

HYDRAULIC COUPLINGS TEMA®

Temperature Range:
-40°C up to +100°C (Nitrile)
-25°C up to +200°C (Viton)

Max Working Pressure:
Maximum static working pressure
with safety factor 4:1



Description: Thanks to the double O-Ring seal, this coupling system can be used for pressures of up to 320 bar for the T7500 Series and 300 bar for the T10000 Series. The coupling system is available with double shut-off, straight through or with single shut-off. Also available in stainless steel. For very heavy loads we recommend the use of the super plug.

Advantages: Straight through minimum pressure drop. Double safety through double O-Ring seal. A safety closing ring prevents unintentional uncoupling. Corrosion resistant.

Applications: Chemical industries off-shore, deep-sea technology, elevating mechanism, building machinery, materials handling technology and industrial plants.

Standard Version:

Coupling: Brass, chromated, nitrile seal.

Plug: Steel hardened, zinc chromated, nitrile seal.

Stainless Version: AISI 316, viton seal.

G3/4 TEMA Series T7500



Couplings



| Part Number | Thread | Pressure (bar) | Seal Material | Valve Operation |
|-------------|--------|----------------|---------------|-----------------|
| TE-7510 | G3/4 | 320 | Nitrile | With valve |
| TE-7510 UV | G3/4 | 320 | Nitrile | No valve |
| TE-7510 V | G3/4 | 320 | Viton | With valve |
| TE-7510 RV | G3/4 | 250 | Viton | With valve |
| TE-7510 VUV | G3/4 | 320 | Viton | No valve |

Couplings with Pressure Eliminator



| Part Number | Thread | Pressure (bar) | Seal Material | Valve Operation |
|-------------|--------|----------------|---------------|-----------------|
| TE-7511 | G3/4 | 320 | Nitrile | With valve |
| TE-7511 V | G3/4 | 320 | Viton | With valve |
| TE-7511 RFV | G3/4 | 250 | Viton | With valve |



Plugs



| Part Number | Thread | Pressure (bar) | Seal Material | Valve Operation |
|-------------|--------|----------------|---------------|-----------------|
| TE-7520 | G3/4 | 320 | Nitrile | With valve |
| TE-7520 UV | G3/4 | 320 | - | No valve |
| TE-7520 V | G3/4 | 320 | Viton | With valve |
| TE-7520 RV | G3/4 | 250 | Viton | With valve |

Plugs with Pressure Eliminator



| Part Number | Thread | Pressure (bar) | Seal Material | Valve Operation |
|-------------|--------|----------------|---------------|-----------------|
| TE-7521 | G3/4 | 320 | Nitrile | With valve |
| TE-7521 V | G3/4 | 320 | Viton | With valve |

Super Plug To be used
for very high loads



| Part Number | Thread | Pressure (bar) | Seal Material | Valve Operation |
|-------------|--------|----------------|---------------|-----------------|
| TE-7520 S | G3/4 | 320 | Nitrile | With valve |

G1 TEMA Series T10000



Couplings



| Part Number | Thread | Pressure (bar) | Seal Material | Valve Operation |
|-------------|--------|----------------|---------------|-----------------|
| TE-10010 | G1 | 300 | Nitrile | With valve |
| TE-10010 UV | G1 | 300 | Nitrile | No valve |
| TE-10010 V | G1 | 300 | Viton | With valve |
| TE-10010 RV | G1 | 250 | Viton | With valve |

Couplings with Pressure Eliminator



| Part Number | Thread | Pressure (bar) | Seal Material | Valve Operation |
|-------------|--------|----------------|---------------|-----------------|
| TE-10011 | G1 | 300 | Nitrile | With valve |
| TE-10011 V | G1 | 300 | Viton | With valve |



Plugs



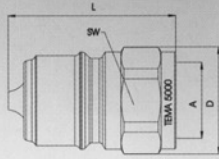
| Part Number | Thread | Pressure (bar) | Seal Material | Valve Operation |
|--------------|--------|----------------|---------------|-----------------|
| TE-10020 | G1 | 300 | Nitrile | With valve |
| TE-10020 UV | G1 | 300 | - | No valve |
| TE-10020 V | G1 | 300 | Viton | With valve |
| TE-10020 RV | G1 | 250 | Viton | With valve |
| TE-10020 RUV | G1 | 250 | - | No valve |

Plugs with Pressure Eliminator



| Part Number | Thread | Pressure (bar) | Seal Material | Valve Operation |
|-------------|--------|----------------|---------------|-----------------|
| TE-10021 | G1 | 300 | Nitrile | With valve |
| TE-10021 V | G1 | 300 | Viton | With valve |

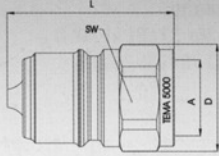
Plugs



Female Thread

| Connection A | SW* mm | L mm | D mm | Valve | Working pressure connected in bar | Version | Seal | Part Number |
|--------------|--------|------|------|---------|-----------------------------------|-----------------|---------|---------------|
| G 1/2 IG | 27 | 46 | 30 | with | 320 | Standard | Nitrile | T5020 |
| G 1/2 IG | 27 | 46 | 30 | with | 320 | Standard | Viton® | T5020 V |
| G 1/2 IG | 27 | 46 | 30 | with | 300 | Stainless Steel | Viton® | T5020 RV 3) |
| G 1/2 IG | 27 | 42 | 30 | without | 320 | Standard | – | T5020 UV |
| G 1/2 IG | 27 | 42 | 30 | without | 300 | Stainless Steel | – | T5020 RUV 3) |
| G 1/2 IG | 27 | 42 | 30 | without | 300 | Stainless Steel | – | T5020 RHUV 4) |

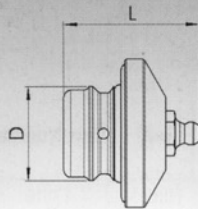
Plugs with Pressure Eliminator



Female Thread

| Connection A | SW* mm | L mm | D mm | Valve | Working pressure connected in bar | Version | Seal | Part Number |
|--------------|--------|------|------|-------|-----------------------------------|-----------------|---------|-----------------|
| G 1/2 IG | 27 | 47 | 30 | with | 320 | Standard | Nitrile | T5021 |
| G 1/2 IG | 27 | 47 | 30 | with | 320 | Standard | Viton® | T5021 V |
| G 1/2 IG | 27 | 47 | 30 | with | 300 | Stainless Steel | Viton® | T5021 RV 3) |
| G 1/2 IG | 27 | 47 | 30 | with | 300 | Stainless Steel | Viton® | T5021 RFV 1) 3) |

Lubrication Nipple



Description

L mm
D mm

Part Number

Coupling

41

25

TGR5

Seal-Kit

Description

Material

Part Number

Coupling

Nitrile

T5000-PSN

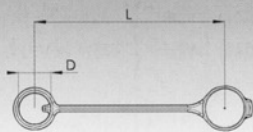
Coupling

Viton®

T5000-PSV

Further sealing materials on request.

Dust Protection



Description

L mm

D mm

Material

Colour

Part Number

Coupling

170

60

PVC

Blue

T5016

Plug

170

52

PVC

Blue

T5026

Further colours on request.

1) Valve made of brass

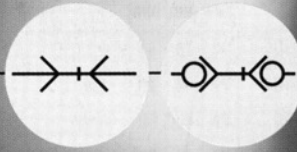
2) Suitable for high pressure water, AISI 303

3) For pulsating pressure, the pressure must not exceed 50% of the given value.

4) Material, AISI 420 hardened
* SW = dimension over flats

Nominal Diameter **20** = 314 mm²

T7500 series



Technical Description

The coupling system is available as straight-through and double shut-off version. Also available in stainless steel. For very high loads we recommend the use of the "super nipple".

Connected length in total: 91 mm

Advantages

Straight-through – minimum pressure drop. Double safety through a double O-ring seal. A safety closing ring prevents

unintentional uncoupling. Corrosion-resistant. Compact dimensions. Pressure eliminator is available for coupling and plug. With pressure eliminator, can be coupled up to operating pressure.

Applications

Chemical industries, Off-Shore, deep-sea technology, elevating mechanism, building machinery, materials-handling technology, industrial plant.

Working Pressure

See chart.

Working Temperature

-40°C up to +100°C (Nitrile)
-25°C up to +200°C (Viton®)

- The sealing material also depends on the flow medium.
- Couplings for higher temperatures on request.

Material

Coupling

Coupling Body
Sleeve
Locking Ring
Valve
Springs
Locking Balls
Seals
Valve Holder

Standard Version

Brass, Chromated
Steel Hardened, Yellow Zinc-plated
Brass, Zinc Chromate Conversion Coated
Brass
AISI 301
AISI 420 C
Nitrile/Viton®
Brass

Stainless Steel

AISI 316
AISI 316
AISI 316
AISI 316
AISI 301
AISI 420 C
Viton®
AISI 316

Plug

Plug Connection Face

Valve
Springs
Seals
Valve Holder

Steel Hardened, Yellow Zinc-plated, Aquarez-treated
Brass
AISI 301
Nitrile/Viton®
Brass

AISI 316

Pressures

Bursting Pressure coupled
Working Pressure uncoupled

Coupling

>1120 bar
200 bar

Plug

>1120 bar
200 bar

Coupling

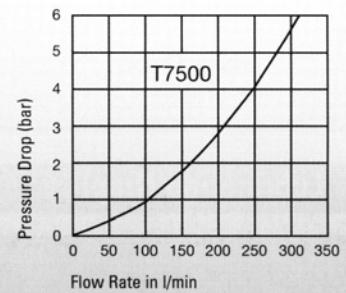
>1000 bar
200 bar

Plug

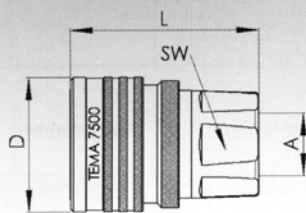
>1000 bar
200 bar

Flow Capacity

Viscosity for 32cSt at 40°C
as per ISO 7241/2-2000



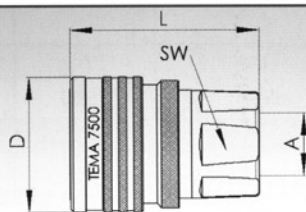
Couplings



Female Thread

| Connection A | SW* mm | L mm | D mm | Valve | Working pressure connected in bar | Version | Seal | Part Number |
|--------------|--------|------|------|---------|-----------------------------------|-----------------|---------|---------------|
| G 3/4 IG | 38 | 72 | 52 | with | 280 | Standard | Nitrile | T7510 |
| G 3/4 IG | 38 | 72 | 52 | with | 280 | Standard | Viton® | T7510 V |
| G 3/4 IG | 38 | 72 | 52 | with | 250 | Stainless Steel | Viton® | T7510 RV 2) |
| G 3/4 IG | 38 | 72 | 52 | without | 280 | Standard | Nitrile | T7510 UV |
| G 3/4 IG | 38 | 72 | 52 | without | 280 | Standard | Viton® | T7510 VUV |
| G 3/4 IG | 38 | 72 | 52 | without | 250 | Stainless Steel | Viton® | T7510 RVUV 2) |

Couplings with Pressure Eliminator

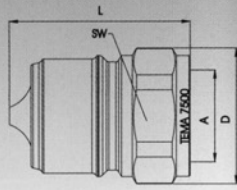


Female Thread

| Connection A | SW* mm | L mm | D mm | Valve | Working pressure connected in bar | Version | Seal | Part Number |
|--------------|--------|------|------|-------|-----------------------------------|-----------------|---------|-----------------|
| G 3/4 IG | 38 | 72 | 52 | with | 280 | Standard | Nitrile | T7511 |
| G 3/4 IG | 38 | 72 | 52 | with | 280 | Standard | Viton® | T7511 V |
| G 3/4 IG | 38 | 72 | 52 | with | 250 | Stainless Steel | Viton® | T7511 RV 2) |
| G 3/4 IG | 38 | 72 | 52 | with | 250 | Stainless Steel | Viton® | T7511 RFV 1) 2) |

* SW = dimension over flats

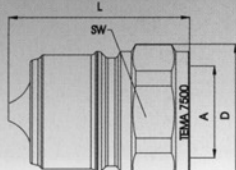
Plugs



Female Thread

| Connection A | SW* mm | L mm | D mm | Valve | Working pressure connected in bar | Version | Seal | Part Number |
|--------------|--------|------|------|---------|-----------------------------------|-----------------|---------|--------------|
| G 3/4 IG | 36 | 52 | 39 | with | 300 | Standard | Nitrile | T7520 |
| G 3/4 IG | 36 | 52 | 39 | with | 300 | Standard | Viton® | T7520 V |
| G 3/4 IG | 36 | 52 | 39 | with | 250 | Stainless Steel | Viton® | T7520 RV 2) |
| G 3/4 IG | 36 | 47 | 39 | without | 300 | Standard | – | T7520 UV |
| G 3/4 IG | 36 | 47 | 39 | without | 250 | Stainless Steel | – | T7520 RUV 2) |

Plugs with Pressure Eliminator



Female Thread

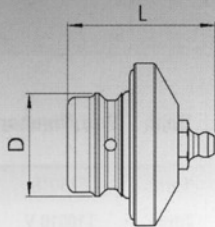
| Connection A | SW* mm | L mm | D mm | Valve | Working pressure connected in bar | Version | Seal | Part Number |
|--------------|--------|------|------|-------|-----------------------------------|-----------------|---------|-----------------|
| G 3/4 IG | 36 | 53 | 39 | with | 300 | Standard | Nitrile | T7521 |
| G 3/4 IG | 36 | 53 | 39 | with | 300 | Standard | Viton® | T7521 V |
| G 3/4 IG | 36 | 53 | 39 | with | 250 | Stainless Steel | Viton® | T7521 RV 2) |
| G 3/4 IG | 36 | 53 | 39 | with | 250 | Stainless Steel | Viton® | T7521 RFV 1) 2) |

Super Nipple

for technical drawing see plugs

| Connection A | SW* mm | L mm | D mm | Valve | Working pressure connected in bar | Version | Seal | Part Number |
|--------------|--------|------|------|-------|-----------------------------------|----------|---------|-------------|
| G 3/4 IG | 36 | 52 | 39 | with | 300 | Standard | Nitrile | T7520 S |
| G 3/4 IG | 36 | 52 | 39 | with | 300 | Standard | Nitrile | T7521 S |

Lubrication Nipple



Description

L mm
D mm

Part Number

Coupling

44 33

TGR7

Seal-Kit

Description

Material

Part Number

Coupling

Nitrile

T7500-PSN

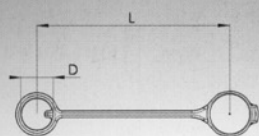
Coupling

Viton®

T7500-PSV

Further sealing materials on request.

Dust Protection



Description

L mm
D mm

Material

Colour

Part Number

Coupling

195 76

PVC

Blue

T7516

Plug

195 63

PVC

Blue

T7526

Further colours on request.

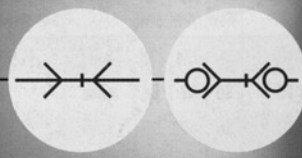
1) Valve made of brass

2) For pulsating pressure, the pressure must not exceed 50% of the given value.

* SW = dimension over flats

Nominal Diameter **25** = 490 mm²

T10000 series



60% of actual size

Technical Description

The coupling system is available as straight-through and double shut-off version. Also available in stainless steel.

Connected length in total: 108 mm

Advantages

Straight-through – minimum pressure drop. Double safety through a double O-ring seal. A safety closing ring prevents unintentional uncoupling.

Corrosion-resistant. Compact dimensions. Pressure eliminator is available for coupling and plug. With pressure eliminator, can be coupled up to operating pressure.

Applications

Chemical industries, Off-Shore, deep-sea technology, elevating mechanism, building machinery, materials-handling technology, industrial plant.

Working Pressure

See chart.

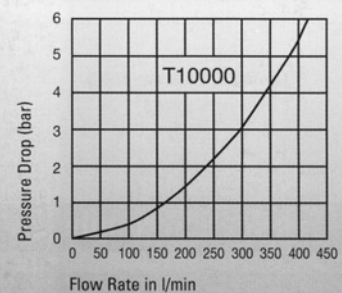
Working Temperature

-40°C up to +100°C (Nitrile)
-25°C up to +200°C (Viton®)

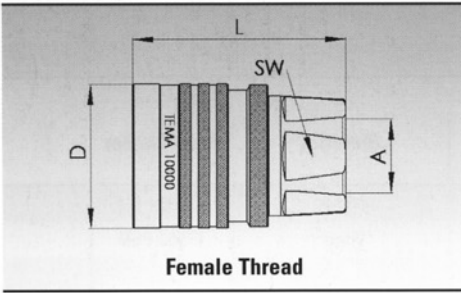
- The sealing material also depends on the flow medium.
- Couplings for higher temperatures on request.

| Material | Standard Version | Stainless Steel |
|----------------------------|---|-----------------|
| Coupling | | |
| Coupling Body | Brass, Chromated | AISI 316 |
| Sleeve | Steel Hardened, Yellow Zinc-plated | AISI 316 |
| Locking Ring | Brass, Zinc Chromate Conversion Coated | AISI 316 |
| Valve | Brass | AISI 316 |
| Springs | AISI 301 | AISI 301 |
| Locking Balls | AISI 420 C | AISI 420 C |
| Seals | Nitrile/Viton® | Viton® |
| Valve Holder | Brass | AISI 316 |
| Plug | | |
| Plug Connection Face | Steel Hardened, Yellow Zinc-plated, Aquarez-treated | AISI 316 |
| Valve | Brass | AISI 316 |
| Springs | AISI 301 | AISI 301 |
| Seals | Nitrile/Viton® | Viton® |
| Valve Holder | Brass | AISI 316 |
| Pressures | Coupling | Plug |
| Bursting Pressure coupled | >930 bar | >930 bar |
| Working Pressure uncoupled | 200 bar | 250 bar |
| | | >200 bar |
| | | 50 bar |
| | | >1000 bar |
| | | 200 bar |

Flow Capacity
Viscosity for 32cSt at 40°C
as per ISO 7241/2-2000

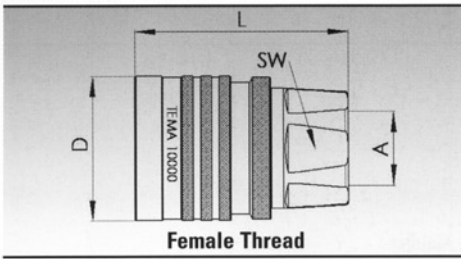


Couplings



| Connection A | SW* mm | L mm | D mm | Valve | Working pressure connected in bar | Version | Seal | Part Number |
|--------------|--------|------|------|---------|-----------------------------------|-----------------|---------|----------------|
| G 1 IG | 45 | 88 | 62 | with | 250 | Standard | Nitrile | T10010 |
| G 1 IG | 45 | 88 | 62 | with | 250 | Standard | Viton® | T10010 V |
| G 1 IG | 45 | 88 | 62 | with | 250 | Stainless Steel | Viton® | T10010 RV 2) |
| G 1 IG | 45 | 88 | 62 | without | 250 | Standard | Nitrile | T10010 UV |
| G 1 IG | 45 | 88 | 62 | without | 250 | Standard | Viton® | T10010 VUV |
| G 1 IG | 45 | 88 | 62 | without | 250 | Stainless Steel | Viton® | T10010 RVUV 2) |

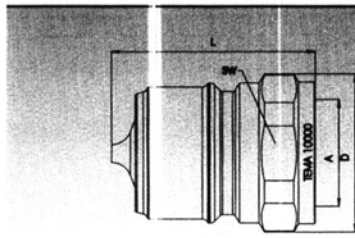
Couplings with Pressure Eliminator



| Connection A | SW* mm | L mm | D mm | Valve | Working pressure connected in bar | Version | Seal | Part Number |
|--------------|--------|------|------|-------|-----------------------------------|-----------------|---------|------------------|
| G 1 IG | 45 | 88 | 62 | with | 250 | Standard | Nitrile | T10011 |
| G 1 IG | 45 | 88 | 62 | with | 250 | Standard | Viton® | T10011 V |
| G 1 IG | 45 | 88 | 62 | with | 250 | Stainless Steel | Viton® | T10011 RV 2) |
| G 1 IG | 45 | 88 | 62 | with | 250 | Stainless Steel | Viton® | T10011 RFV 1) 2) |

* SW = dimension over flats

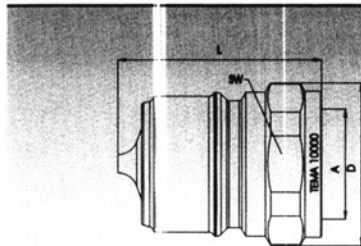
Plugs



Female Thread

| Connection A | SW* mm | L mm | D mm | Valve | Working pressure connected in bar | Version | Seal | Part Number |
|--------------|--------|------|------|---------|-----------------------------------|-----------------|---------|---------------|
| G 1 IG | 46 | 60 | 49 | with | 280 | Standard | Nitrile | T10020 |
| G 1 IG | 46 | 60 | 49 | with | 280 | Standard | Viton® | T10020 V |
| G 1 IG | 46 | 60 | 49 | with | 50 | Brass | Nitrile | T10020 M |
| G 1 IG | 46 | 60 | 49 | with | 50 | Brass | Viton® | T10020 MV |
| G 1 IG | 46 | 60 | 49 | with | 250 | Stainless Steel | Viton® | T10020 RV 2) |
| G 1 IG | 46 | 53 | 49 | without | 280 | Standard | - | T10020 UV |
| G 1 IG | 46 | 53 | 49 | without | 50 | Brass | - | T10020 MUV |
| G 1 IG | 46 | 53 | 49 | without | 250 | Stainless Steel | - | T10020 RUV 2) |

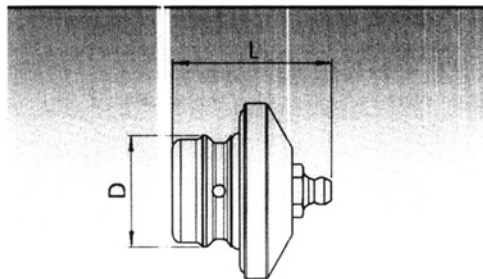
Plugs with Pressure Eliminator



Female Thread

| Connection A | SW* mm | L mm | D mm | Valve | Working pressure connected in bar | Version | Seal | Part Number |
|--------------|--------|------|------|-------|-----------------------------------|-----------------|---------|------------------|
| G 1 IG | 46 | 61 | 49 | with | 280 | Standard | Nitrile | T10021 |
| G 1 IG | 46 | 61 | 49 | with | 280 | Standard | Viton® | T10021 V |
| G 1 IG | 46 | 61 | 49 | with | 250 | Stainless Steel | Viton® | T10021 RV 2) |
| G 1 IG | 46 | 61 | 49 | with | 250 | Stainless Steel | Viton® | T10021 RFV 1) 2) |

Lubrication Nipple

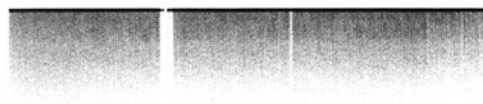


Description

Coupling

| L mm | D mm | Part Number |
|------|------|-------------|
| 46 | 41 | TGR10 |

Seal-Kit



Description

Coupling
Coupling

Material

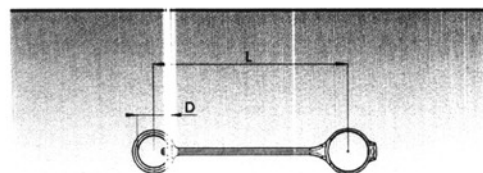
Nitrile
Viton®

Part Number

T10000-PSN
T10000-PSV

Further sealing materials on request.

Dust Protection



Description

Coupling
Plug

L mm
D mm

230 90
230 76

Material

PVC
PVC

Colour

Blue
Blue

Part Number

T10016
T10026

Further colours on request.

1) Valve made of brass

2) For pulsating pressure, the pressure must not exceed 50% of the given value.

* SW = dimension over flats