



# 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



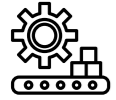
All our products are designed, manufactured and delivered according to the most strict quality standards. Our experienced and specially trained employees monitor the adherence to our quality criteria in every phase of the production process. Tunalift gas springs are manufactured with the highest quality,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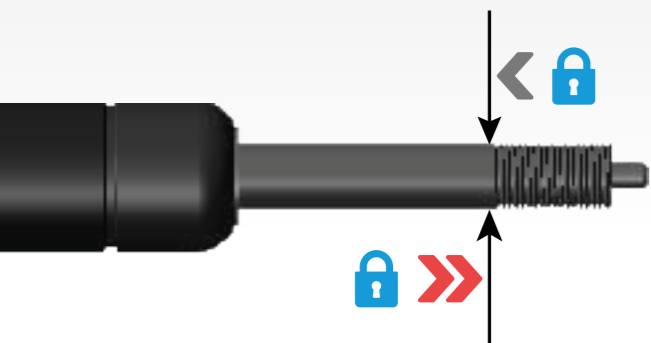


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# T-BLOCK LOCKABLE SERIES



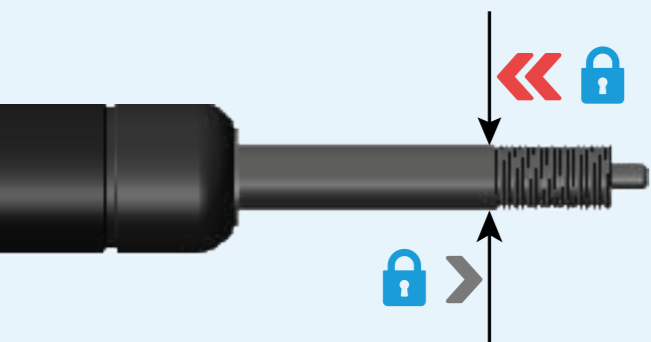
### Rigid locking in extension



10/21  
10/27



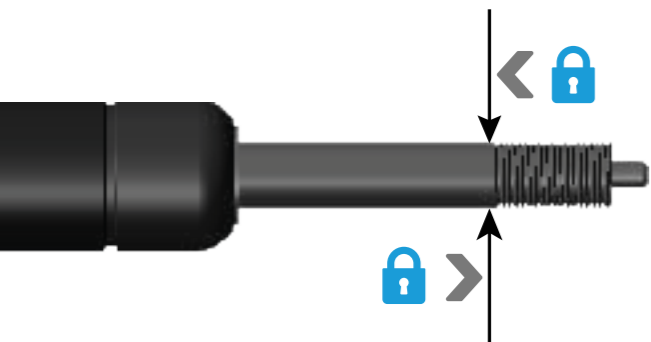
### Rigid locking in compression



10/21  
10/27



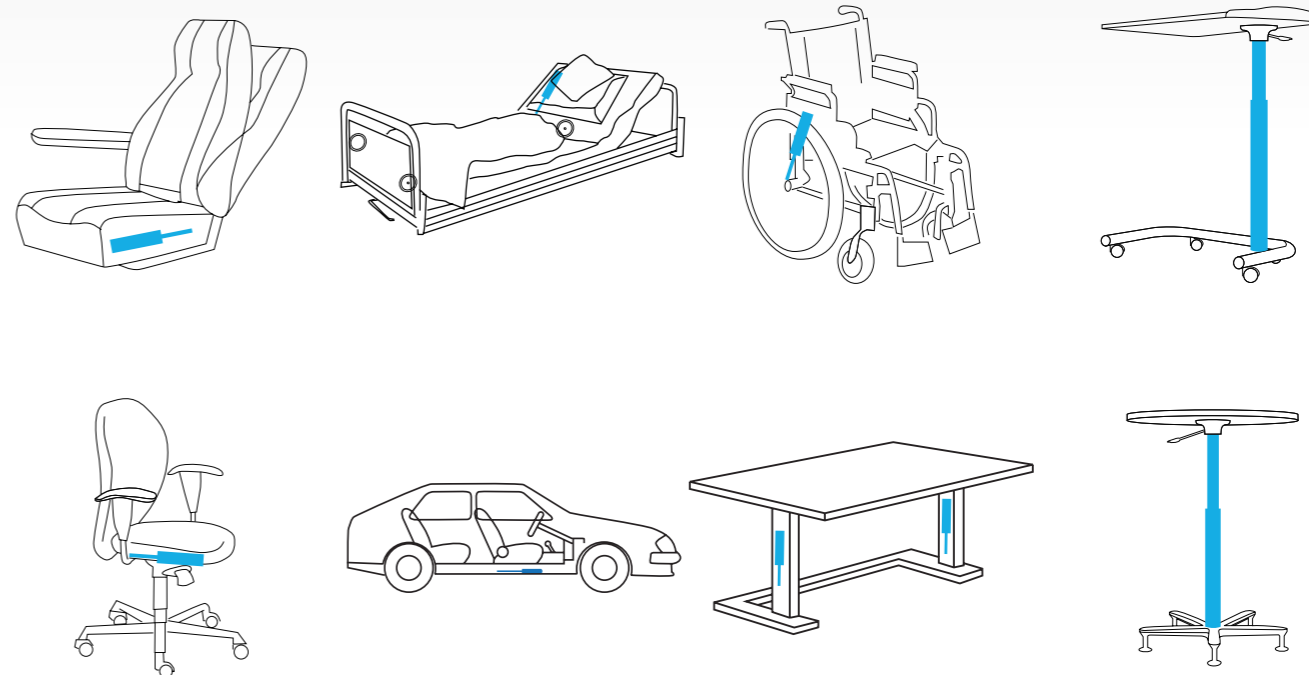
### Elastic locking



10/21  
10/27



# APPLICATION FIELDS OF T-BLOCK GAS SPRINGS

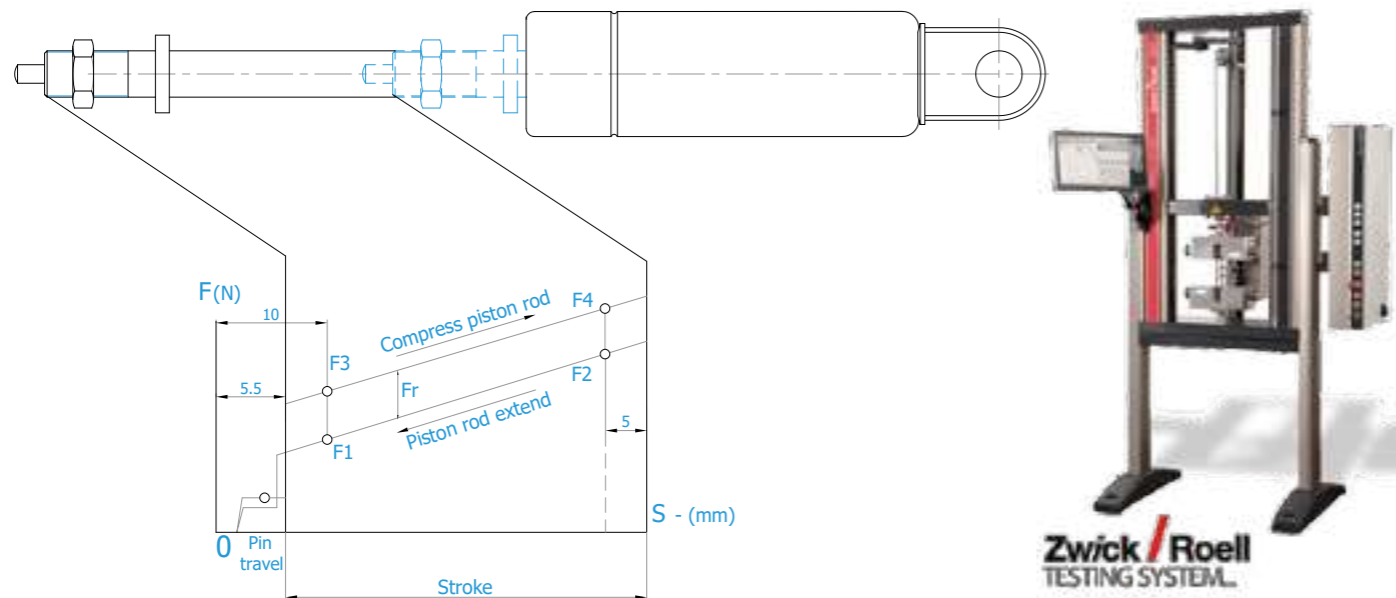


## DEMONSTRATION VIDEO

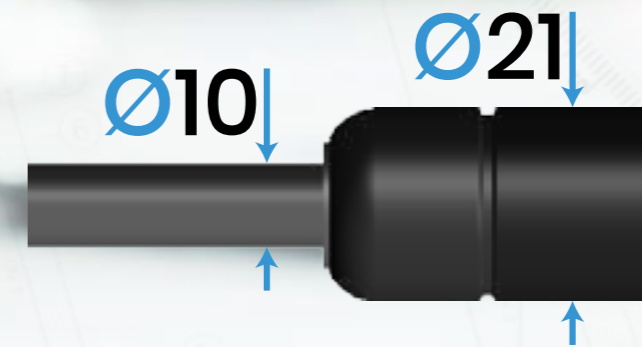


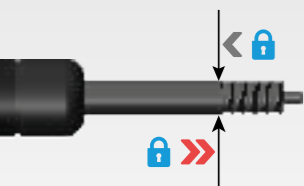
# Spring Characteristics

## 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.





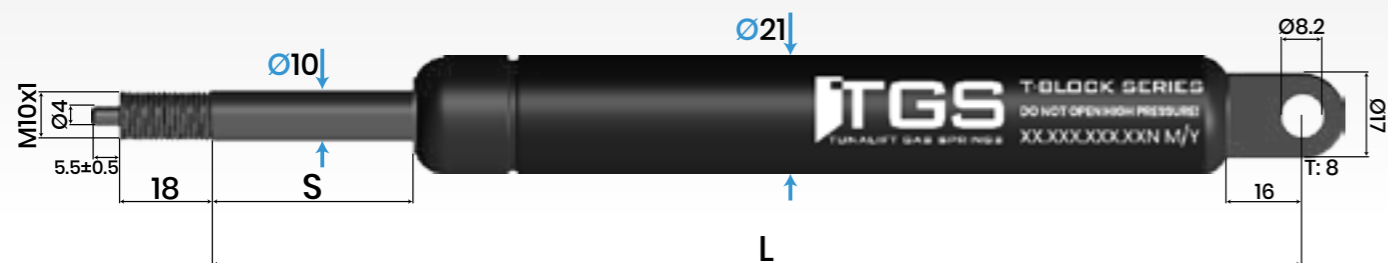
REFERENCE NO

**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



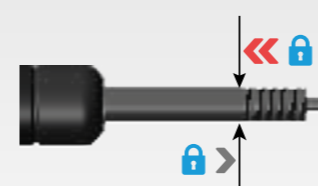
**Wire Control**

Find more details on page 23



**Hydraulic Control**

Find more details on page 25



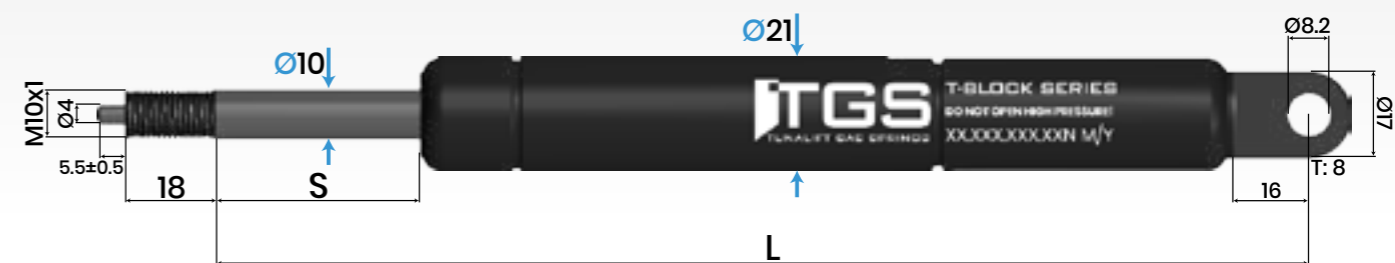
REFERENCE NO

**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



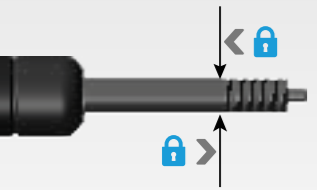
**Wire Control**

Find more details on page 23



**Hydraulic Control**

Find more details on page 25



REFERENCE NO

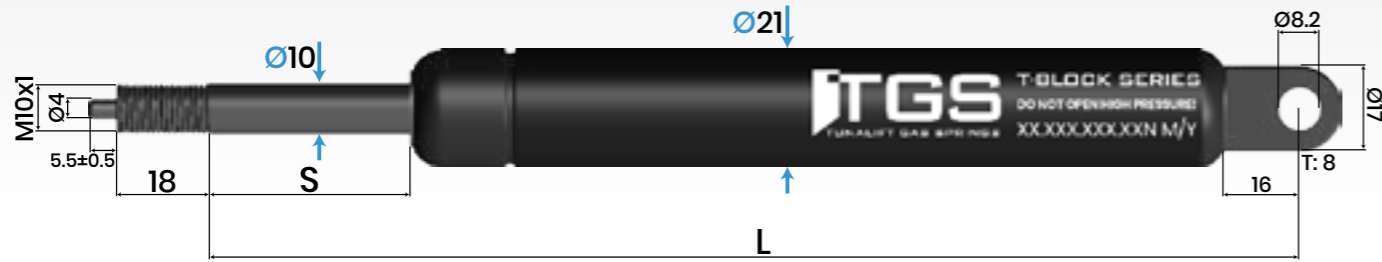
**PJ.20.137.200N**

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**

Find more details on page 19



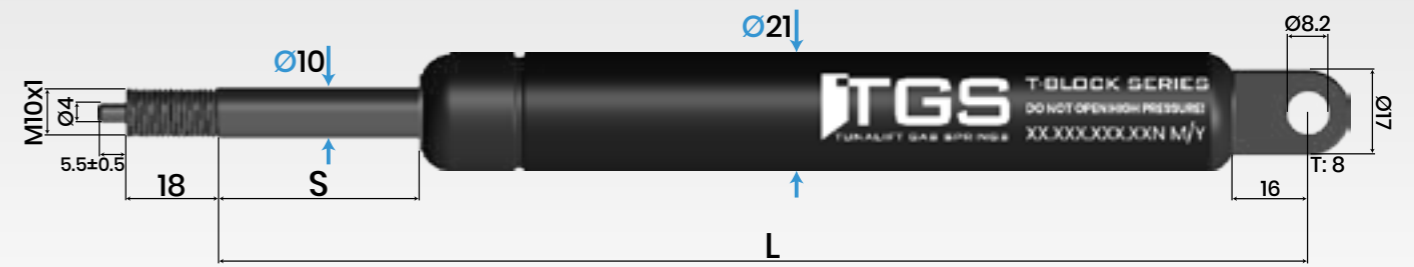
**Wire Control**

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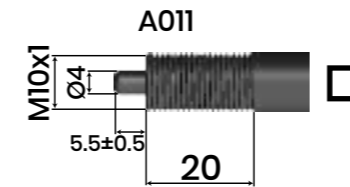
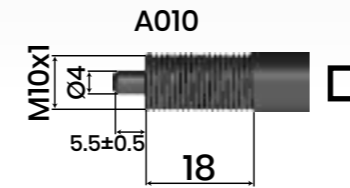


**Hydraulic Control**

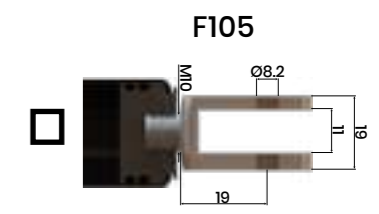
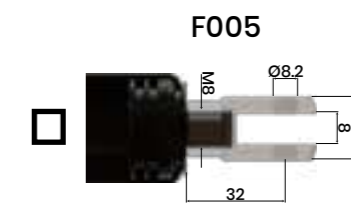
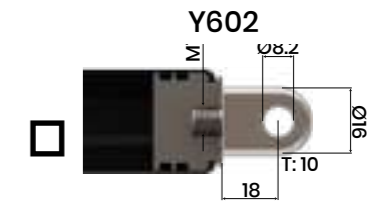
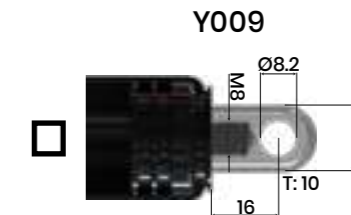
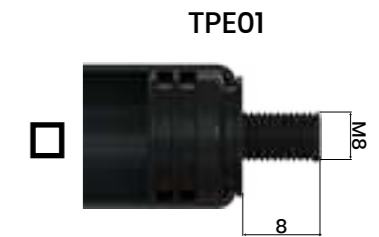
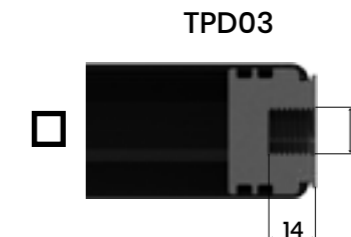
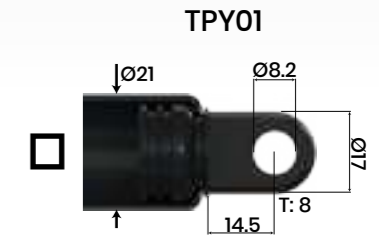
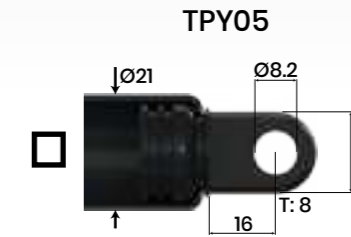
Find more details on page 25



**Rod Side Connector**



**Tube Side Connector**



**Locking Type**

**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

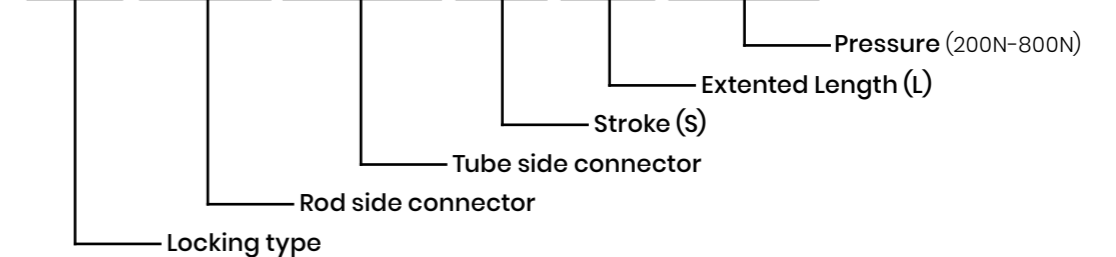
**Minimum Extended Length (L)**

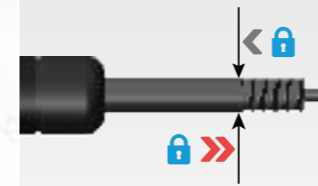
**G21 =** (Stroke x 2) + 75mm

**K21 =** (Stroke x 2) + 80mm

**E21 =** (Stroke x 2) + 68mm

**G21.A010.TPY01.160.537.500N**

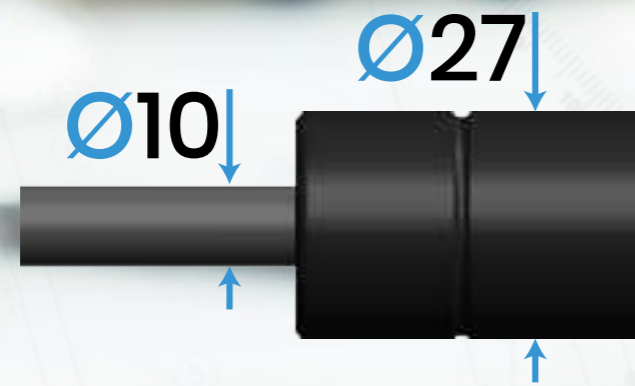




REFERENCE NO

**UN.20.187.200N**

Rigid locking in extension  
select from list



| 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

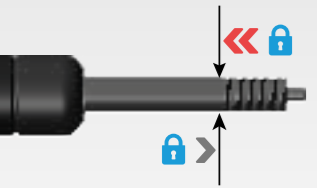


**Hydraulic Control**

Find more details on page 25







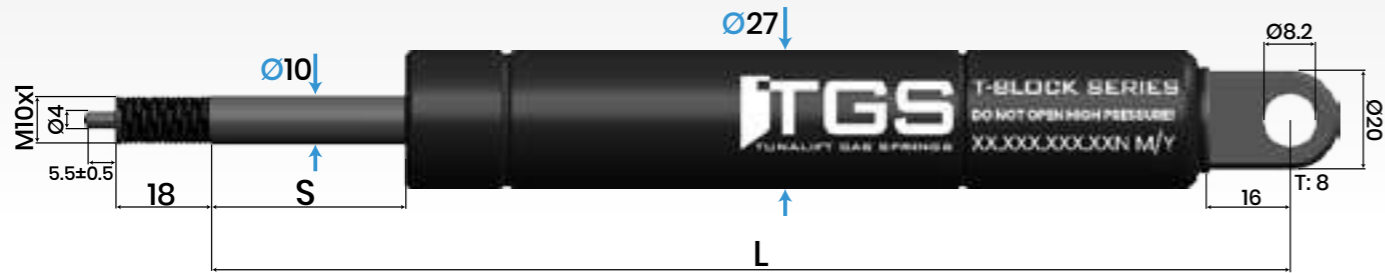
REFERENCE NO

**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



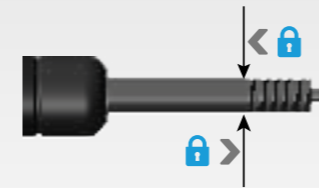
**Wire Control**

Find more details on page 23



**Hydraulic Control**

Find more details on page 25



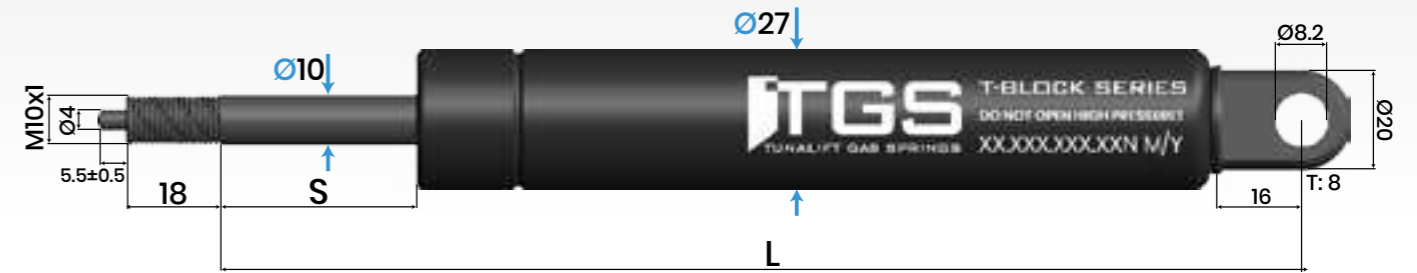
REFERENCE NO

**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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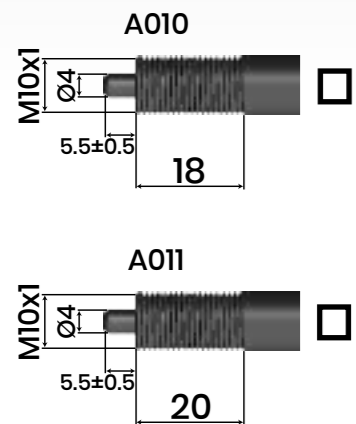


**Hydraulic Control**

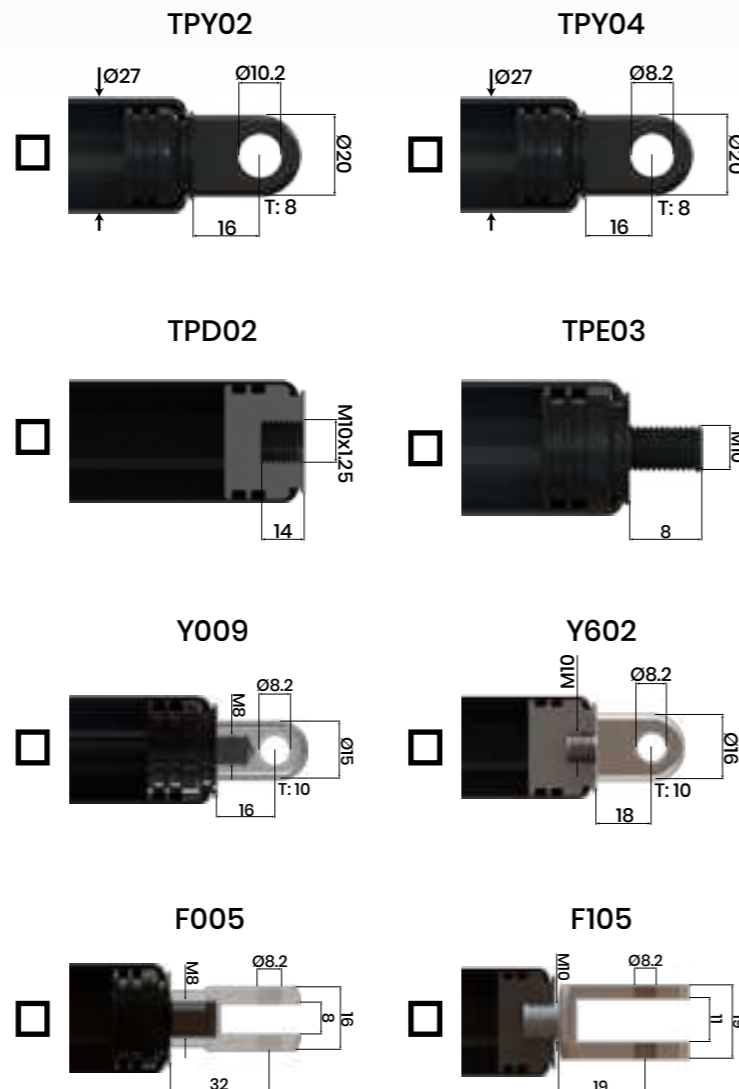
Find more details on page 25



**Rod Side Connector**



**Tube Side Connector**



**Locking Type**

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

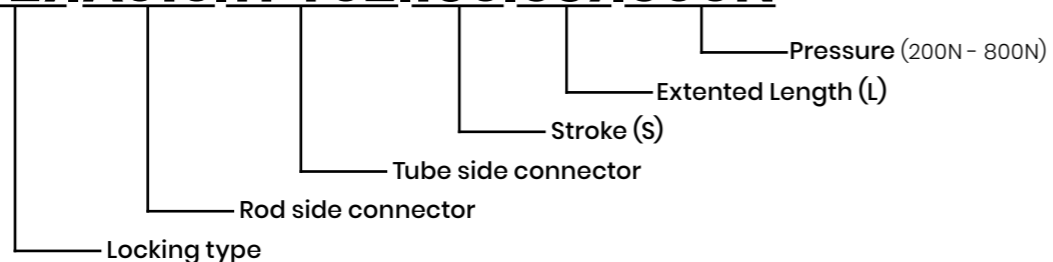
**Stroke (S)**

- 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

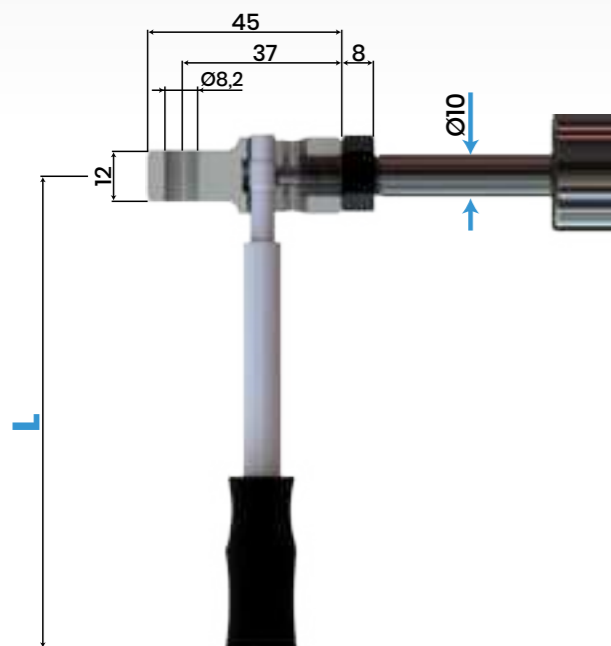


# STANDART LEVER CONTROL



## KKM1

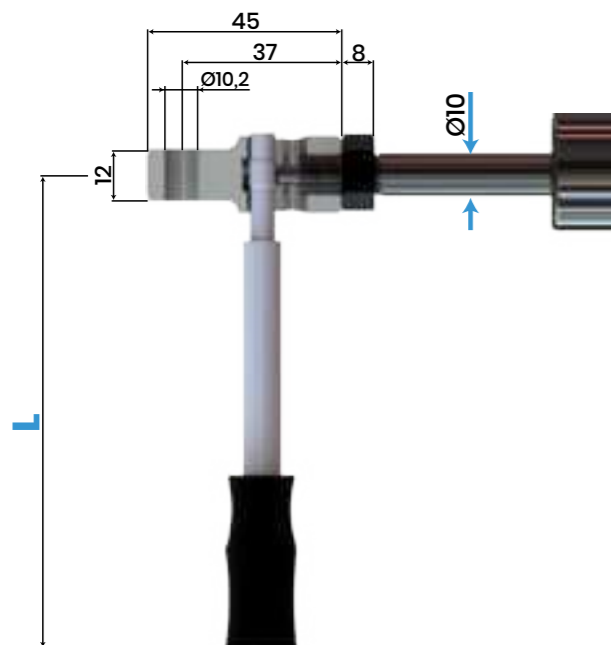
### FEATURES



| 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



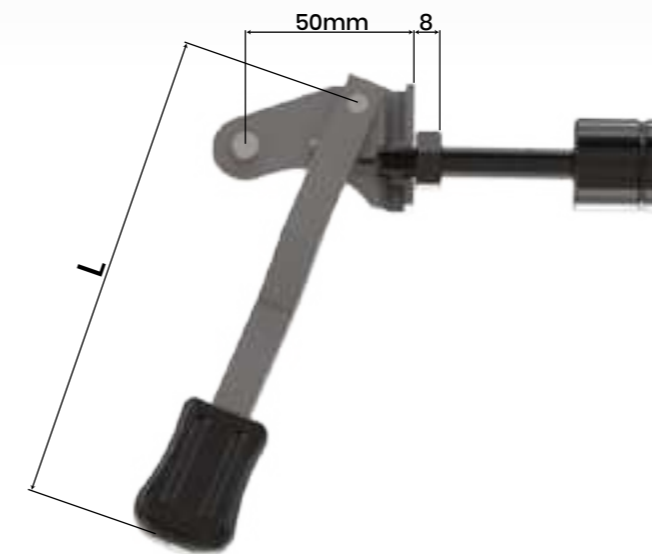
| Material (KB2)      | Surface Treatment            |
|---------------------|------------------------------|
| Zamac 5 alloy       | White zinc plated (Zn/White) |
| Weight (KB2)        | Components                   |
| 0,045 KG            | KB2;KK2                      |
| Length Alternatives |                              |
| 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



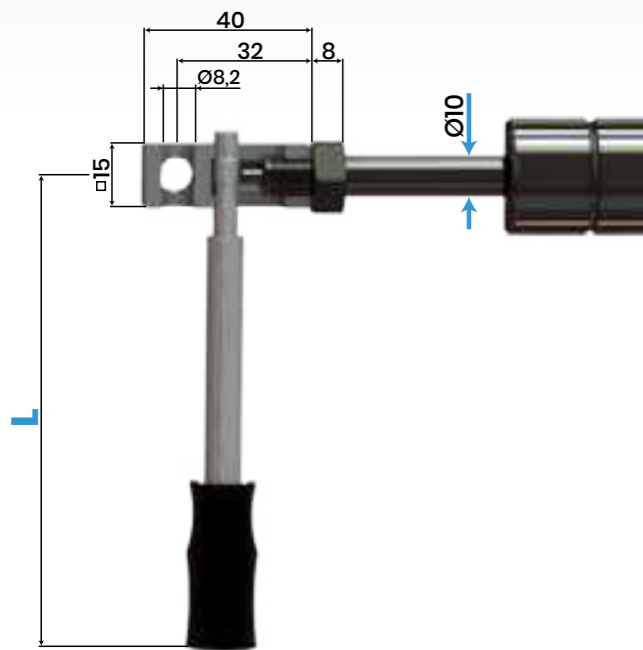
| Material (LB1)      | Surface Treatment            |
|---------------------|------------------------------|
| ERD 110             | White zinc plated (Zn/White) |
| Weight (LB1)        | Components                   |
| ? KG                | LB1;LK1                      |
| Length Alternatives |                              |
| 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)        | Components                   |
| 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

### PR012

### FEATURES



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

# HYDRAULIC CONTROL

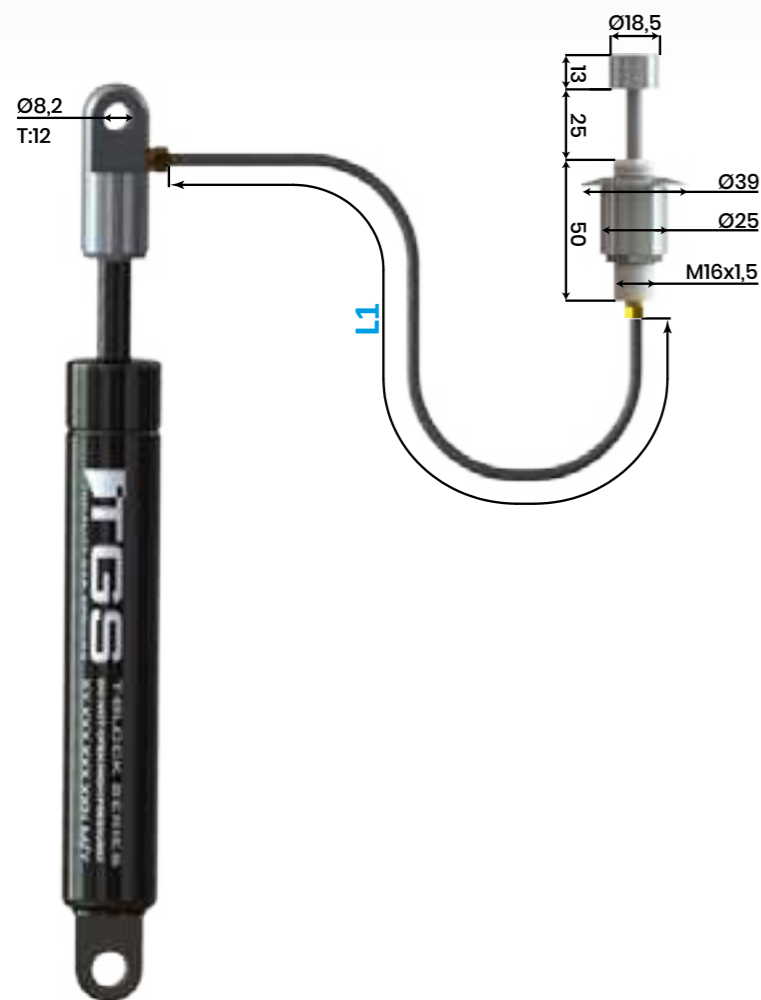




# HRS 1B-1H

## HRS.1B-1H

### FEATURES



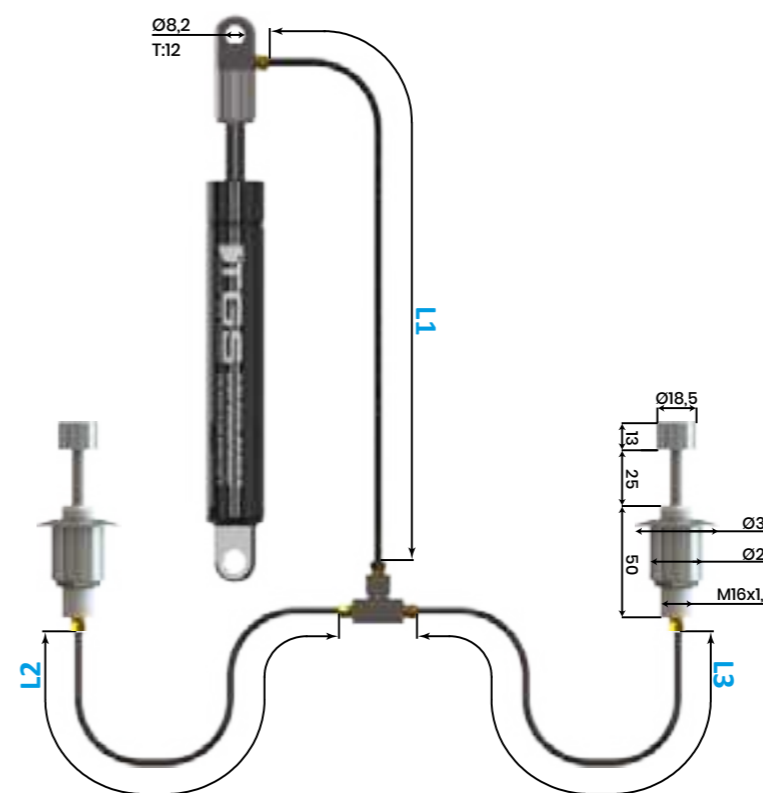
| Connector             | Hose                  |
|-----------------------|-----------------------|
| Aluminium             | Plastic               |
| Button                | Piston Rod            |
| Aluminium             | Steel (Zinc Plated)   |
| <b>Order Example</b>  | <b>HRS.1B-1H-(L1)</b> |
|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



# HRS 1B-2H

## HRS.1B-2H

### FEATURES



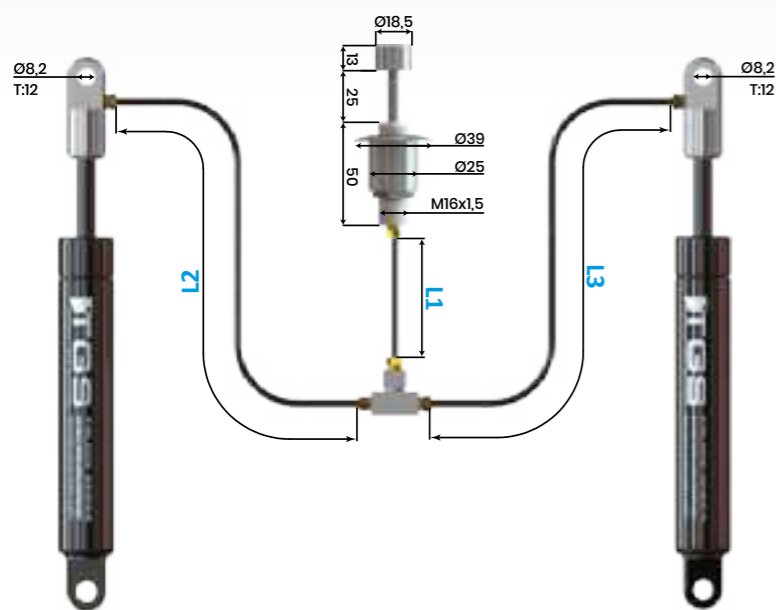
| Connector             | Hose                        |
|-----------------------|-----------------------------|
| Aluminium             | Plastic                     |
| Button                | Piston Rod                  |
| Aluminium             | Steel (Zinc Plated)         |
| <b>Order Example</b>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



# HRS 2B-1H

## HRS.2B-1H

### FEATURES



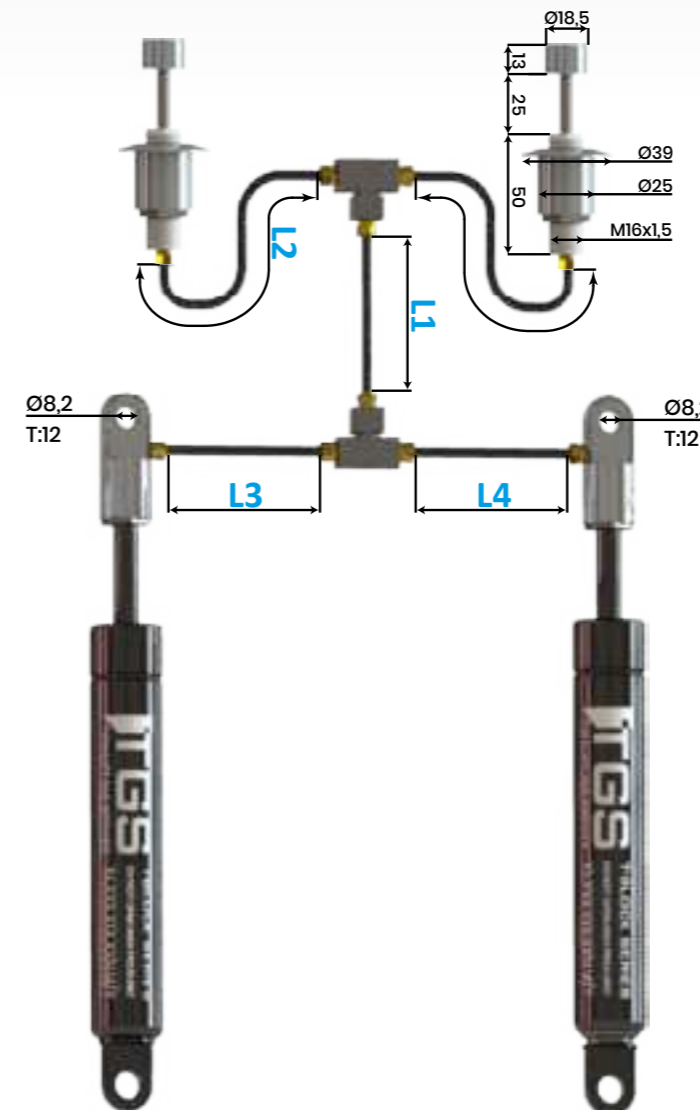
| Connector             | Hose                 |
|-----------------------|----------------------|
| Aluminium             | Plastic              |
| Button                | Piston Rod           |
| Aluminium             | Steel (Zinc Plated)  |
| Order Example         | HRS.2B-1H-(L1-L2-L3) |
| L1 =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



# HRS 2B-2H

## HRS.2B-1H

### FEATURES

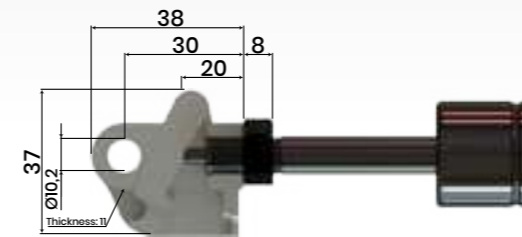


| Connector             | Hose                    |
|-----------------------|-------------------------|
| Aluminium             | Plastic                 |
| Button                | Piston Rod              |
| Aluminium             | Steel (Zinc Plated)     |
| Order Example         | HRS.2B-2H-(L1-L2-L3-L4)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

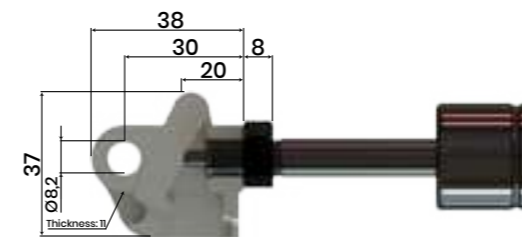
# END FITTINGS



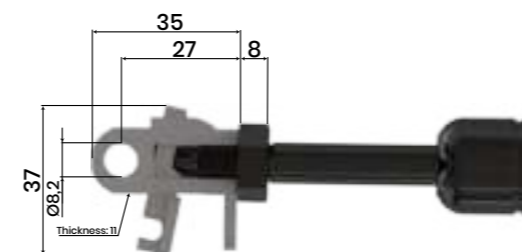
## RELEASE HEAD



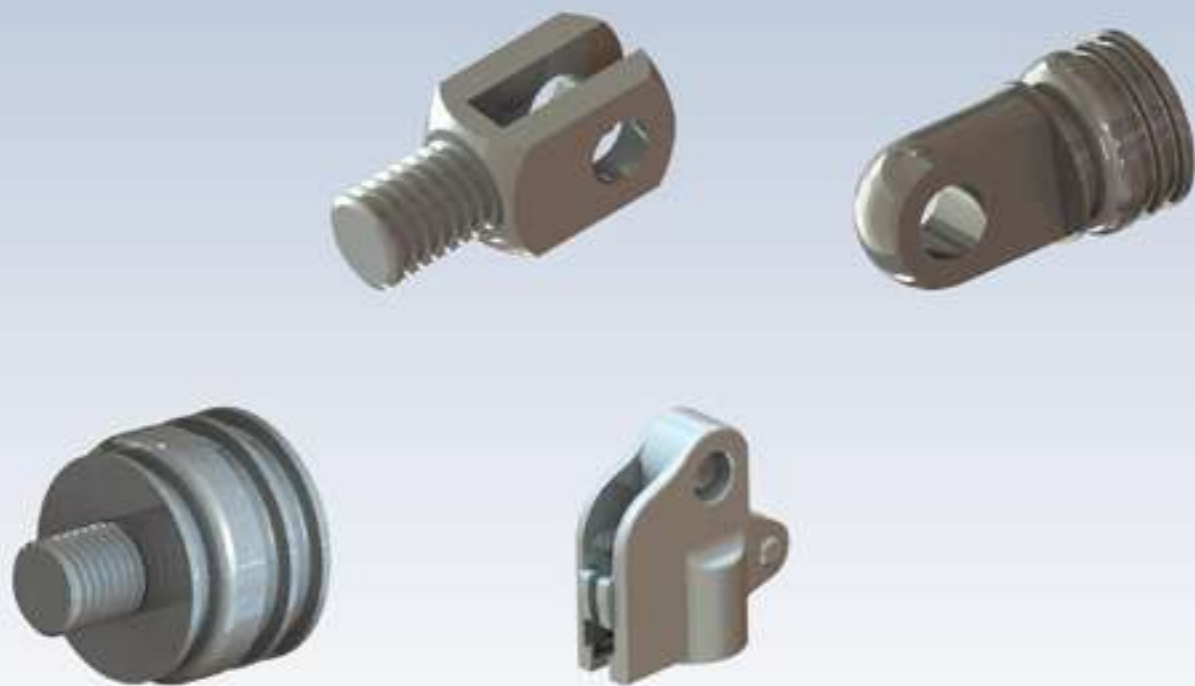
| FEATURES             |  | K1001                        |
|----------------------|--|------------------------------|
| Material Information |  | Zamac 5 alloy                |
| Surface Treatment    |  | White zinc plated (Zn/White) |
| Unit Weight          |  | 0,51 KG                      |



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



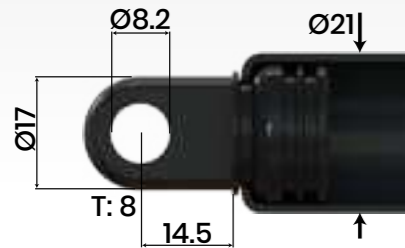
| FEATURES             |  | F031                         |
|----------------------|--|------------------------------|
| Material Information |  | Zamac 5 alloy                |
| Surface Treatment    |  | White zinc plated (Zn/White) |
| Unit Weight          |  | 0,51 KG                      |





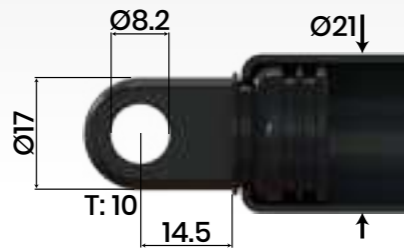


# EYE



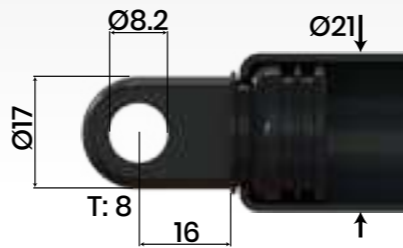
## FEATURES TPY01

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



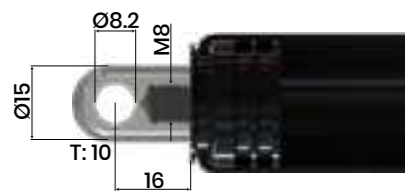
## FEATURES TPY03

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



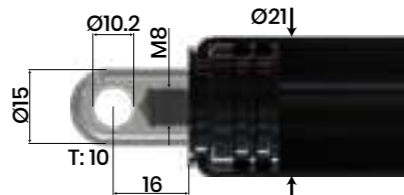
## FEATURES TPY05

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



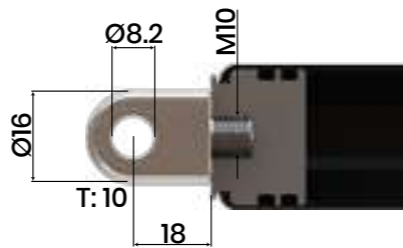
## FEATURES Y009

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



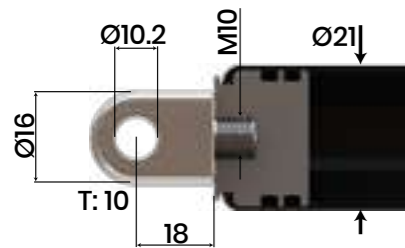
## FEATURES Y010

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



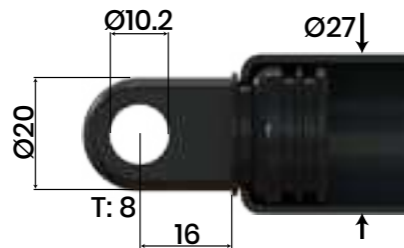
## FEATURES Y602

|                      |               |
|----------------------|---------------|
| 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          |

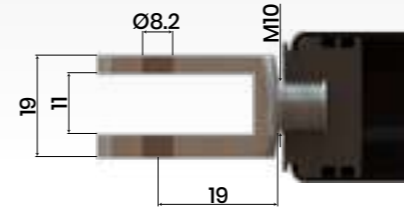


## FEATURES TPY04

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

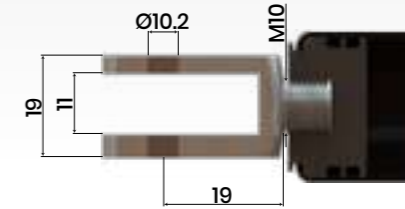


# CLEVIS



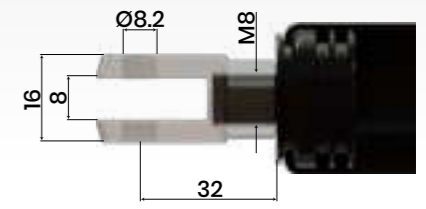
## FEATURES F105

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



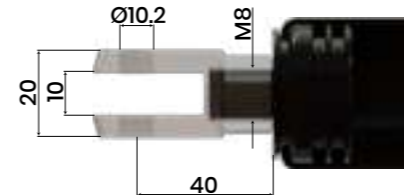
## FEATURES F106

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



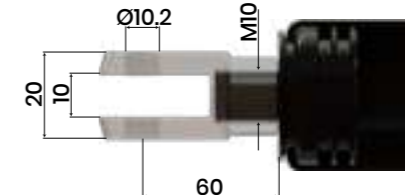
## FEATURES F005

|                      |                              |
|----------------------|------------------------------|
| 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                         |

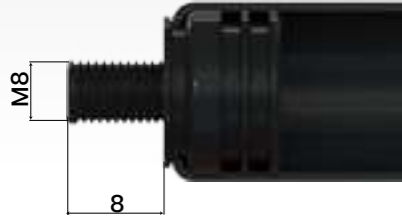


## FEATURES F008

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



# THREAD



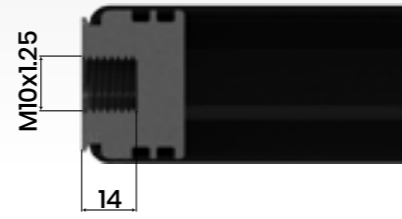
## FEATURES TPE02

|                      |               |
|----------------------|---------------|
| 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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