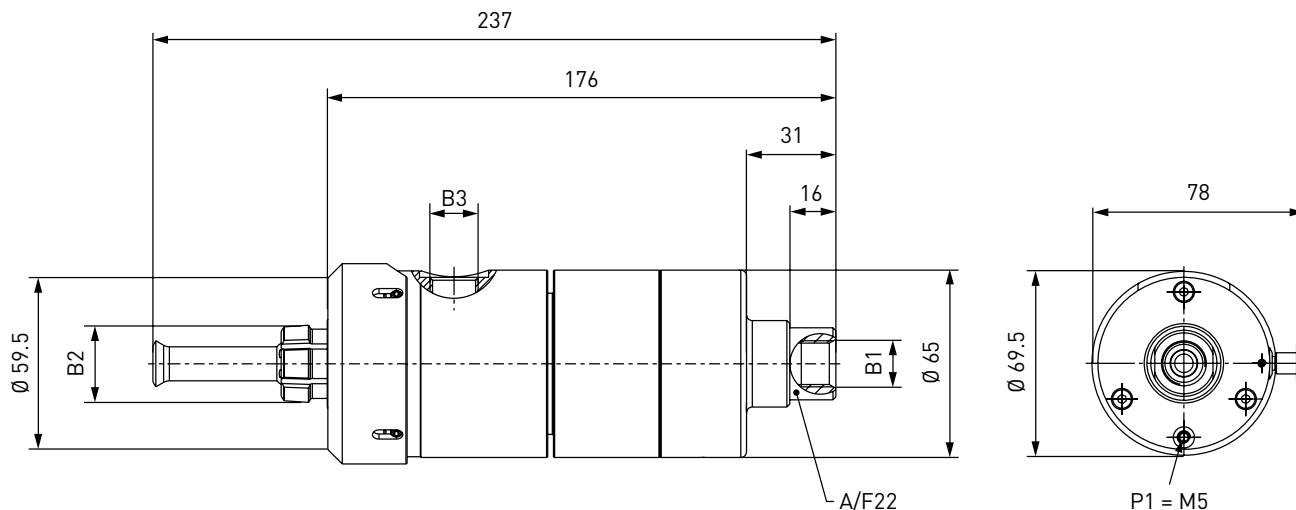
Example of use:



WEH® Connector TW117

ORDERING | Quick connector TW117

approx. dimensions (mm)



Part No.	Description	Inlet B1 (internal thread)	Connection B2 (external thread)	Discharge B3 (internal thread)
C1-11673	TW117	M16x1.5	W28.8x1/14"*	G3/8"

* acc. to DIN 477

Other connector sizes and versions on request.

Required information for ordering see page 7.

ACCESSORIES

The following accessories are available for type TW117:

Adaptors

Adaptors for connecting the quick connector to the filling hose are available on request.

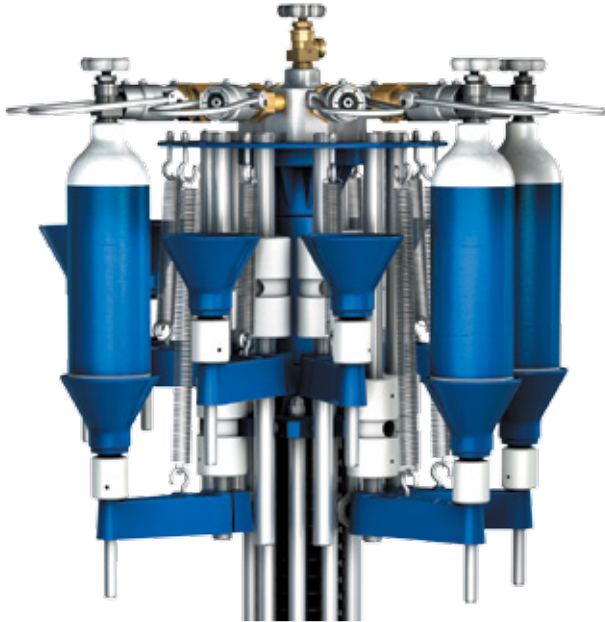
Spare parts

Various parts are available as spares for type TW117:

Part No.	Description
E50-231N	Front seal
B200B-056-00	Seal set

» Radial filling rigs TS200 / TS250

DESCRIPTION



Features

- Connection in seconds
- No hand tightening required
- The filling rig can be easily connected to existing filling systems without additional and expensive tubing
- Varying cylinder sizes can be filled without additional pedestals, plug-ins, mountings that are necessary for other filling rigs
- Easy access from all sides
- Small footprint
- Innovative distribution head avoids costly high pressure tubing
- Filling of gas cylinders becomes even easier and more efficient

The type TS200 / TS250 radial filling rigs are designed to simultaneously fill between 1 and 10 gas cylinders of sizes varying between 0.5 and 10 litres nominal volume.

Ease of operation is achieved by integrating a range of WEH® Connectors: e.g. type TW54, TW57, TW101, TW102 or TW42, TW49 to achieve connection and commencement of filling within seconds. This design avoids placing the cylinders on a pallet filling rig. A spring balance supports the weight of the gas cylinders. Cylinders can be connected without hand tightening.

Application

Radial, rotating filling rig for gas cylinders up to 10 litres nominal volume.

TECHNICAL DATA

Characteristic	Basic version
Pressure range*	PN = 200 bar PS = 250 bar PT = 375 bar PN = 300 bar PS = 375 bar PT = 565 bar
Temperature range*	+5 °C up to +80 °C +5 °C up to +60 °C (O ₂)
Medium	Oxygen, nitrogen, CO ₂ , air, inert/flammable gases, medical gases
Material	Load-bearing central pillar: steel, coated finish Distribution head: corrosion resistant stainless steel Cylinder support adapter: aluminium, coated finish Pallet base frame: steel, galvanized All other parts in corrosion resistant material
Design	WEH® Connector type TW54, TW57, TW101 or TW102 TS200: gas cylinders with a max. height up to approx. 580 mm TS250: gas cylinders with a max. height between 532 mm and 830 mm Filling rig with pallet base frame or optionally with mobile base frame
Weight	Approx. 180 kg

* Pressure and temperature range depending on WEH® Connector used!

Example of use:



» Radial filling rigs TS200 / TS250

FUNCTION

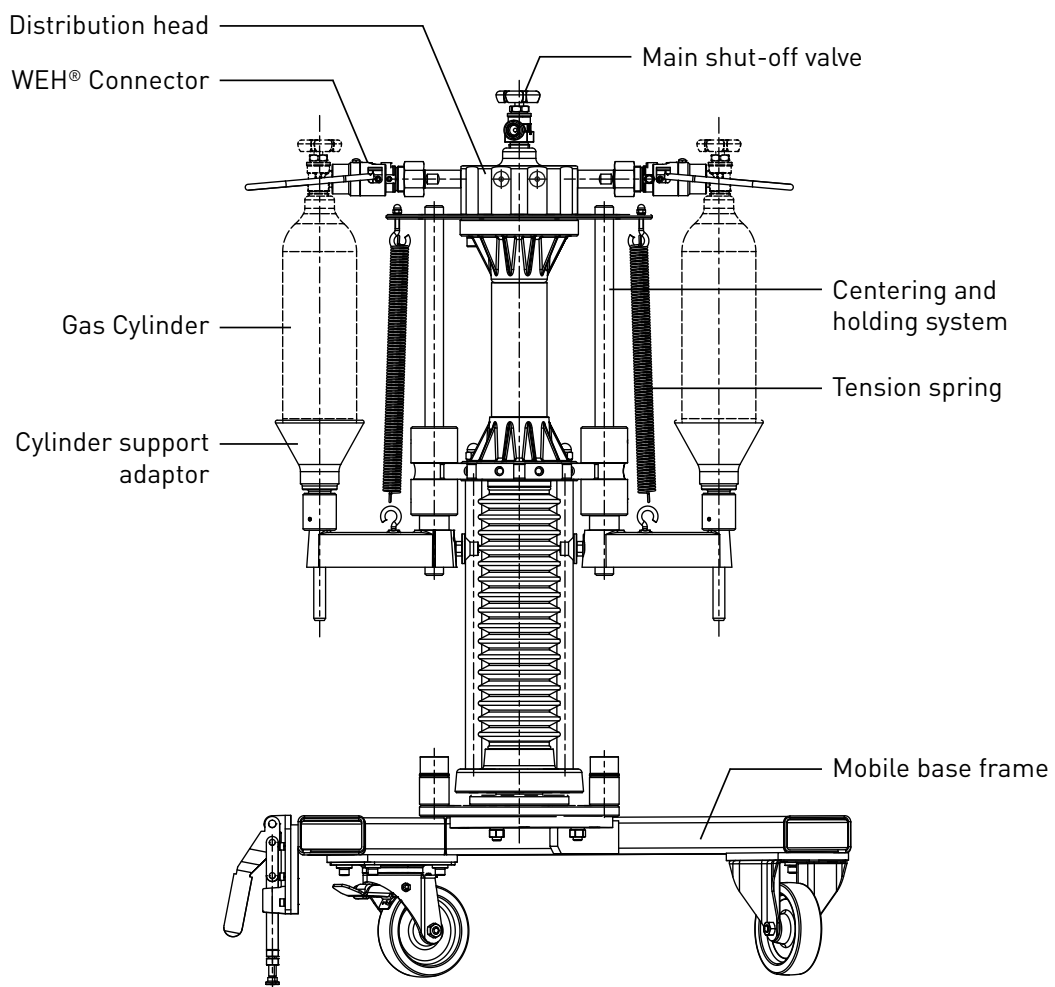
The filling rig is connected by means of a flexible hose to the central main stop valve which has the same termination as the cylinder valve.

The gas flow is distributed in up to ten single gas cylinders via the radial bores of the rotating distribution head and the WEH® Connectors.

Counterbalancing the different heights and weights of the gas cylinders is effected by specific cylinder support adaptors and by the centering system with its tension springs. The distribution head engages at each cylinder position and the centering and holding system facilitates the loading of the filling rig with small cylinders.

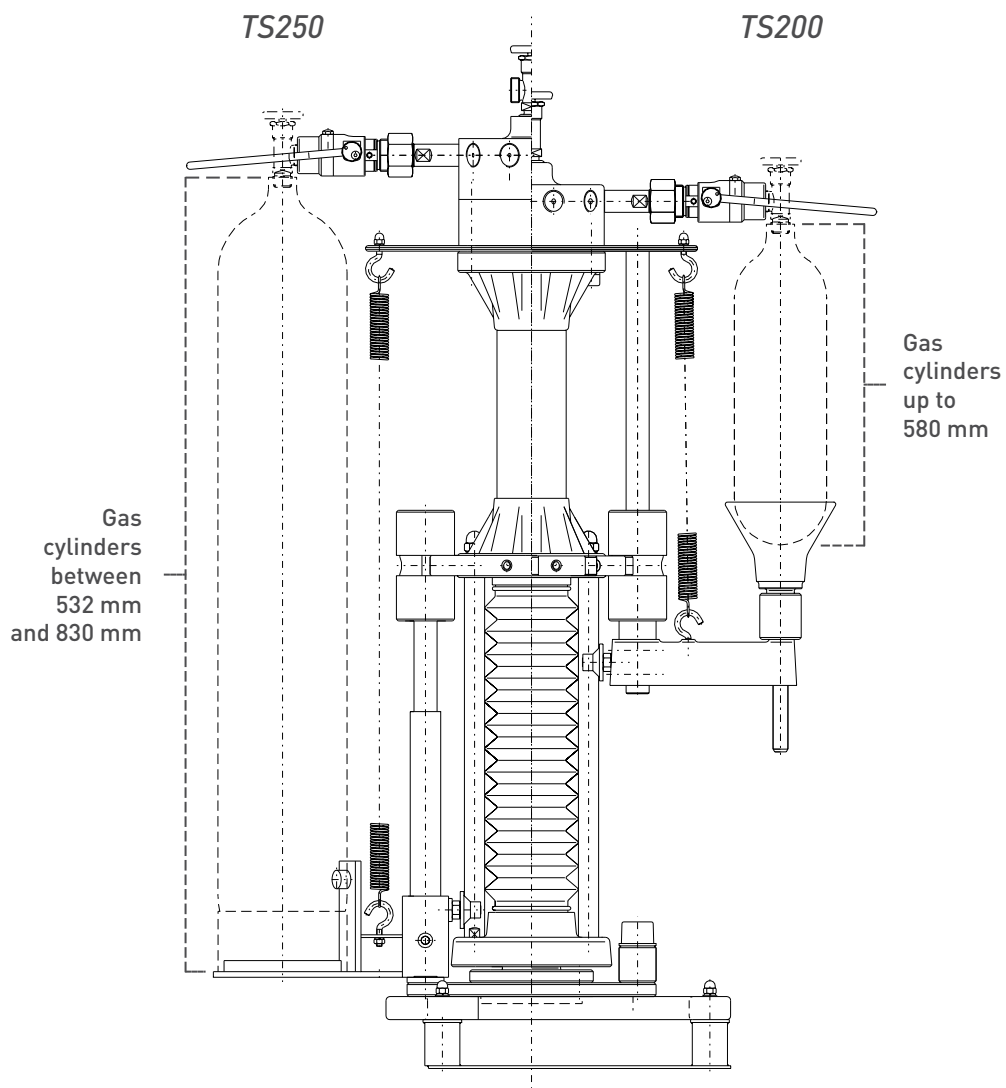
The filling rig can be easily transported with the pallet base frame by means of a fork-lift.

Type TS200/TS250 is also available with a mobile base frame.



» Radial filling rigs **TS200 / TS250**

ORDERING | Radial filling rig TS200 and TS250



Part No.	Description	Pressure (PN)	Max. height of cylinders
On request	TS200 filling rig with WEH® Connectors	200 bar / 300 bar	Up to approx. 580 mm
On request	TS250 filling rig with WEH® Connectors	200 bar / 300 bar	Between 532mm and 830 mm

>> Radial filling rigs TS200 / TS250

ACCESSORIES

The following accessories are available for type TS200 / TS250:

Mobile base frame with wheels and locking brake

A mobile base frame with braking system is available as an option for the types TS200 and TS250 for in-house transport of the filling rig.



Part No.	Description
W6688	Mobile base frame with wheels and locking brake for type TS200 / TS250

» Linear filling rig TS150

DESCRIPTION



Features

- Connection in seconds
- No hand tightening required
- Varying cylinder sizes up to 10 litres nominal volume can be filled without additional pedestals, plug-ins or mountings that are necessary for other filling rigs
- Small footprint
- Filling of gas cylinders becomes even easier and more efficient
- Available for wall mounting or optionally for installation on mobile base frame

The type TS150 linear filling rig is designed for filling gas cylinders of different sizes up to 10 litres nominal volume. Ease of operation is achieved by integrating a range of WEH® Connectors: e.g. type TW54, TW57, TW101 or TW102 to achieve connection and commencement of filling within seconds. This design avoids placing the cylinders on a pallet filling rig. A spring balance supports the weight of the gas cylinders. Cylinders can be connected without hand tightening.

Type TS150 is supplied as a single unit but units may be connected in series to make a multiple filling rig or units added to an existing rig if required.

Application

Linear filling rig for gas cylinders up to 10 litres nominal volume.

TECHNICAL DATA

Characteristic	Basic version
Pressure range*	PN = 200 bar PS = 250 bar PT = 375 bar PN = 300 bar PS = 375 bar PT = 565 bar
Temperature range*	+5 °C up to +80 °C +5 °C up to +60 °C (O ₂)
Medium	Oxygen, nitrogen, CO ₂ , air, inert/flammable gases, medical gases
Material	Corrosion resistant Cylinder support adaptor: galvanized steel
Design	WEH® Connector type TW54, TW57, TW101 or TW102 Filling rig for wall mounting or optional on mobile base frame
Weight	Approx. 40 kg

* Pressure and temperature range depending on WEH® Connector used!

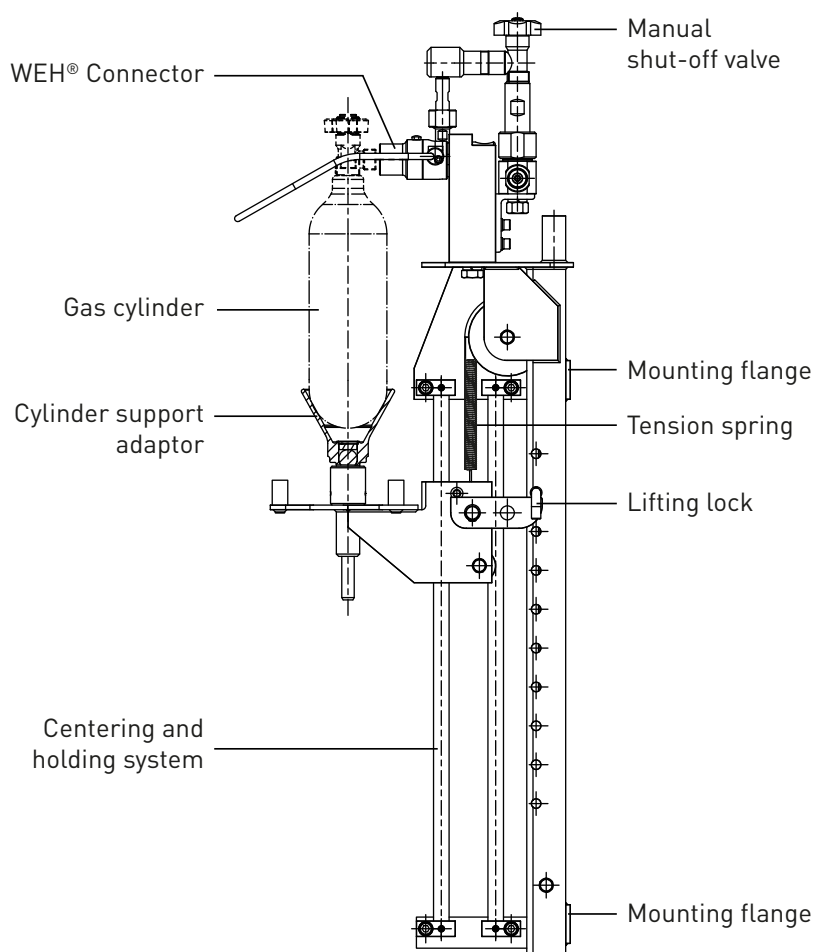
Example of use:



» Linear filling rig TS150

FUNCTION

Place the gas cylinder in the cylinder support adaptor, which is counterbalanced by the centering and holding system. If necessary press the cylinder down onto the spring balanced cylinder support until the lateral connection of the cylinder valve is facing the WEH® Connector. Insert the cylinder valve into / onto the WEH® Connector. Connect the cylinder valve to the WEH® Connector by lowering the operating handle of the connector. Open the manual stop valve and start filling the gas cylinder.

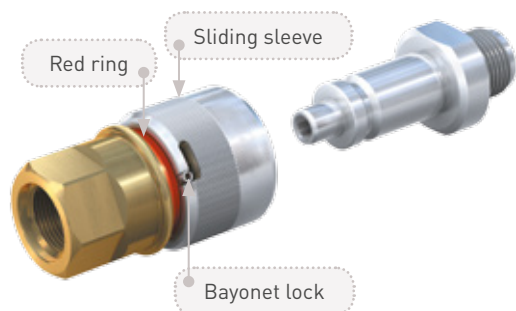


ORDERING | Linear filling rig TS150

Part No.	Description	Pressure (PN)
On request	TS150 filling rig with WEH® Connector(s)	200 bar / 300 bar

» Quick Release Coupling TK350-TN350

DESCRIPTION



Features

- Quick changeover of connectors
- Bayonet lock
- Suitable for inert/flammable gases and oxygen
- For 200 and 300 bar applications
- Can be used as a swivel joint
- High-grade materials

When changing over to gas cylinders having different cylinder valves, the filling hose has to be disconnected from the filling connector. The quick release coupling has solved this problem, as each WEH® Connector can use the TK350 quick coupling and the corresponding TN350 quick coupling nipple fitted to the filling hose.

The quick release system is used for quick changes of WEH® Connectors, either for repair or for a changeover to another type of connector. For example a change from residual pressure to non-residual pressure connectors is easily achieved. No additional swivel joint is necessary with the TK350-TN350.

The quick release system consists of the quick coupling type TK350 (without shut-off valve) for direct connection to the WEH® Connector types TW54, TW57 and TW67 and a quick coupling nipple type TN350 (without shut-off valve) for connection to the filling hose.

The TK350 coupling is hand-tightened directly to the WEH® Connector and the TN350 nipple directly to the filling hose. When changing between different cylinder valves merely disconnect coupling and nipple by unlocking the bayonet lock and pulling back the sliding sleeve of the TK350. The TN350 nipple remains mounted to the filling hose and is connected to another WEH® Connector also equipped with a type TK350 quick release coupling. This ensures a quick and easy changeover of filling connectors.

The TK350 quick coupling is equipped with a red indicator ring which is not visible when correctly connected and a bayonet lock for additional safety against accidental disconnection.

Application

Quick release system for a quick and easy changeover of WEH® Connectors, whether for repair, to another type or a change from residual pressure to non-residual pressure cylinder valves.

TECHNICAL DATA

Characteristic	Basic version
Nominal bore DN	5 mm
Pressure range	PN = 300 bar PS = 375 bar PT = 565 bar
Temperature range	+5 °C up to +80 °C +5 °C up to +60 °C (O ₂)
Leak rate	1 x 10 ⁻³ mbar x l/s
Medium	Inert/flammable gases, oxygen
Actuation	Manual actuation via sliding sleeve
Material	Corrosion resistant Housing: brass Nipple: corrosion resistant stainless steel (Monel® construction: Ecobrase®)
Sealing material	Acc. to gas type
Registration	PED 97/23/EC: CE0036 Adiabatic ignition test available

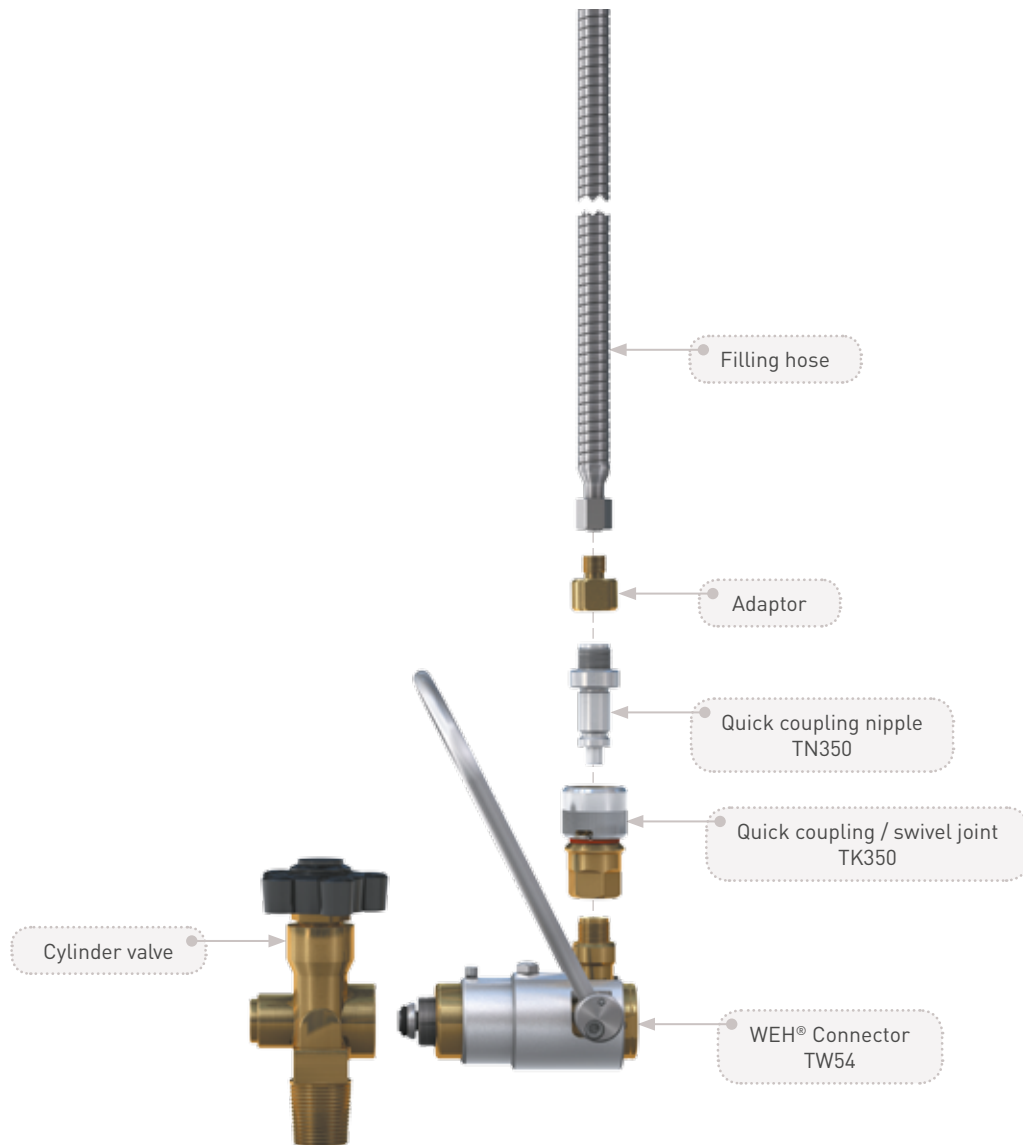
Other designs on request

Example of use:



» Quick Release Coupling **TK350-TN350**

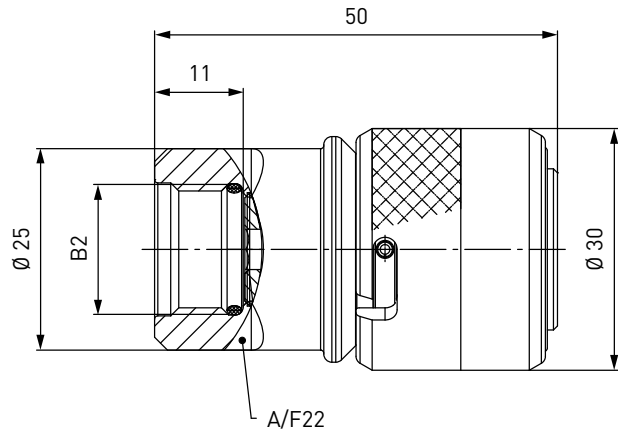
SYSTEM OVERVIEW



Quick Release Coupling **TK350-TN350**

ORDERING | WEH® TK350 Quick Coupling

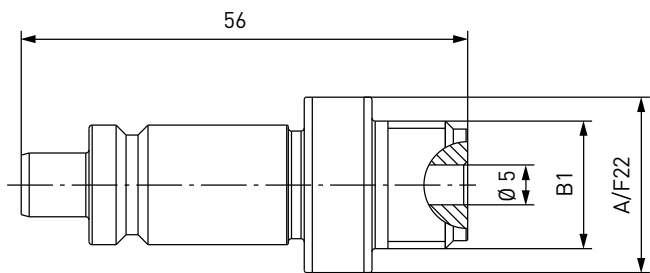
approx. dimensions (mm)



Part No.	Description	Connection B2 (internal thread)
C1-91239	TK350	M16x1.5

ORDERING | WEH® TN350 Quick Coupling Nipple

approx. dimensions (mm)

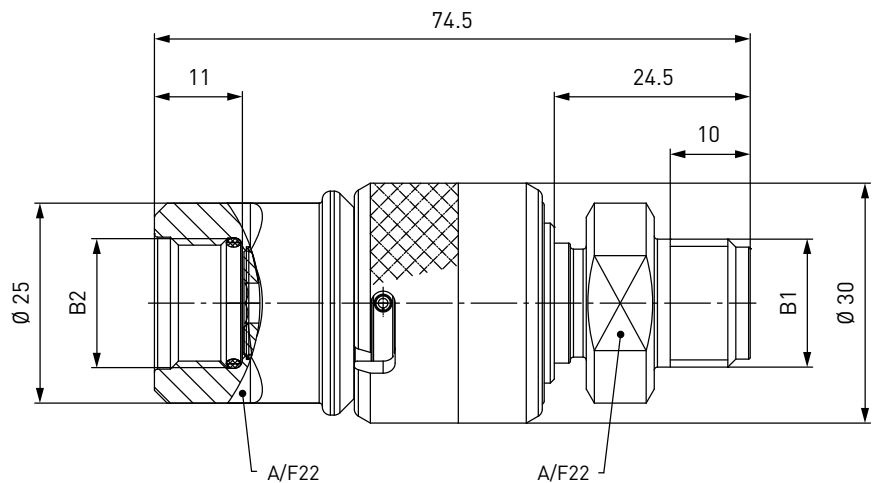


Part No.	Description	Inlet B1 (external thread)
C1-91241	TN350	M16x1.5

Quick Release Coupling **TK350-TN350**

ORDERING | WEH® TK350-TN350 Quick Release Coupling

approx. dimensions (mm)



Part No.	Description	Inlet B1 (external thread)	Connection B2 (internal thread)
C1-91242	TK350-TN350	M16x1.5	M16x1.5

Other connector sizes and versions on request.

Required information for ordering see page 7.

ACCESSORIES

The following accessories are available for the WEH® TK350-TN350 Quick Release Coupling:

Monel® construction

All pressurized parts are also available in Monel®. Please contact us!

Adaptors

Adaptors for connecting the TN350 quick coupling nipple to the filling hose are available on request.

» Swivel Joint TD1

DESCRIPTION



Features

- For free rotation of the WEH® Connector / filling hose in each position
- No twisting of filling hose
- High-grade materials

If a WEH® Connector has to be turned at zero pressure into the most convenient filling position, the TD1 swivel joint is the ideal option. It eliminates any twisting of the hose, when the cylinder is not in correct position.

The TD1 swivel joint is simply screwed onto the corresponding WEH® Connector.

Application

Swivel joint for axial aligning of the WEH® Connector.

TECHNICAL DATA

Characteristic	Basic version
Pressure range	PN = 320 bar PS = 400 bar PT = 600 bar PN = 340 bar PS = 420 bar PT = 630 bar (O ₂)
Temperature range	+5 °C up to +80 °C +5 °C up to +60 °C (O ₂)
Medium	Inert/flammable gases, oxygen
Material	Brass
Sealing material	Acc. to gas type
Registration	PED97/23/EC: CE0036 Adiabatic ignition test available

Other designs on request

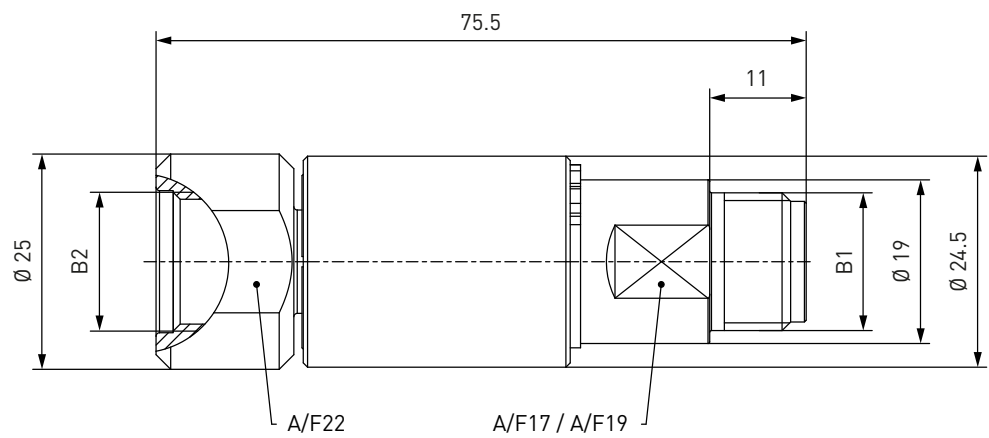
Example of use:



» Swivel Joint TD1

ORDERING | WEH® TD1 Swivel Joint

approx. dimensions (mm)



Part No.	Description	Inlet B1 (external thread)	Connection B2 (internal thread)
On request	TD1	M16x1.5	M16x1.5
On request	TD1	NPT 1/4"	NPT 1/4"

Other connector sizes and versions on request.

Required information for ordering see page 7.

ACCESSORIES

The following accessories are available for the WEH® TD1 Swivel Joint:

Spare parts

Various parts are available as spares for the TD1 swivel joint:

Part No.	Description
On request	Seal set

» Special Check Valve TVR2

DESCRIPTION



Features

- Extremely leak tight
- Very low noise when in use due to the optimised internal gas flow
- Wear and corrosion resistant
- Robust construction
- Simple installation

WEH has developed a new check valve specially designed for mounting into gas mixing plants. It is available for inert / flammable gases and oxygen.

The check valve system is designed to minimize the effect of dirt particles on the sealing components within the unit. The check valves are silent in use even under high flow conditions and offer high leak integrity, thus being perfectly suited for applications with gaseous media. They also feature robust interior construction making them very durable in operation.

Application

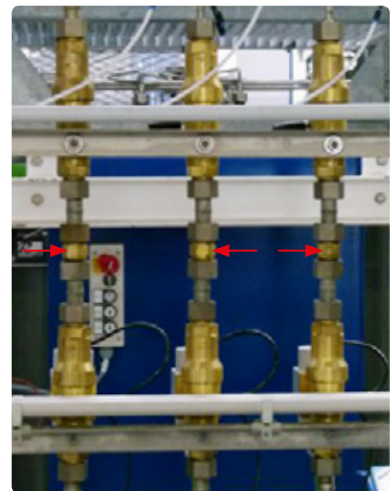
Check valve for use with gaseous media and for mounting into gas mixing plants.
Also suitable for vacuum applications.

TECHNICAL DATA

Characteristic	Basic version	
Nominal bore DN	12 mm	
Pressure range	PN = 350 bar PS = 420 bar PT = 630 bar	
Leak rate	5 x 10 ⁻³ mbar x l/s	
Medium	Inert/flammable gases	Oxygen
Temperature range	+5 °C up to +95 °C	+5 °C up to +60 °C
Material	Housing of brass, valve body of stainless steel	Housing of brass, valve body of Monel®
Ventilsitz	Cone seal of PEEK / corrosion resistant steel	Cone seal of copper / Monel®
Sealing material	EPDM	EPDM
Registration	PED97/23/EC: CE0036	PED97/23/EC: CE0036 Adiabatic ignition test available

Other designs on request

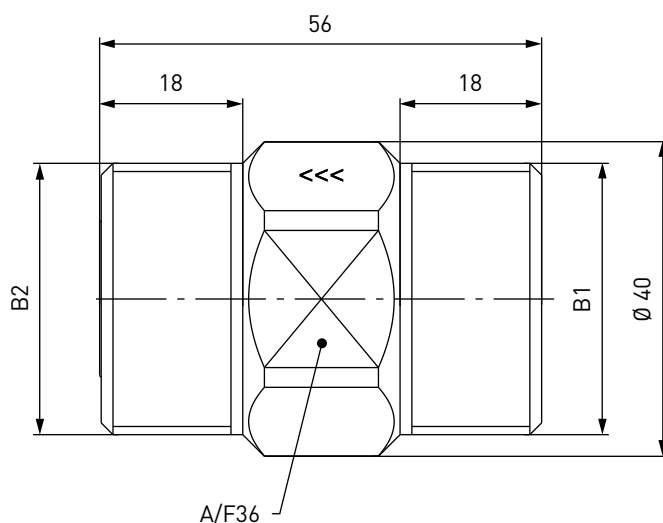
Example of use:



» Special Check Valve TVR2

ORDERING | WEH® TVR2 Special Check Valve

approx. dimensions (mm)



Part No.	Description	Cracking pressure PC (bar)	Inlet B1 (external thread)	Connection B2 (external thread)
C1-77200	TVR2	0.15 ± 0.05	UNF 1 3/8"-12*	UNF 1 3/8"-12*
C1-93517**	TVR2	0.22 ± 0.05	UNF 1 3/8"-12*	UNF 1 3/8"-12*

* acc. to SAE J514

** for oxygen

Other connector sizes and versions on request.

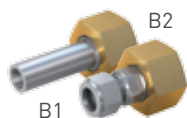
Required information for ordering see page 7.

ACCESSORIES

The following accessories are available for the WEH® TVR2 Special Check Valve:

Adaptors / welding adaptors

For the ports 'B1/B2' of the check valve various adaptors and welding adaptors are available.



Part No.	Description	Connection B1	Connection B2 (internal thread)
C1-98542	Adaptor	Tube Ø 12**	UNF 1 3/8"-12 plane sealing
C1-75267	Adaptor	Tube Ø 16***	UNF 1 3/8"-12 plane sealing
C1-75940	Adaptor	Tube Ø 16**	UNF 1 3/8"-12 plane sealing
C1-88193*	Welding adaptor	Tube Ø 20	UNF 1 3/8"-12 plane sealing
C1-84783	Welding adaptor	Tube Ø 16	UNF 1 3/8"-12 plane sealing

* for oxygen

** double ferrule fitting

*** 24° cone (Ermeto)

» Filter TSF4

DESCRIPTION



Features

- Suitable for mounting into gas mixing plants for filtration of air and gas
- Pressure resistant
- Wear and corrosion resistant
- Easy replacement of filter element
- Simple installation

Clean, filtered gases are a basic requirement in order to ensure the proper functioning of individual components in gas mixing plants. Specifically, seals can be damaged by dirt particles in the media flow.

The type TSF4 gas filter was developed to remove dirt particles in the gas flow and it is particularly useful in gas filling systems for inert gases like argon and nitrogen. The gas flows through the filter and the filter retains any dirt particles contained in the gas.

The type TSF4 is suitable for high pressure applications and is particularly easy to maintain. The wire filter insert can be removed for cleaning purposes without removing the media lines

Application

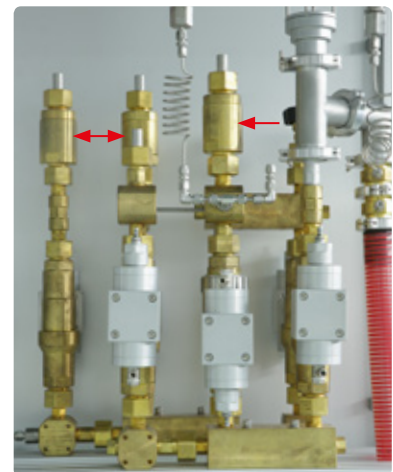
Filter for use with gaseous media and for mounting into gas mixing plants.

TECHNICAL DATA

Characteristic	Basic version	
Nominal bore DN	12 mm	
Pressure range	PN = 350 bar PS = 450 bar PT = 675 bar PN = 350 bar PS = 420 bar PT = 630 bar (O ₂)	
Medium	Inert/flammable gases	Oxygen
Temperature range	-40 °C up to +85 °C	+5 °C up to +60 °C
Material	Brass	Brass
Sealing material	EPDM / FKM	EPDM
Design	Incl. exchangeable filter (40 micron)	
Registration	PED97/23/EC: CE0036	PED97/23/EC: CE0036 Adiabatic ignition test available

Other designs on request

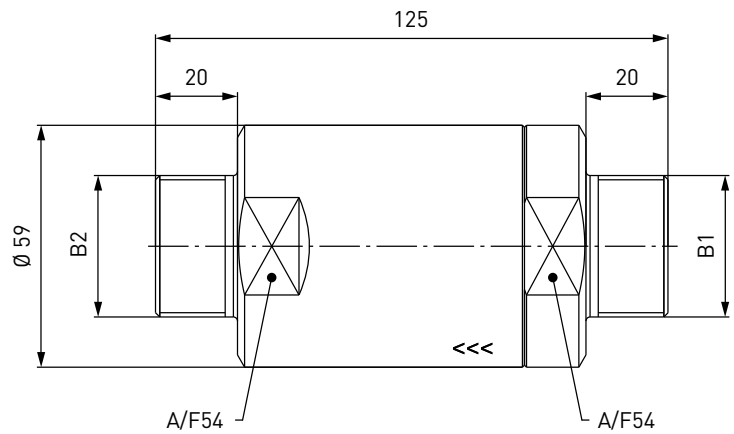
Example of use:



» Filter TSF4

ORDERING | WEH® TSF4 Filter

approx. dimensions (mm)



Part No.	Description	Inlet B1 (external thread)	Connection B2 (external thread)
C1-82292	TSF4	UNF 1 3/8"-12*	UNF 1 3/8"-12*
C1-92654**	TSF4	UNF 1 3/8"-12*	UNF 1 3/8"-12*
C1-125920***	TSF4	UNF 1 3/8"-12*	UNF 1 3/8"-12*

* acc. to SAE J514

** for oxygen

*** for methane

Other connector sizes and versions on request.

Required information for ordering see page 7.

ACCESSORIES

The following accessories are available for WEH® TSF4 Filter:

Spare parts

Various parts are available as spares for the TSF4 filter:

Part No.	Description
E69-9062	Wire filter insert 40 micron
E69-91040*	Wire filter insert 40 micron

* Monel® construction for oxygen

» Technical Appendix

Definitions

Abbreviation	Definition	
Pressure specifications		
PN	Nominal pressure	Nominal pressure after temperature compensation at 15 °C
PS	Max. operating pressure	<p>Maximum permissible operating pressure at 15 °C and normal conditions.</p> <p>The values mentioned in this catalogue have been measured at a temperature of 15 °C. Note: At higher operating temperatures the permissible operating pressure has to be reduced accordingly to compensate for the effect of heat weakening component materials. Example values see table: Technical notes → Pressure - temperature - compensation</p> <p>The admissible operating pressure has been determined as follows: 100,000 x cycles impacting the component with 125 % of PN The pressure wave is sinusoidal. The test is performed at a room temperature of approx. 20 °C.</p>
PT	Test pressure	Test pressure to which the component is tested for structural integrity during acceptance testing (normally PS x 1.43 up to 1.5)
PC	Cracking pressure	The input pressure at which the first indication of flow occurs
Dimensions		
L1, L2, L3 ...	Length specification	
D1, D2, D3 ...	Diameter specification	
Ports		
A	Customer-specific port (cylinder valve)	
B1, B2, B3 ...	Media ports	
P1, P2, P3 ...	Compressed air ports	
Others		
DN	Nominal diameter	
Micron	These specifications are nominal values	

Technical notes

Term	Definition
Temperature range	<p>The temperature ranges stated cover most common applications. The seal material used has higher or lower temperature limits dependant on material (e.g. NBR -30 °C up to +100 °C, FKM -20 °C up to +200 °C, EPDM -40 °C up to +150 °C). Under such extreme temperature conditions the suitability of WEH® Products to the application has to be checked specifically. If necessary, we can develop special solutions.</p>
Pressure - temperature - compensation	<p>For higher temperatures the max. operating pressure needs to be reduced dependant on the application. Possible values therefore are: 50 °C - 5 %, 100 °C - 10 %, 150 °C - 20 %. In case of doubt, please contact us! When using certain materials, for example plastics, the valves need to be further derated.</p>
Suitability for application	<p>When selecting a component, the total system design must be considered to ensure safe, trouble free performance. The correct selection of a component, material, temperature, pressure range as well as proper installation, operation and maintenance are the responsibility of the customer.</p>

» Brochure Data

Maximum care has been taken compiling this catalogue based on many years of experience.

However we must point out, that all catalogue data is only valid, if it was expressly confirmed in the individual order. We cannot guarantee the veracity of the data and the introductions in individual cases due to the large variety of applications for WEH® Products, and the unknown parameters and conditions of use. We have to refer to the individual order.

The limits of use for pressure, temperature etc. in this catalogue are theoretical data calculated on the basis of tests. Because of different operating conditions we cannot guarantee that the data do accord with the special use of the client. It has to be considered, that in the practical use interactive interferences of data parameters can cause the change of the maximum values. Especially if the operating conditions are extreme, the WEH company must be consulted before the use of the products. Therefore the requested values should be stated in the individual order, especially for extreme operating conditions.

Furthermore we point out, that we cannot guarantee for misprints, uncompleted data or misinterpretation. The illustration of the products is for demonstration only. The exact form and design of the product is only defined by the individual order. The brochure is only an integral part of the contract, if it is agreed expressly. Dimensions and other technical data in this catalogue are without obligation.

By the transfer of an up to date brochure or document all precursory versions will run out of validity. As a matter of principle the latest up to date version of brochures and other documents are valid. These versions can be inquired by the WEH company.

Our general terms and conditions and the agreement on protection of know-how and quality assurance are valid for consignments and all other services, unless otherwise agreed. We do not accept general terms and conditions of the purchaser.

» Other products

OTHER PRODUCTS OF WEH PRECISION CONNECTORS



Catalogue - High Pressure Valves TV17:

High pressure valves type TV17 for inert gases / oxygen up to 420 bar



Catalogue - Connector Solutions:

WEH® Connectors for pressure-tight connections in seconds to threads, beads, tubes, etc.



Catalogue - Refrigeration and Air Conditioning:

WEH® Connectors for filling, evacuating and testing of refrigeration and air conditioning components



Catalogue - Check Valves:

High performance check valves for liquid and gaseous media



» Design and production

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