



T-BLOCK

LOCKABLE SERIES

2020 CATALOGUE

GASFEDERN – GAS SPRING – MOLLA A GAS



Discover
the potential

UNICERT
ISO 9001:2015



About Our Company

From Tradition
to Innovation

TGS started its industry adventure in early 70s by the producon of machining products for gas springs and various fields of industry. Our early gas spring producon steps started in 1992.

Day afer day we improved our manufacturing technologies and machinery equipments and caught world standards. In 2008 we started exporting our products to european countries and established our export company Tunatek Ltd. Co. for organizing our all export operations.

More than a quarter century of experience in gas spring producon ensures us self-confidence to provide our products all high level markets. Today we manufacture 5 different series in steel and stainless steel materials and dozens of different functions. Customers from about 50 countries and dozen of different industrial sectors rely on different kinds of gas springs made by TGS.



Quality Policy



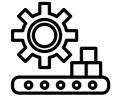
All our products are designed, manufactured and delivered according to the most strict quality standards. Our experienced and specially trained employees monitor the adherence to our quality criteria in every phase of the production process. Tunalift gas springs are manufactured with the highest quality, environmentally friendly materials.

We are certified in accordance with DIN ISO 9001:2015. Our quality program starts with implementing strict quality controls on our purchase transactions. Permanent quality is guaranteed due to the uncompromisingly monitoring of raw materials, an aggressive testing program and a redundant quality control program throughout the production process.

TGS products are continuously tested to ensure reliability, long life and over all product safety for your highest satisfaction. Using our test and development laboratory, products and technology are constantly being improved.



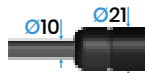
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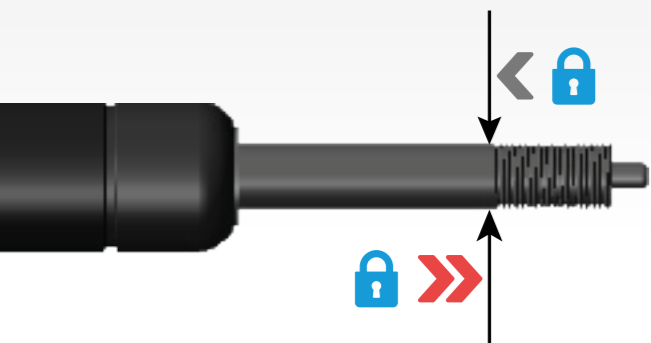


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T-BLOCK LOCKABLE SERIES



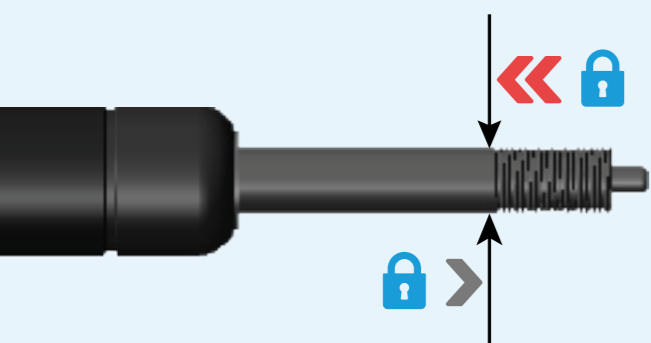
Rigid locking in extension



10/21
10/27



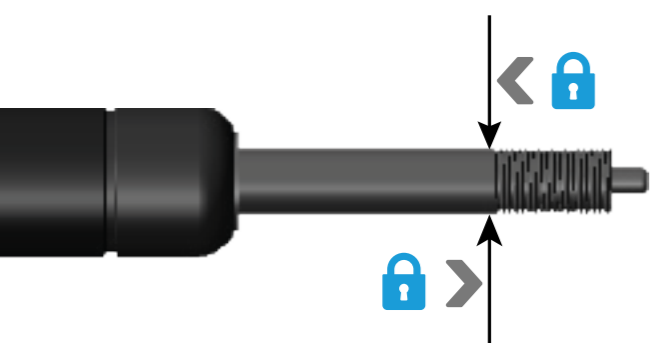
Rigid locking in compression



10/21
10/27



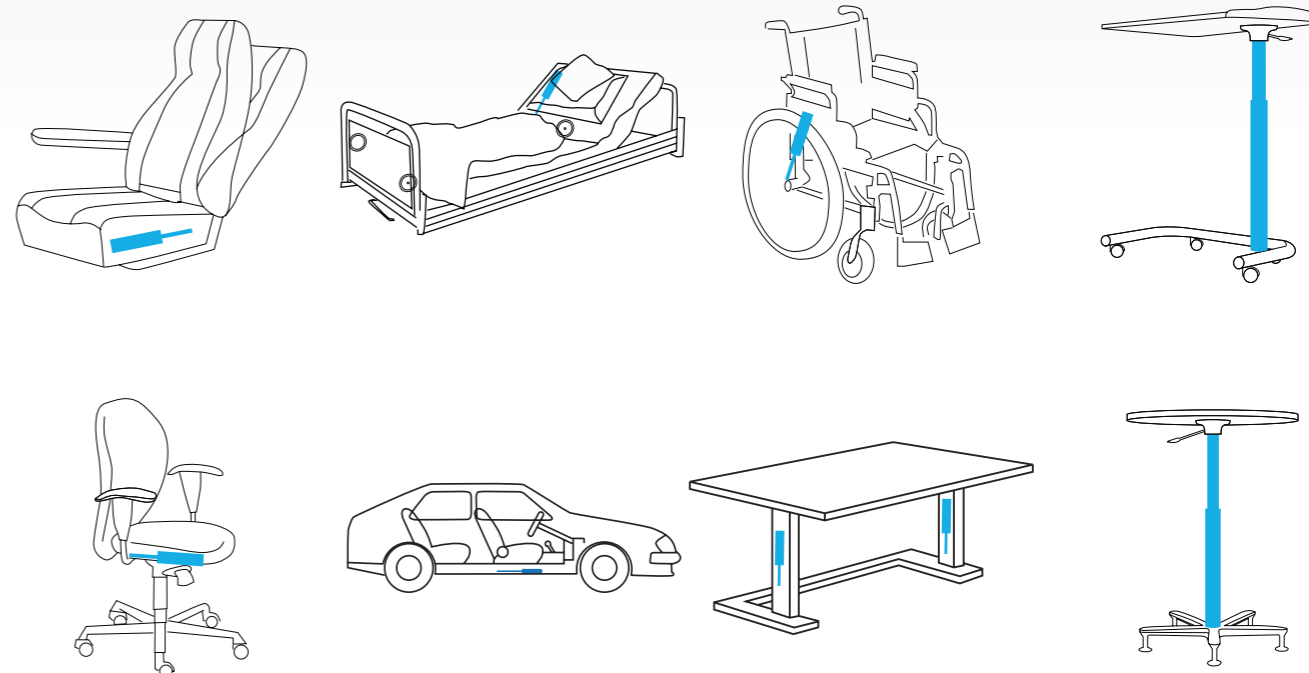
Elastic locking



10/21
10/27



APPLICATION FIELDS OF T-BLOCK GAS SPRINGS



DEMONSTRATION VIDEO

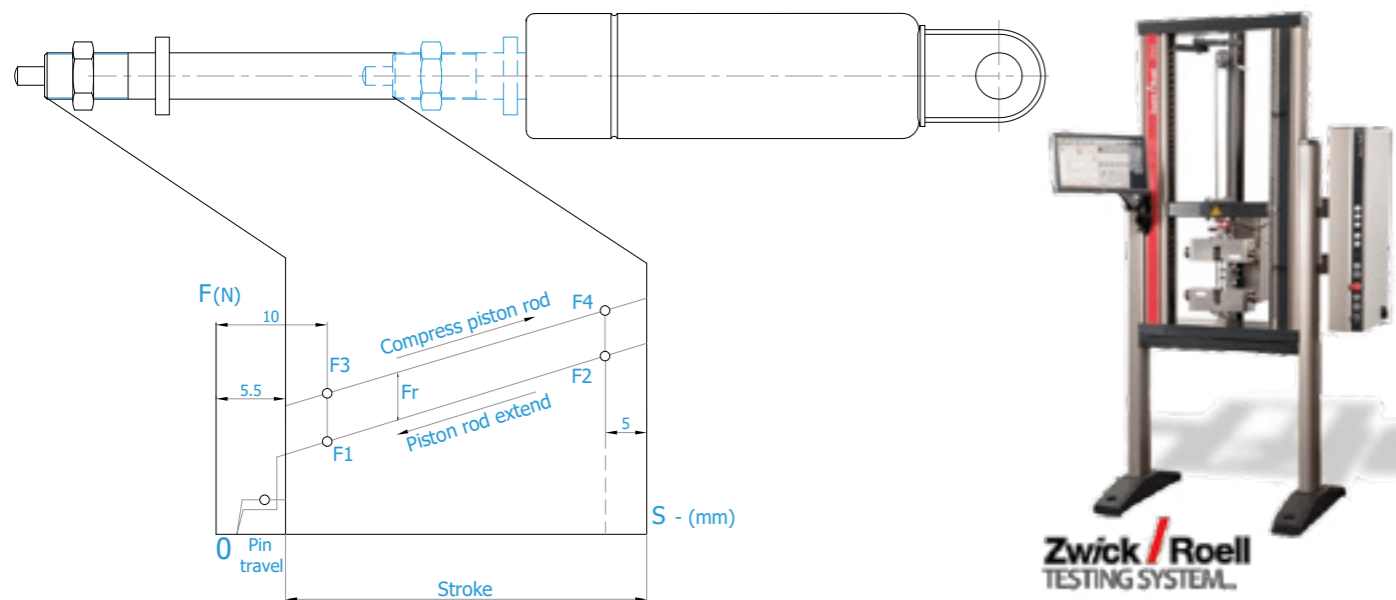


Scan for watch video on youtube

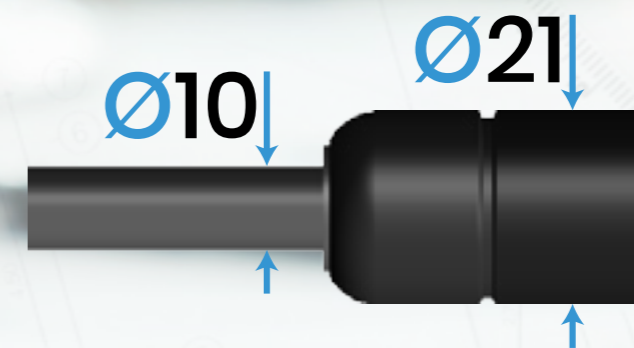


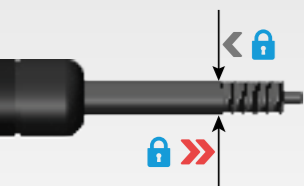
Spring Characteristics

T-BLOCK SERIES



The spring characteristic curve shows the force path of the gas spring over the stroke, from the extended to the retracted state and back. The spring characteristic illustrates the balance of power of F_2/F_1 . For the design of gas springs, the force F_1 is, in addition to the dimensions, the most important criterion. The force F_1 is measured 5mm before the end of the extension movement and thus defies the value of the spring force.





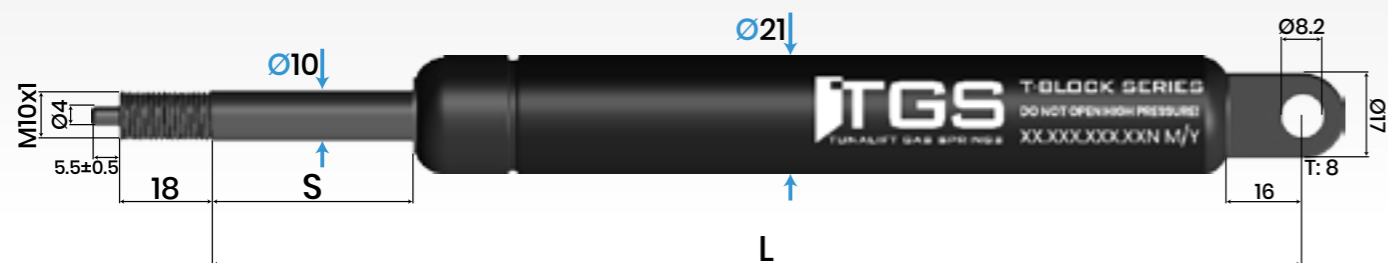
REFERENCE NO

SQ.20.180.200N

Rigid locking in extension
select from list



Order Example



| S | L | F1 | REF. NO |
|---------------|-----------------|---------------|---------------|
| STROKE LENGTH | EXTENDED LENGTH | PRESSURE RATE | |
| 20 | 162 | 200N - 800N | SQ.20.162.F1 |
| 30 | 192 | 200N - 800N | SQ.30.192.F1 |
| 40 | 212 | 200N - 800N | SQ.40.212.F1 |
| 60 | 262 | 200N - 800N | SQ.60.262.F1 |
| 80 | 312 | 200N - 800N | SQ.80.312.F1 |
| 100 | 367 | 200N - 800N | SQ.100.367.F1 |
| 120 | 422 | 200N - 800N | SQ.120.422.F1 |
| 160 | 537 | 200N - 800N | SQ.160.537.F1 |
| 200 | 647 | 200N - 800N | SQ.200.647.F1 |
| 250 | 792 | 200N - 800N | SQ.250.792.F1 |

Control Units;

Select control unit type



Lever Control

Find more details on page 19



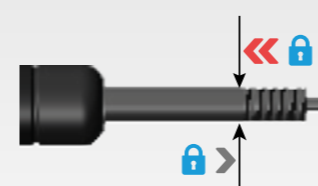
Wire Control

Find more details on page 23



Hydraulic Control

Find more details on page 25



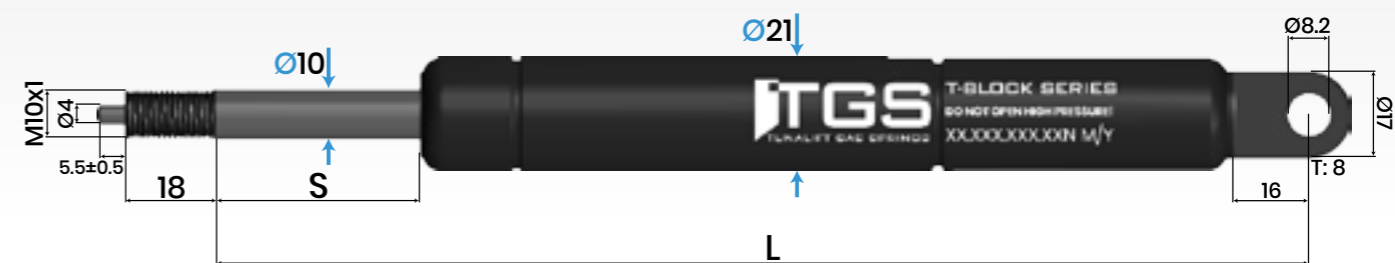
REFERENCE NO

RG.20.187.200N

Rigid locking in compression
select from list



Order Example



| S | L | F1 | REF. NO |
|---------------|-----------------|---------------|---------------|
| STROKE LENGTH | EXTENDED LENGTH | PRESSURE RATE | |
| 30 | 217 | 200N - 800N | RG.30.217.F1 |
| 40 | 237 | 200N - 800N | RG.40.237.F1 |
| 80 | 312 | 200N - 800N | RG.80.312.F1 |
| 100 | 402 | 200N - 800N | RG.100.402.F1 |
| 120 | 467 | 200N - 800N | RG.120.467.F1 |

Control Units;

Select control unit type



Lever Control

Find more details on page 19



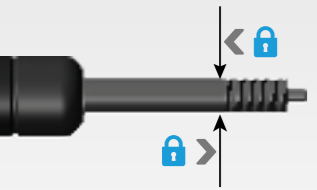
Wire Control

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Hydraulic Control

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REFERENCE NO

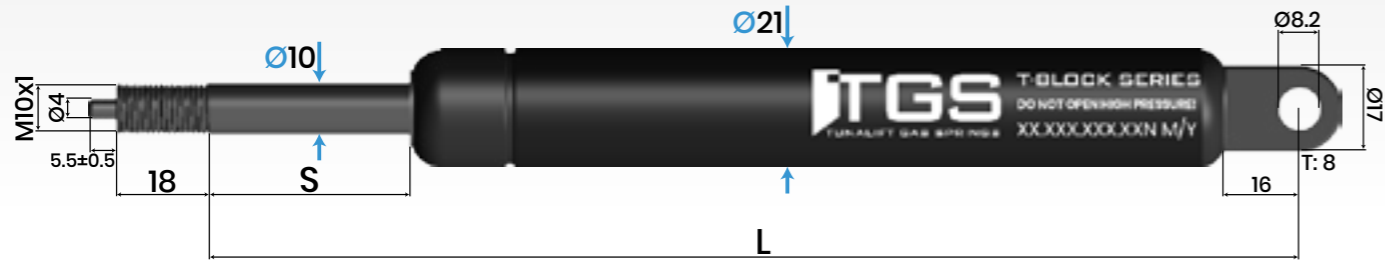
PJ.20.137.200N

Elastic locking

select from list



Order Example



| S | L | F1 | REF. NO |
|---------------|-----------------|---------------|---------------|
| STROKE LENGTH | EXTENDED LENGTH | PRESSURE RATE | |
| 20 | 137 | 200N - 800N | PJ.20.137.F1 |
| 30 | 152 | 200N - 800N | PJ.30.152.F1 |
| 40 | 172 | 200N - 800N | PJ.40.172.F1 |
| 60 | 210 | 200N - 800N | PJ.60.210.F1 |
| 80 | 257 | 200N - 800N | PJ80.257.F1 |
| 100 | 292 | 200N - 800N | PJ.100.292.F1 |
| 120 | 372 | 200N - 800N | PJ.120.372.F1 |
| 160 | 417 | 200N - 800N | PJ.160.417.F1 |
| 200 | 497 | 200N - 800N | PJ.200.497.F1 |
| 250 | 697 | 200N - 800N | PJ.250.697.F1 |

Control Units;

Select control unit type



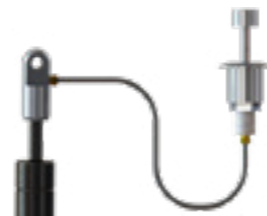
Lever Control

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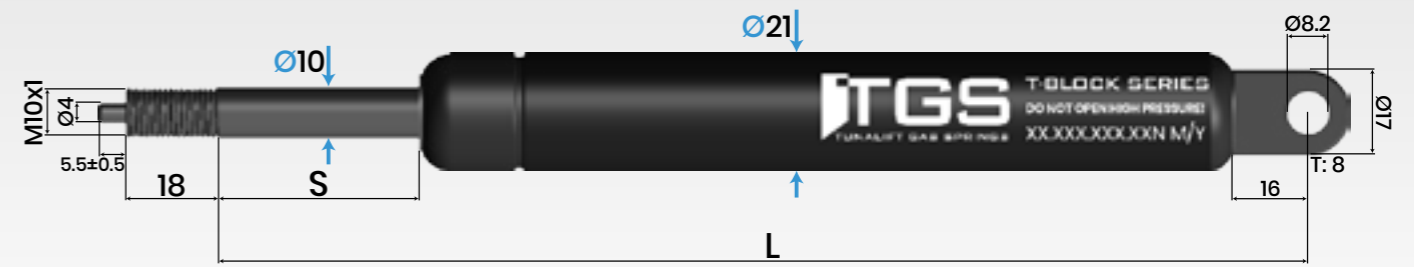
Wire Control

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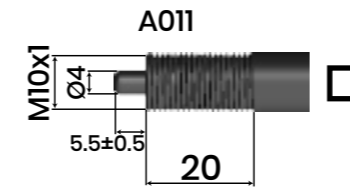
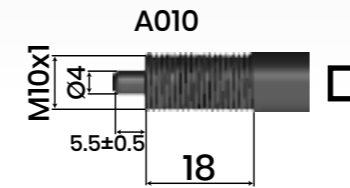


Hydraulic Control

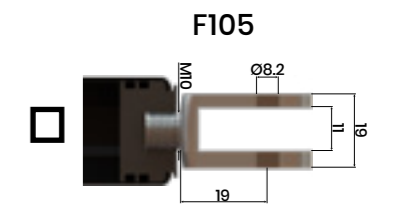
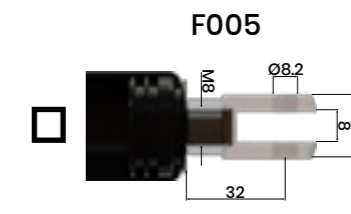
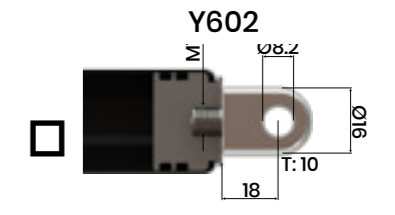
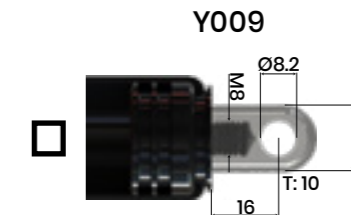
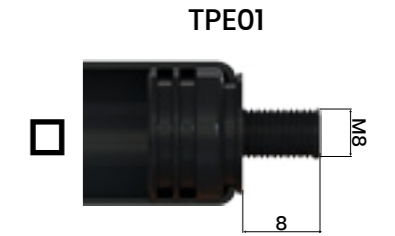
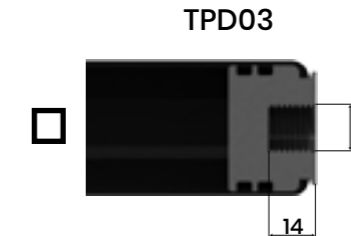
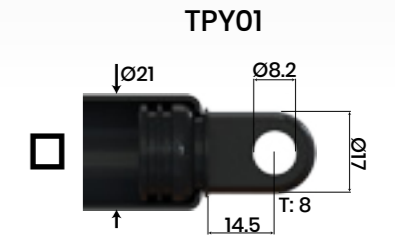
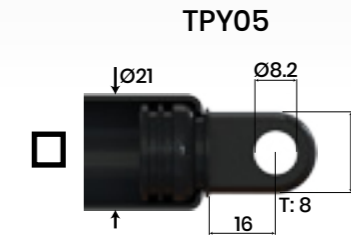
Find more details on page 25



Rod Side Connector



Tube Side Connector



Locking Type

G21: Rigid locking in extension

K21: Rigid locking in compression

E21: Elastic locking

Stroke (S)

G21 = (Stroke x 2) + 75mm

K21 = (Stroke x 2) + 80mm

E21 = (Stroke x 2) + 68mm

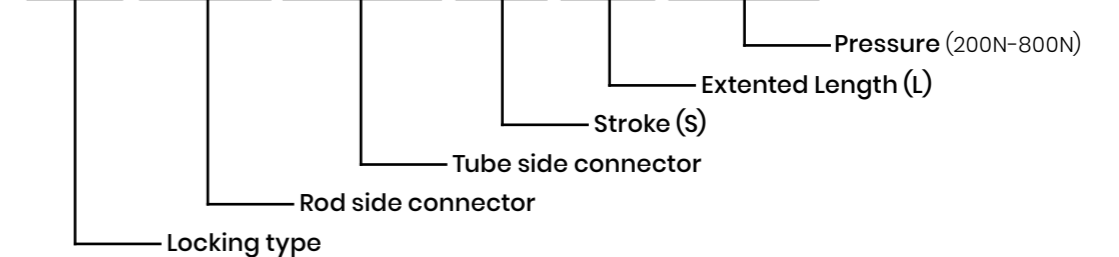
Minimum Extended Length (L)

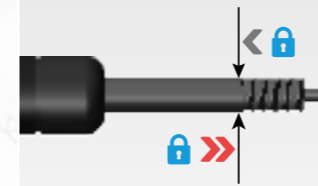
G21 = (Stroke x 2) + 75mm

K21 = (Stroke x 2) + 80mm

E21 = (Stroke x 2) + 68mm

G21.A010.TPY01.160.537.500N



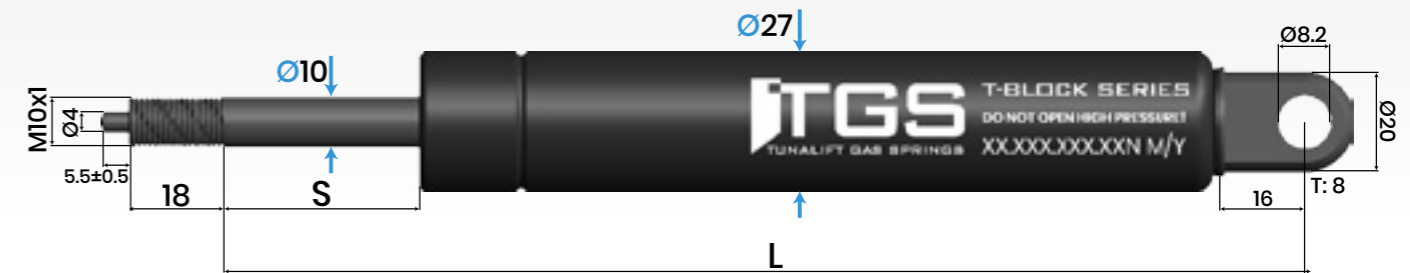


REFERENCE NO

UN.20.187.200N

Rigid locking in extension
select from list

 **Order Example**



| S | L | F1 | REF. NO |
|---------------|-----------------|---------------|---------------|
| STROKE LENGTH | EXTENDED LENGTH | PRESSURE RATE | |
| 20 | 172 | 200N - 1000N | UN.20.172.F1 |
| 30 | 202 | 200N - 1000N | UN.30.202.F1 |
| 40 | 223 | 200N - 1000N | UN.40.223.F1 |
| 80 | 332 | 200N - 1000N | UN.80.332.F1 |
| 100 | 382 | 200N - 1000N | UN.100.382.F1 |
| 120 | 432 | 200N - 1000N | UN.120.432.F1 |
| 160 | 527 | 200N - 1000N | UN.160.527.F1 |
| 200 | 627 | 200N - 1000N | UN.200.627.F1 |

Control Units;

Select control unit type




Lever Control

Find more details on page 19 




Wire Control

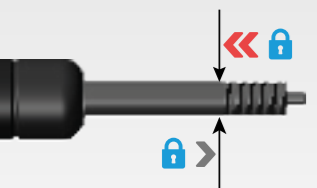
Find more details on page 23 



Hydraulic Control

Find more details on page 25 





REFERENCE NO
VF.20.187.200N
Rigid locking in compression
select from list

Order Example



| S | L | F1 | REF. NO |
|---------------|-----------------|---------------|---------------|
| STROKE LENGTH | EXTENDED LENGTH | PRESSURE RATE | |
| 30 | 174 | 200N - 1000N | VF.30.174.F1 |
| 40 | 194 | 200N - 1000N | VF.40.194.F1 |
| 60 | 247 | 200N - 1000N | VF.60.247.F1 |
| 80 | 292 | 200N - 1000N | VF.80.292.F1 |
| 100 | 352 | 200N - 1000N | VF.100.352.F1 |
| 120 | 402 | 200N - 1000N | VF.120.402.F1 |
| 160 | 492 | 200N - 1000N | VF.160.492.F1 |
| 200 | 582 | 200N - 1000N | VF.200.582.F1 |
| 250 | 592 | 200N - 1000N | VF.250.592.F1 |

Control Units;
Select control unit type



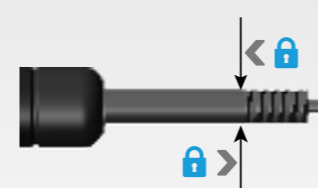
Lever Control
Find more details on page 19



Wire Control
Find more details on page 23

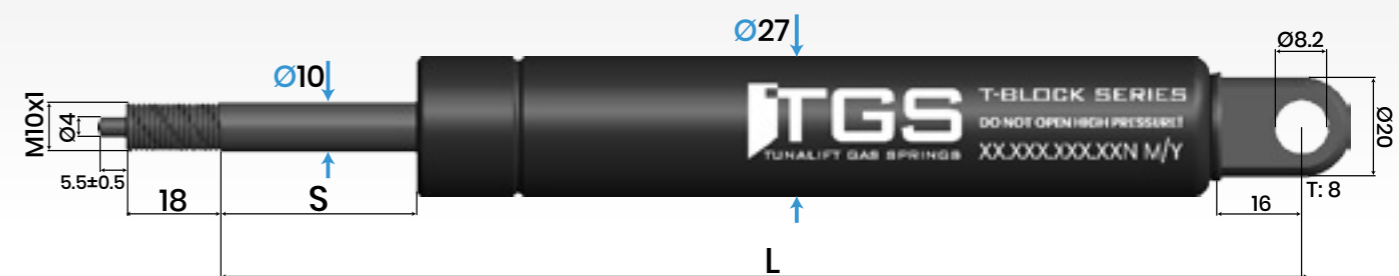


Hydraulic Control
Find more details on page 25



REFERENCE NO
TL.20.187.200N
Elastic locking
select from list

Order Example



| S | L | F1 | REF. NO |
|---------------|-----------------|---------------|---------------|
| STROKE LENGTH | EXTENDED LENGTH | PRESSURE RATE | |
| 20 | 137 | 200N - 1000N | TL.20.137.F1 |
| 30 | 152 | 200N - 1000N | TL.30.152.F1 |
| 40 | 172 | 200N - 1000N | TL.40.172.F1 |
| 60 | 212 | 200N - 1000N | TL.60.212.F1 |
| 80 | 252 | 200N - 1000N | TL.80.252.F1 |
| 100 | 292 | 200N - 1000N | TL.100.292.F1 |
| 120 | 332 | 200N - 1000N | TL.120.332.F1 |
| 160 | 412 | 200N - 1000N | TL.160.412.F1 |
| 200 | 492 | 200N - 1000N | TL.200.492.F1 |
| 250 | 592 | 200N - 1000N | TL.250.592.F1 |

Control Units;
Select control unit type



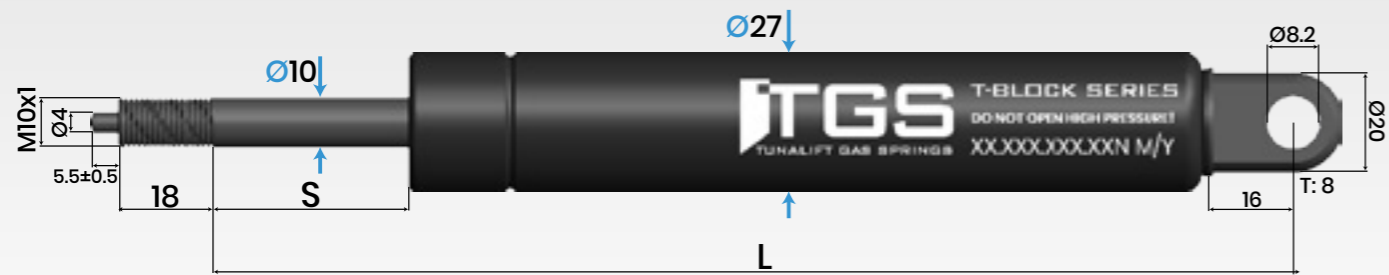
Lever Control
Find more details on page 19



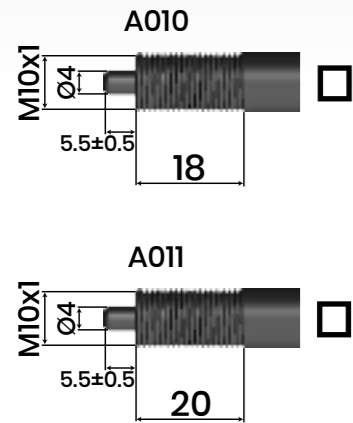
Wire Control
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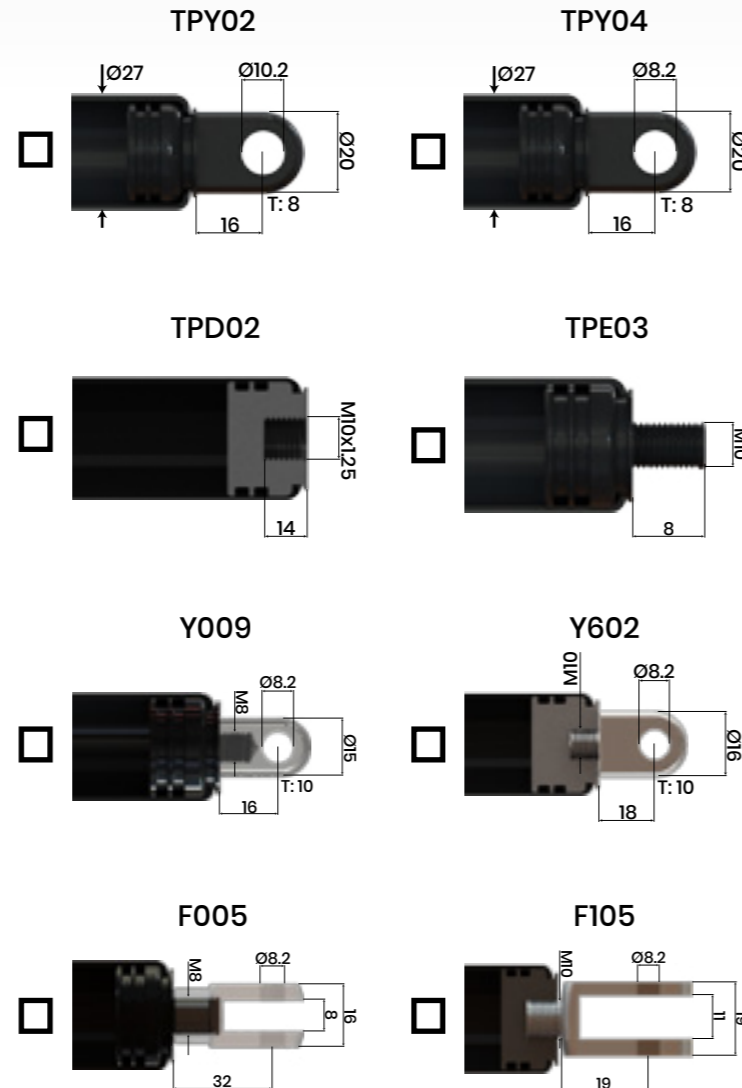
Hydraulic Control
Find more details on page 25



Rod Side Connector



Tube Side Connector



Locking Type

- G27: Rigid locking in extension
- K27: Rigid locking in compression
- E27: Elastic locking

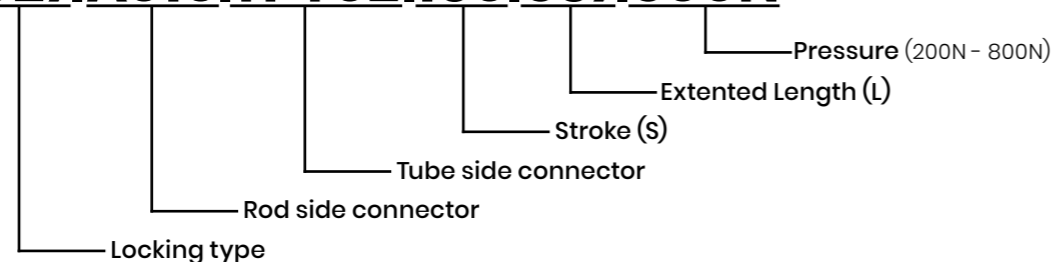
Stroke (S)

- G27 = 20 - 600mm
- K27 = 30 - 300mm
- E27 = 20 - 600mm

Minimum Extended Length (L)

- G27 = (Stroke x 2) + 75mm
- K27 = (Stroke x 2) + 80mm
- E27 = (Stroke x 2) + 68mm

G27.A010.TPY02.160.537.500N



LEVER CONTROL

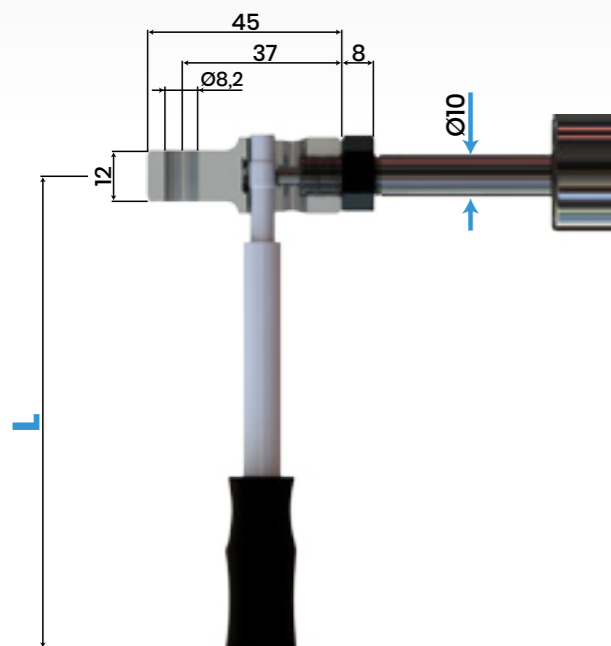


STANDART LEVER CONTROL



KKM1

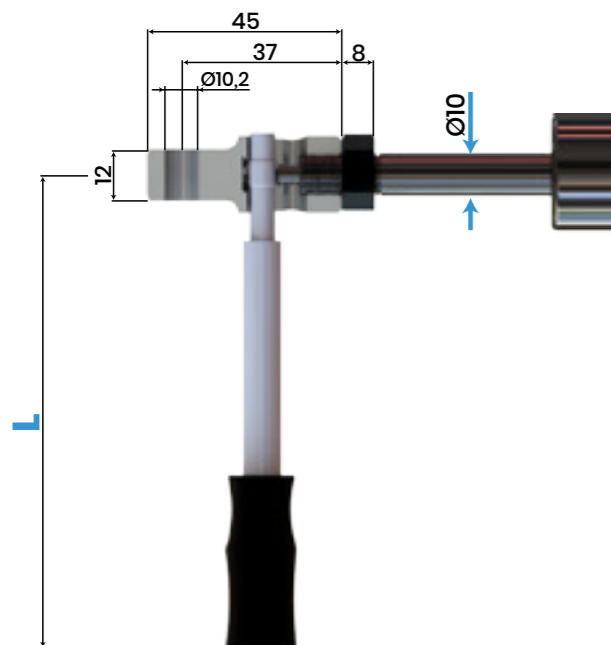
FEATURES



| Material (KB1) | Surface Treatment |
|---------------------|------------------------------|
| Zamac 5 alloy | White zinc plated (Zn/White) |
| Weight (KB1) | Components |
| 0,045 KG | KB1;KK1 |
| Length Alternatives | |
| L = 80 | KKM1-80 |
| L = 120 | KKM1-120 |
| L = 160 | KKM1-160 |
| L = 210 | KKM1-210 |
| L = 250 | KKM1-250 |

KKM2

FEATURES



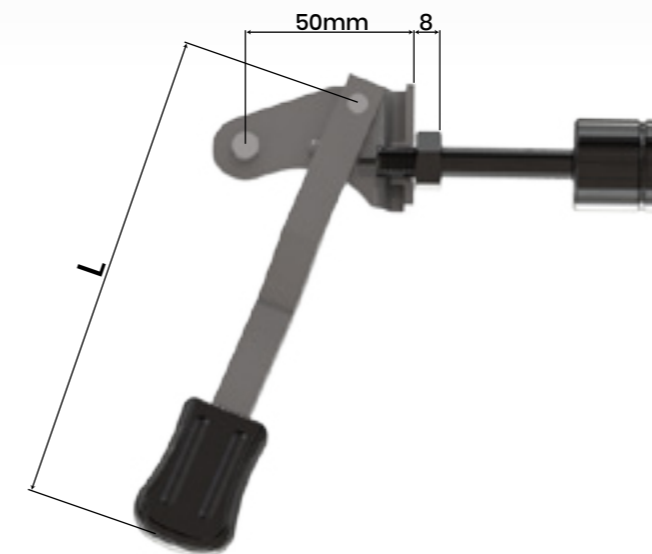
| Material (KB2) | Surface Treatment |
|---------------------|------------------------------|
| Zamac 5 alloy | White zinc plated (Zn/White) |
| Weight (KB2) | Components |
| 0,045 KG | KB2;KK2 |
| Length Alternatives | |
| L = 80 | KKM2-80 |
| L = 120 | KKM2-120 |
| L = 160 | KKM2-160 |
| L = 210 | KKM2-210 |
| L = 250 | KKM2-250 |

LAMA LEVER CONTROL

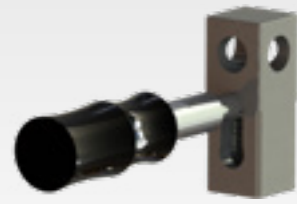


LKM1

FEATURES



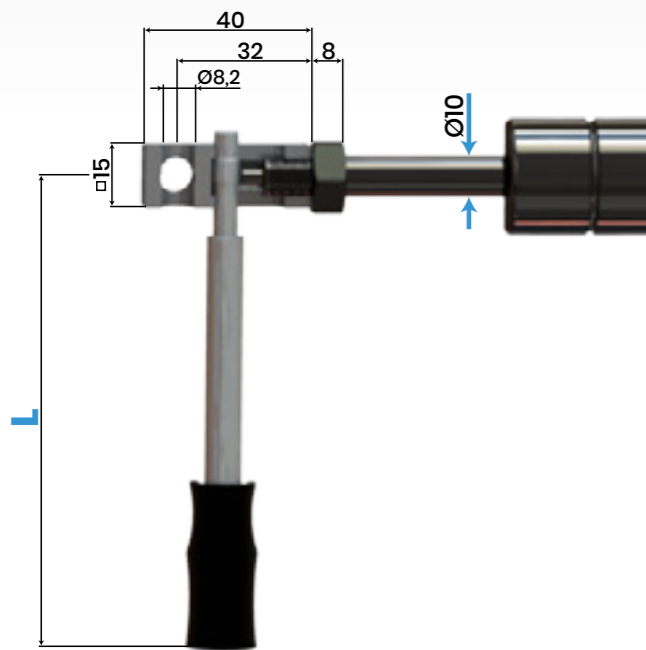
| Material (LB1) | Surface Treatment |
|---------------------|------------------------------|
| ERD 110 | White zinc plated (Zn/White) |
| Weight (LB1) | Components |
| ? KG | LB1;LK1 |
| Length Alternatives | |
| L = 80 | LKM1-80 |
| L = 120 | LKM1-120 |
| L = 160 | LKM1-160 |
| L = 210 | LKM1-210 |
| L = 250 | LKM1-250 |



UNIVERSAL LEVER CONTROL

KKM3

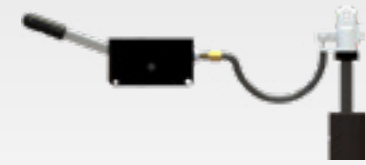
FEATURES



| Material (KB3) | Surface Treatment |
|---------------------|------------------------------|
| Zamac 5 alloy | White zinc plated (Zn/White) |
| Weight (KB3) | Componets |
| 0,013 KG | KB3:KK3 |
| Length Alternatives | |
| L = 80 | KKM3-80 |
| L = 120 | KKM3-120 |
| L = 160 | KKM3-160 |
| L = 210 | KKM3-210 |
| L = 250 | KKM3-250 |

WIRE CONTROL

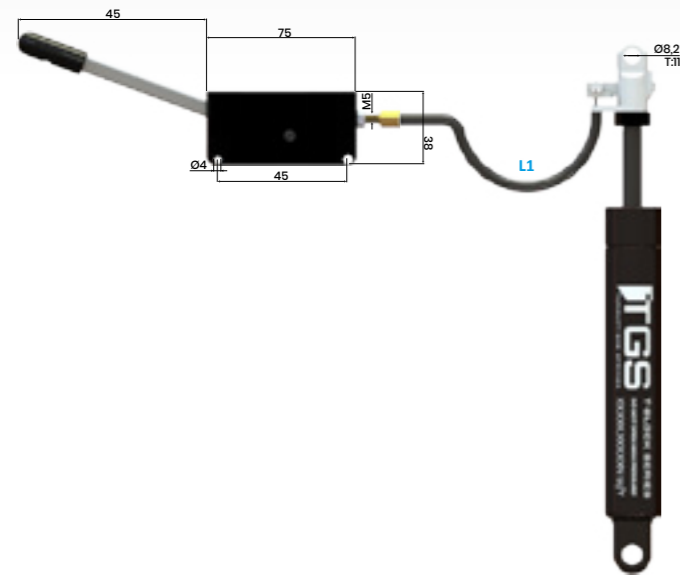




WIRE RELEASE SYSTEM

PR011

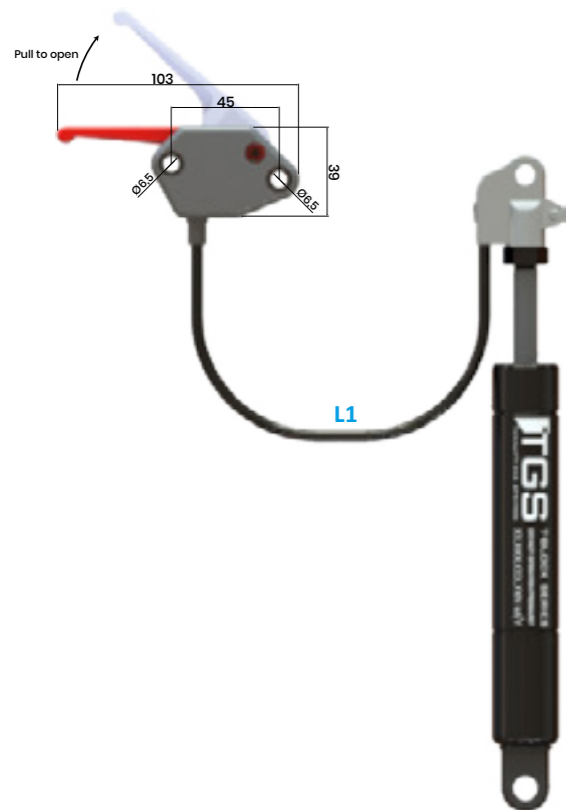
FEATURES



| | | | |
|----------------------|---------|--------------|---------------------|
| Connector | Zamac | Hose | Plastic |
| Box | Plastic | Lever | Steel (Zinc Plated) |
| Order Example | | | |
| L = 400 | | | PR011-400 |
| L = 500 | | | PR011-500 |
| L = 750 | | | PR011-750 |
| L = 900 | | | PR011-900 |

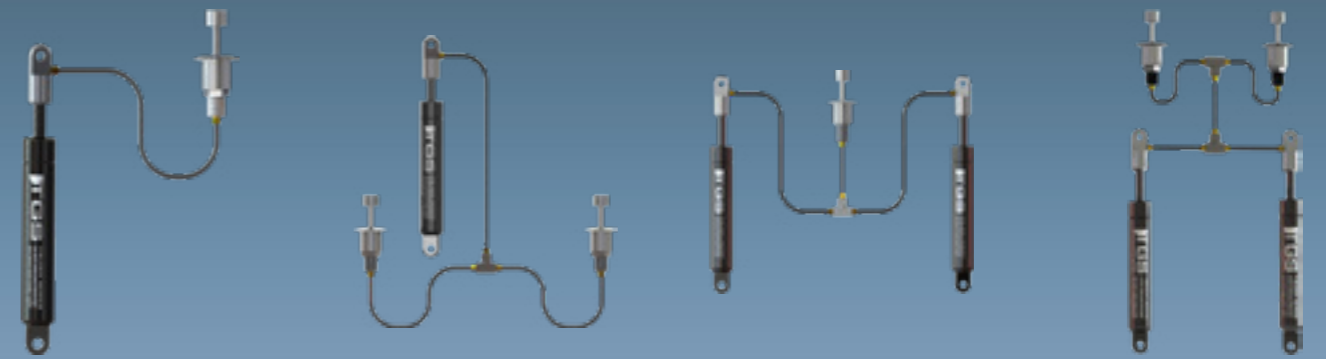
PR012

FEATURES



| | | | |
|----------------------|---------|--------------|-----------|
| Connector | Zamac | Hose | Plastic |
| Box | Plastic | Lever | Plastic |
| Order Example | | | |
| L = 400 | | | PR012-400 |
| L = 500 | | | PR012-500 |
| L = 750 | | | PR012-750 |
| L = 900 | | | PR012-900 |

HYDRAULIC CONTROL

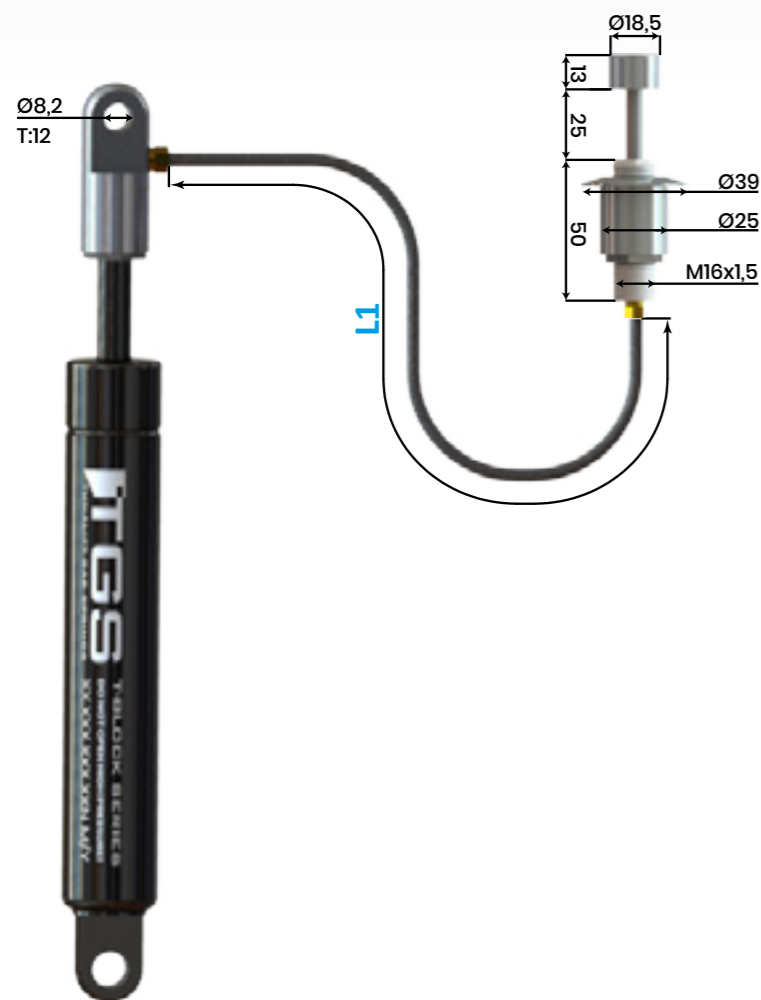




HRS 1B-1H

HRS.1B-1H

FEATURES



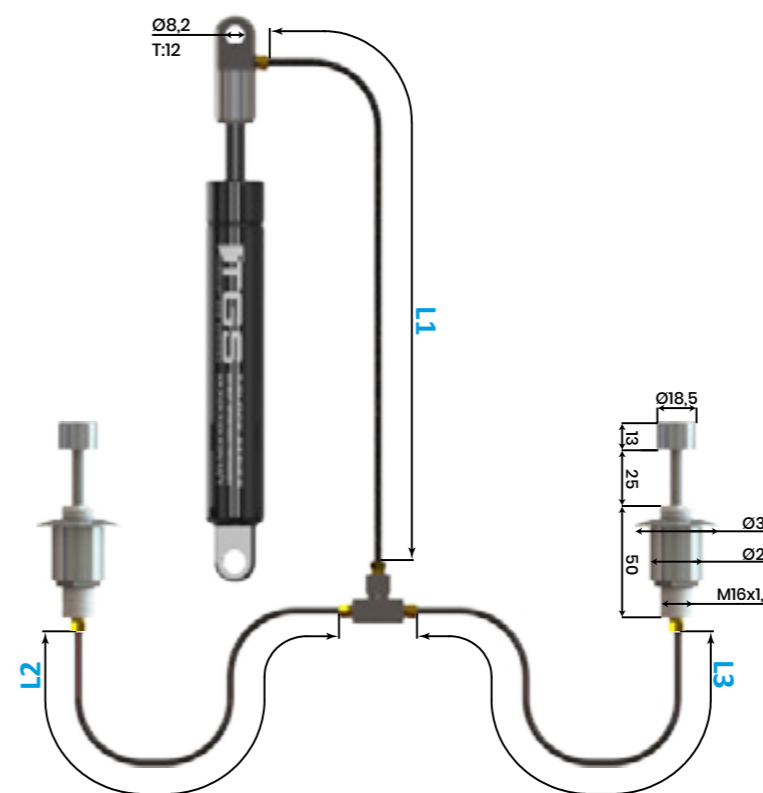
| Connector | Hose |
|-----------------------|---------------------|
| Aluminium | Plastic |
| Button | Piston Rod |
| Aluminium | Steel (Zinc Plated) |
| Order Example | HRS.1B-1H-(L1) |
| L1 = (100mm - 2000mm) | |



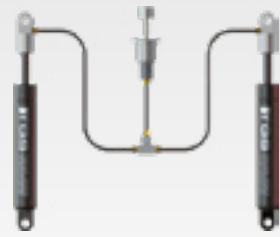
HRS 1B-2H

HRS.1B-2H

FEATURES



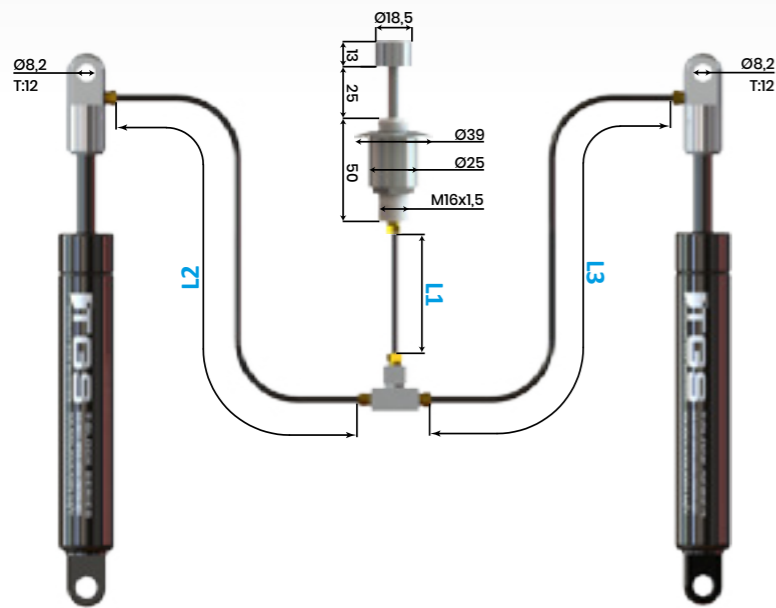
| Connector | Hose |
|-----------------------|----------------------|
| Aluminium | Plastic |
| Button | Piston Rod |
| Aluminium | Steel (Zinc Plated) |
| Order Example | HRS.1B-2H-(L1-L2-L3) |
| L1 = (100mm - 2000mm) | |
| L2 = (100mm - 2000mm) | |
| L3 = (100mm - 2000mm) | |



HRS 2B-1H

HRS.2B-1H

FEATURES



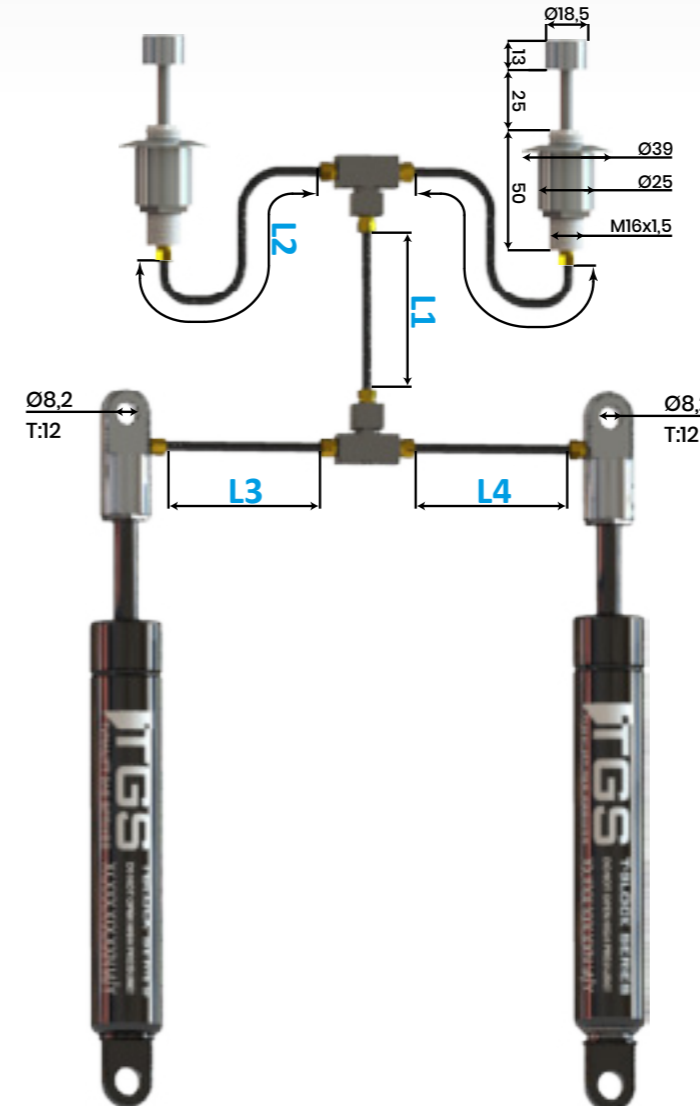
| Connector | Hose |
|-----------------------|----------------------|
| Aluminium | Plastic |
| Button | Piston Rod |
| Aluminium | Steel (Zinc Plated) |
| Order Example | HRS.2B-1H-(L1-L2-L3) |
| L1 = (100mm - 2000mm) | |
| L2 = (100mm - 2000mm) | |
| L3 = (100mm - 2000mm) | |



HRS 2B-2H

HRS.2B-1H

FEATURES

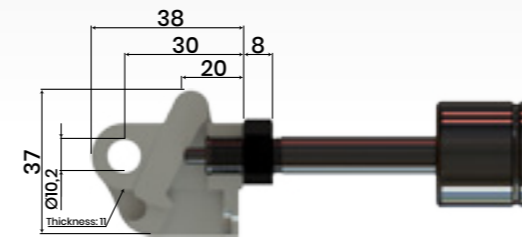


| Connector | Hose |
|-----------------------|-------------------------|
| Aluminium | Plastic |
| Button | Piston Rod |
| Aluminium | Steel (Zinc Plated) |
| Order Example | HRS.2B-2H-(L1-L2-L3-L4) |
| L1 = (100mm - 2000mm) | |
| L2 = (100mm - 2000mm) | |
| L3 = (100mm - 2000mm) | |
| L4 = (100mm - 2000mm) | |

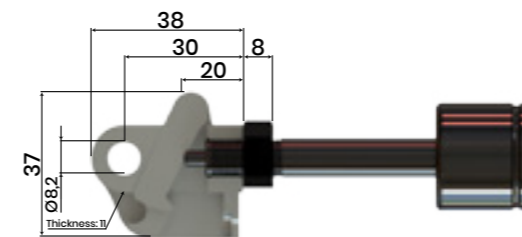
END FITTINGS



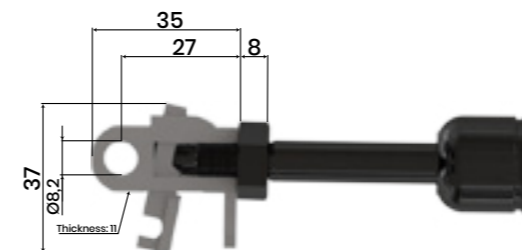
RELEASE HEAD



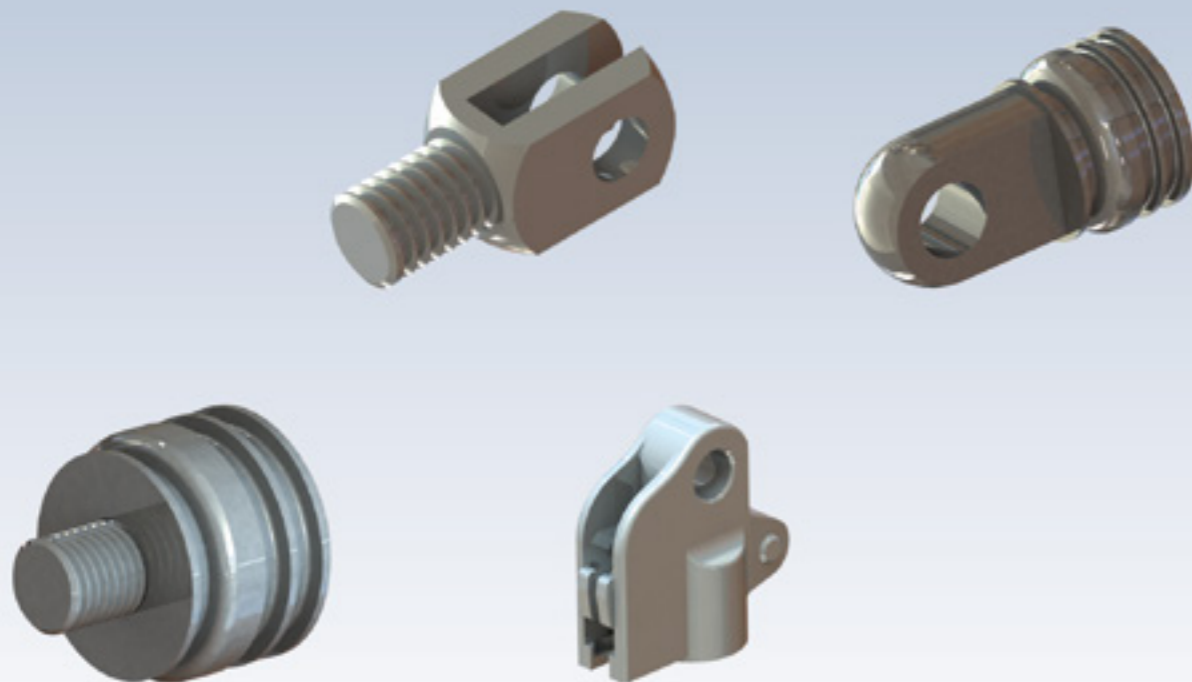
| FEATURES | | K1001 |
|----------------------|--|------------------------------|
| Material Information | | Zamac 5 alloy |
| Surface Treatment | | White zinc plated (Zn/White) |
| Unit Weight | | 0,51 KG |



| FEATURES | | K1002 |
|----------------------|--|------------------------------|
| Material Information | | Zamac 5 alloy |
| Surface Treatment | | White zinc plated (Zn/White) |
| Unit Weight | | 0,51 KG |

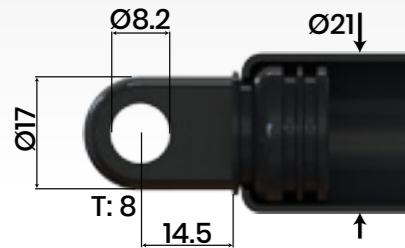


| FEATURES | | F031 |
|----------------------|--|------------------------------|
| Material Information | | Zamac 5 alloy |
| Surface Treatment | | White zinc plated (Zn/White) |
| Unit Weight | | 0,51 KG |



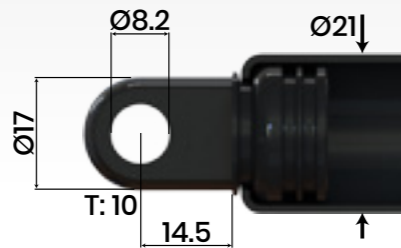


EYE



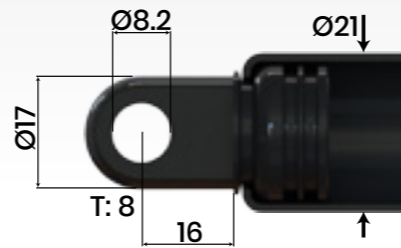
FEATURES TPY01

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |



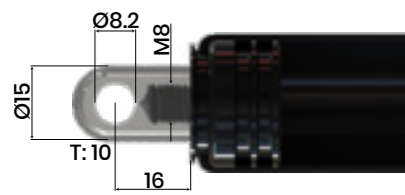
FEATURES TPY03

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |



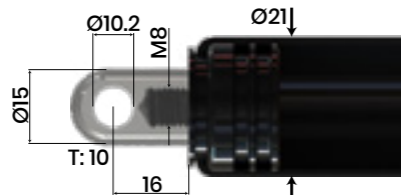
FEATURES TPY05

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |



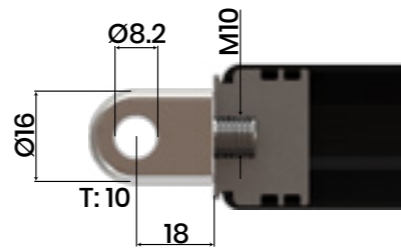
FEATURES Y009

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |



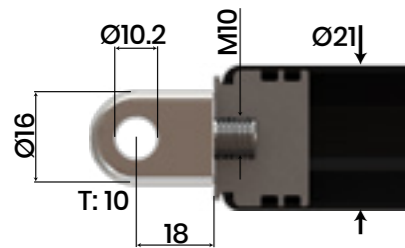
FEATURES Y010

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |



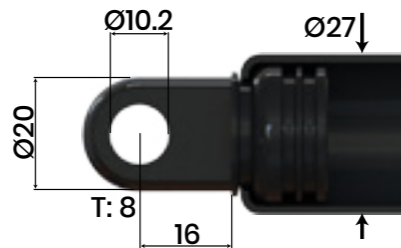
FEATURES Y602

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |



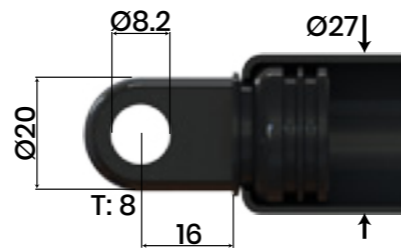
FEATURES Y603

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |



FEATURES TPY02

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |

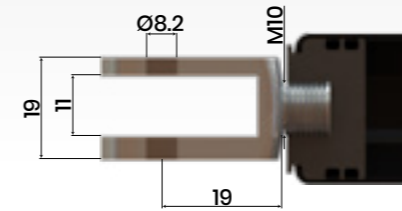


FEATURES TPY04

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |

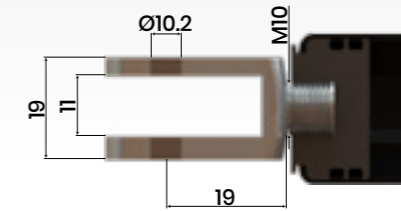


CLEVIS



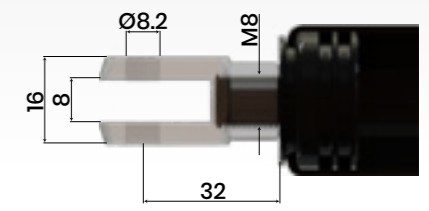
FEATURES F105

| | |
|----------------------|------------------------------|
| Material Information | Steel |
| Surface Treatment | White zinc plated (Zn/White) |
| Unit Weight | - KG |



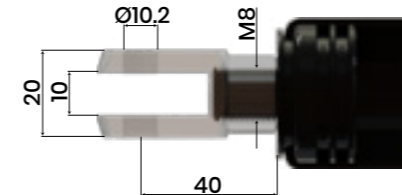
FEATURES F106

| | |
|----------------------|------------------------------|
| Material Information | Steel |
| Surface Treatment | White zinc plated (Zn/White) |
| Unit Weight | - KG |



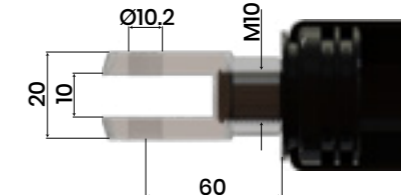
FEATURES F005

| | |
|----------------------|------------------------------|
| Material Information | Steel |
| Surface Treatment | White zinc plated (Zn/White) |
| Unit Weight | - KG |



FEATURES F006

| | |
|----------------------|------------------------------|
| Material Information | Steel |
| Surface Treatment | White zinc plated (Zn/White) |
| Unit Weight | - KG |

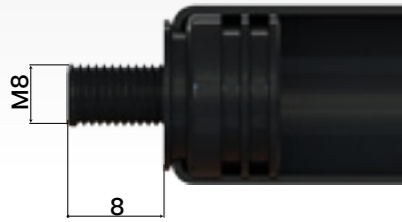


FEATURES F008

| | |
|----------------------|------------------------------|
| Material Information | Steel |
| Surface Treatment | White zinc plated (Zn/White) |
| Unit Weight | - KG |

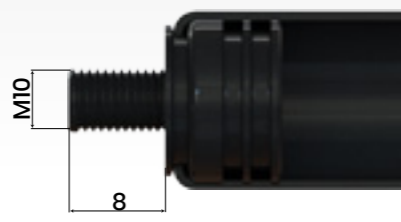


THREAD



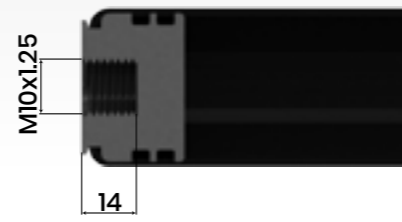
FEATURES **TPE02**

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |



FEATURES **TPE04**

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |



FEATURES **TPD02**

| | |
|----------------------|---------------|
| Material Information | Steel |
| Surface Treatment | Black painted |
| Unit Weight | - KG |



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