

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



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



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



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



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



TE-7520 S	G3/4	320	Nitrile	With valve
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G1 TEMA Series T10000



Couplings



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



TE-10011	G1	300	Nitrile	With valve
TE-10011 V	G1	300	Viton	With valve



Plugs



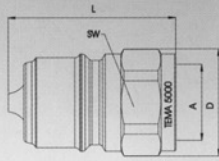
TE-10020	G1	300	Nitrile	With valve
TE-10020 UV	G1	300	-	No valve
TE-10020 V	G1	300	Viton	With valve
TE-10020 RV	G1	250	Viton	With valve
TE-10020 RUV	G1	250	-	No valve

Plugs with Pressure Eliminator



TE-10021	G1	300	Nitrile	With valve
TE-10021 V	G1	300	Viton	With valve

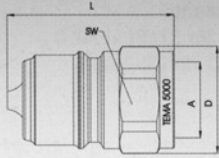
Plugs



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)

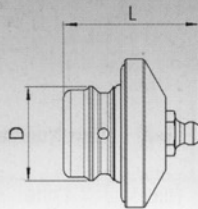
Plugs with Pressure Eliminator



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

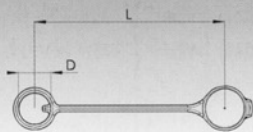
Coupling

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

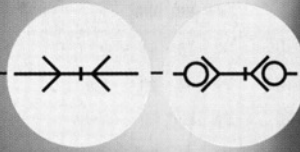
2) Suitable for high pressure water, AISI 303

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



65% of actual size

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

AISI 316
AISI 301
Viton®
AISI 316

Pressures

Bursting Pressure coupled
Working Pressure uncoupled

Coupling

>1120 bar
200 bar

Plug

>1120 bar
200 bar

Coupling

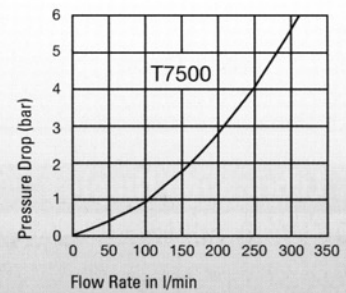
>1000 bar
200 bar

Plug

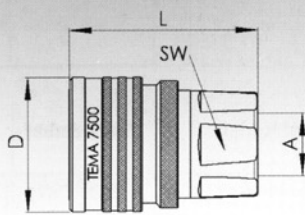
>1000 bar
200 bar

Flow Capacity

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



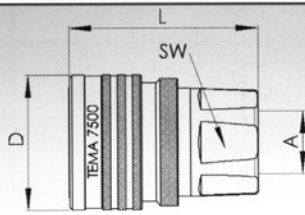
Couplings



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

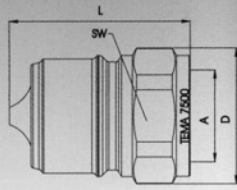


Female Thread

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

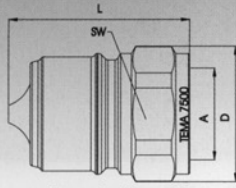
Plugs



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

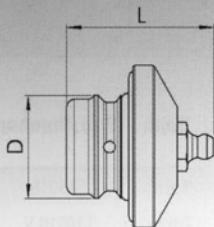
Connection A	SW* mm	L mm	D mm	Valve	Working pressure connected in bar	Version	Seal	Part Number
G 3/4 IG	36	53	39	with	300	Standard	Nitrile	T7521
G 3/4 IG	36	53	39	with	300	Standard	Viton®	T7521 V
G 3/4 IG	36	53	39	with	250	Stainless Steel	Viton®	T7521 RV 2)
G 3/4 IG	36	53	39	with	250	Stainless Steel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

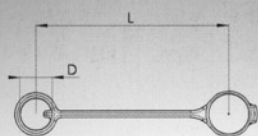
Coupling

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.

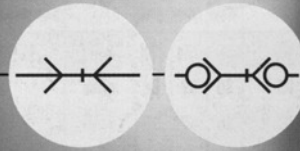
1) Valve made of brass

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
Sleeve
Locking Ring
Valve
Springs
Locking Balls
Seals
Valve Holder

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

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

Brass Version

Brass
Brass
AISI 301
Nitrile/Viton®
Brass

AISI 316
AISI 316
AISI 301
Viton®
AISI 316

Pressures

Bursting Pressure coupled
Working Pressure uncoupled

Coupling

>930 bar
200 bar

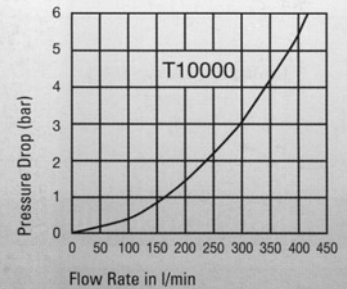
Plug

>930 bar
250 bar

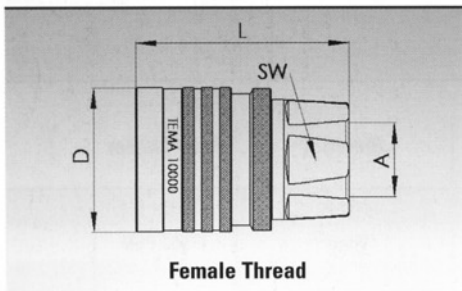
>200 bar
50 bar

>1000 bar
200 bar

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



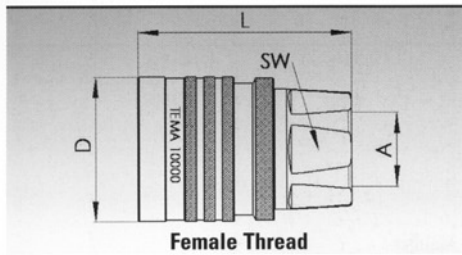
Couplings



Female Thread

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

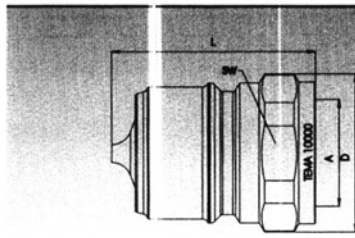


Female Thread

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

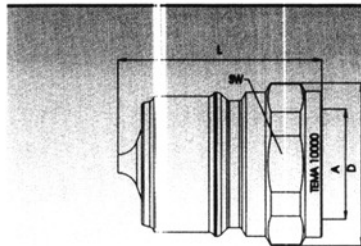
Plugs



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)

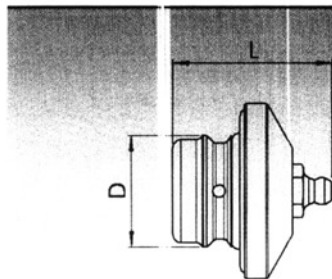
Plugs with Pressure Eliminator



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

L mm D mm Part Number

Coupling

46 41

TGR10

Seal-Kit

Description

Material

Part Number

Coupling

Nitrile

T10000-PSN

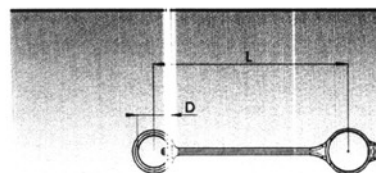
Coupling

Viton®

T10000-PSV

Further sealing materials on request.

Dust Protection



Description

L mm D mm

Material

Colour

Part Number

Coupling

230 90

PVC

Blue

T10016

Plug

230 76

PVC

Blue

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