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## 1 Pneumatic telescoping units

### 1.1 Pneumatic telescoping cylinders

#### 1.1.1 Telescoping cylinder Series 80 2-stage

##### Technical features

Function	Double-acting, variable velocity in both directions due to controlled expelled air.	Stroke length	Freely selectable stroke lengths, max. 1000 mm
Design	2-stage	PistonsØ	20/32, 25/40, 30/50, 40/63, 50/80, 60/100 mm
We keep sets of seals for you in store.		Connections	20/32= G1/8", 25/40= G1/8", 30/50= G1/4", 40/63= G1/4", 50/80= G1/4", 63/100= G1/4"
Seals	Perbunan	Any fitting position	
Materials	Piston rod: stainless steel; telescoping tube: steel, chemically nickel-plated; cylinder: hard anodized aluminium; front and end pieces: aluminium	Temperature	-20°C to +80°C
Damper	None	Medium	Filtered, oil-bearing or oil-free compressed air
		Operating pressure	1 to 10 bar

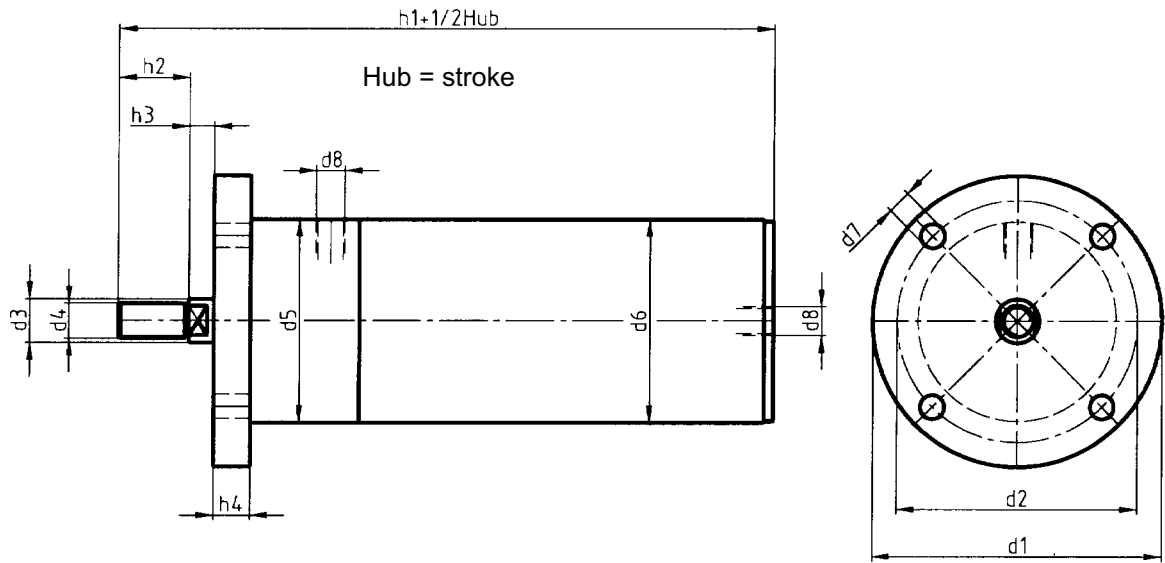
##### Customized solutions on request

<b>Ordering example</b> 		<p>You can choose a <b>customized solution from any of the rogatti-BEWEGUNGSTECHNIK standard series</b> for no additional price: longer piston rod, different thread on piston rod, intermediate strokes, offset connections, smaller/larger connection thread.</p> <p>We can design, construct and manufacture <b>customized solutions and assemblies</b> to your specifications. You will find our form for customized solutions at the end of this catalogue. It will help you with your inquiry.</p>
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##### Ordering example:

For a piston diameter of 30/50 mm and a stroke of 250 mm the Order No. is 1 - 80 030 57 0250 - 0

1.1.1.1 Attachment 57 Front flange



PistonØ	Compressive force at 6 bar in N	Tensile force at 6 bar in N	d <sub>1</sub> Ø	d <sub>2</sub> Ø	d <sub>3</sub> Ø	d <sub>4</sub>	d <sub>5</sub> Ø	d <sub>6</sub> Ø	d <sub>7</sub> Ø	d <sub>8</sub>	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>
20/32	165	125	70	56	10	M8	42	38	7	G1/8	119	16	7	12
25/40	260	200	75	60	12	M10	45	45	9	G1/8	138	20	7	12
30/50	370	270	85	70	16	M12	55	55	9	G1/4	142	24	7	12
40/63	660	500	110	85	20	M16x1.5	68	68	9	G1/4	180	32	10	12
50/80	1040	870	130	110	20	M16x1.5	86	86	11	G1/4	180	32	10	20
63/100	1650	1400	160	135	25	M20x1.5	106	106	13	G1/4	220	40	10	20

1.1.2 Telescoping cylinder Series 81 2-stage, low cost

**Technical features**

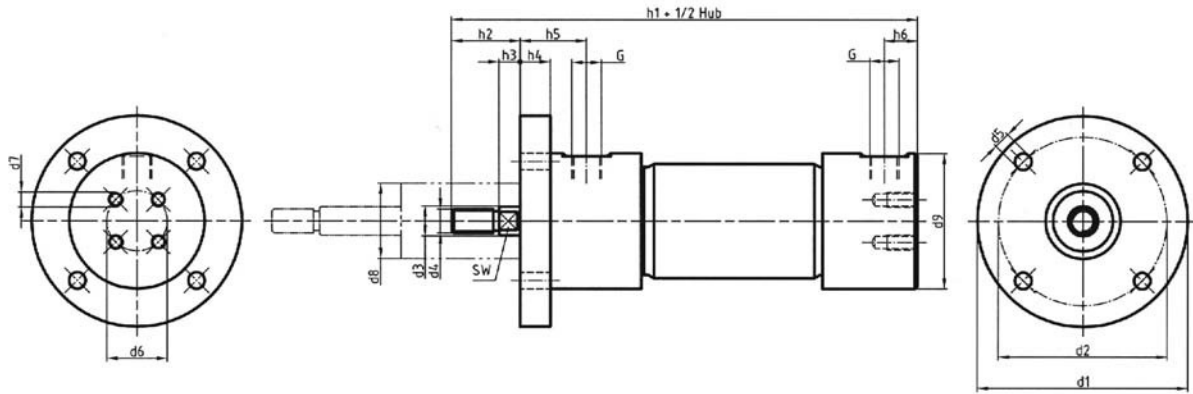
Function	Double-acting, variable velocity in both directions due to controlled expelled air.	Stroke length	Freely selectable stroke lengths, max. 1000 mm
Design	2-stage	Pistons Ø	20/32, 25/40, 30/50, 40/63, 50/80, 63/100 mm
We keep sets of seals for you in store.		Connections	20/32= G1/8", 25/40= G1/8", 30/50= G1/4", 40/63= G1/4", 50/80= G1/4", 63/100= G1/4"
Seals	Perbunan	Any fitting position	
Materials	Piston rod: stainless steel; telescoping tube: aluminium, hard anodized; cylinder: aluminium, hard anodized front and end pieces: aluminium, anodized	Temperature	-20°C to +80°C
		Medium	Filtered, oil-bearing or oil-free compressed air
Damper	Elastomer	Operating pressure	1 to 10 bar

**Customized solutions on request**

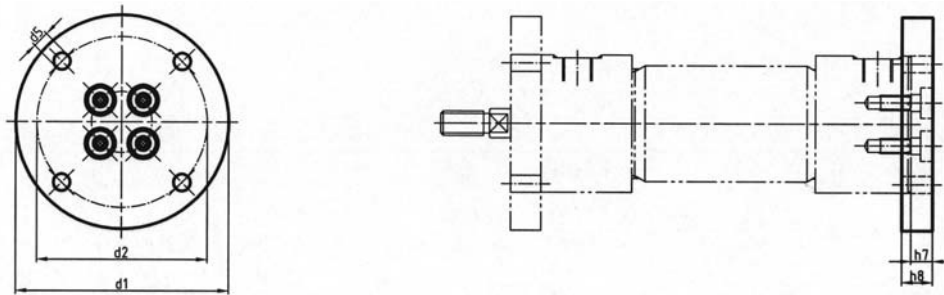
<b>Ordering example</b>		<p>You can choose a <b>customized solution from any of the rogatti-BEWEGUNGSTECHNIK standard series</b> for no additional price: longer piston rod, different thread on piston rod, intermediate strokes, offset connections, smaller/larger connection thread.</p> <p>We can design, construct and manufacture <b>customized solutions and assemblies</b> to your specifications. You will find our form for customized solutions at the end of this catalogue. It will help you with your inquiry.</p>
Pneumatische Zylinder Pneumatic cylinder Baureihe Series Kolbendurchm Piston dia. Attachment type Hub in mm Stroke in mm	1 - 40 050 51 0250 - 0	

**Ordering example:**  
 For a piston diameter of 30/50 mm and a stroke of 250 mm the  
 Order No. is 1 - 81 030 57 0250 - 0

1.1.2.1 Attachment 57 Front flange



1.1.2.2 Attachment 56 Rear flange



Piston $\varnothing$	Compressive force at 6 bar in N	Tensile force at 6 bar in N	$d_1$ $\varnothing$	$d_2$ $\varnothing$	$d_3$ $\varnothing$	$d_4$	$d_5$ $\varnothing$	$d_6$ $\varnothing$	$d_7$ $\varnothing$	$d_8$	$d_9$	WF	G	$h_1$	$h_2$	$h_3$	$h_4$	$h_5$	$h_6$	$h_7$	$h_8$
20/32	165	125	70	56	10	M8	5.5	20	M5	25	45	8	G1/8	107	23	7	10	22	11	7	10
25/40	260	200	75	63	12	M10	6.6	20	M6	30	50	10	G1/8	121.5	27	7	12	34	11	9	12
30/50	370	270	85	73	16	M12	6.6	25	M6	35	60	13	G1/4	139	31	7	12	36	14	8	12
40/63	660	500	110	87	20	M16x1.5	6.6	25	M6	45	74	17	G1/4	170	41	9	12	46	14	8	12
50/80	1040	870	130	107	20	M16x1.5	9	35	M8	55	91	17	G1/4	180.5	41	9	12	51	15	10	14
63/100	1650	1400	160	135	25	M20x1.5	11	28	M10	68	110	21	G1/4	203	50	10	20	60	14	16	20

### 1.1.3 Telescoping cylinder Series 86 3-stage

#### Technical features

Function	Double-acting
Design	3-stage
We keep sets of seals for you in store.	
Seals	Perbunan
Materials	Piston rod: stainless steel; telescoping tube: aluminium, hard anodized; cylinder: aluminium, hard anodized front and end pieces: aluminium, anodized
Damper	Elastomer
Stroke length	Freely selectable stroke lengths, max. 1000 mm

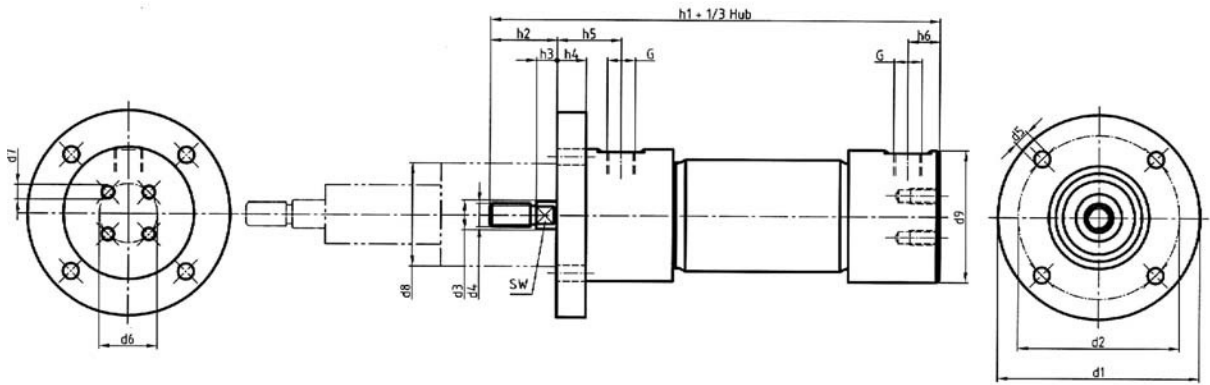
Pistons Ø	12/25/40, 16/30/50, 25/40/63, 30/50/80, 40/63/100 mm
Connections	12/25/40= G1/8", 16/30/50= G1/4", 25/40/63= G1/4", 30/50/80= G1/4", 40/63/100 = G1/4"
Any fitting position	
Temperature	-20°C to +80°C
Medium	Filtered, oil-bearing or oil-free compressed air
Operating pressure	1 to 10 bar
<b>Customized solutions on request</b>	

<b>Ordering example</b>		<p>You can choose a <b>customized solution from any of the rogatti-BEWEGUNGSTECHNIK standard series</b> for no additional price: longer piston rod, different thread on piston rod, intermediate strokes, offset connections, smaller/larger connection thread.</p> <p>We can design, construct and manufacture <b>customized solutions and assemblies</b> to your specifications. You will find our form for customized solutions at the end of this catalogue. It will help you with your inquiry.</p>
Pneumatic cylinder Baureihe Series Kolbendurchm Piston dia. Attachment type Hub in mm Stroke in mm		

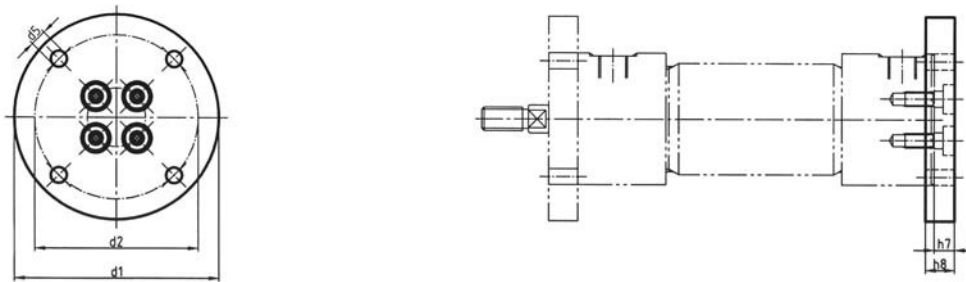
#### Ordering example:

For a piston diameter of 12/25/40 mm and a stroke of 250 mm the  
Order No. is 1 - 86 012 57 0250 - 0

1.1.3.1 Attachment 57 Front flange



1.1.3.2 Attachment 56 Rear flange



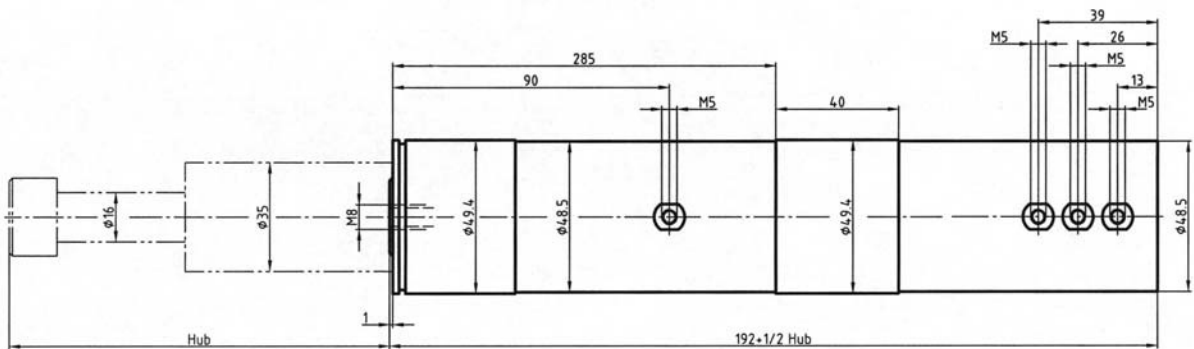
Piston∅	Compressive force at 6 bar in N	Tensile force at 6 bar in N	d <sub>1</sub> ∅	d <sub>2</sub> ∅	d <sub>3</sub> ∅	d <sub>4</sub>	d <sub>5</sub> ∅	d <sub>6</sub> ∅	d <sub>7</sub> ∅	d <sub>8</sub>	d <sub>9</sub>	WF	G	h <sub>1</sub>	h <sub>2</sub>	h <sub>3</sub>	h <sub>4</sub>	h <sub>5</sub>	h <sub>6</sub>	h <sub>7</sub>	h <sub>8</sub>
12/25/40	58	43	75	63	65	M6	6.6	20	M6	30	50	5	G1/8	92	15.5	3.5	12	34	11	9	12
16/30/50	102	62	85	73	10	M8	6.6	25	M6	35	60	8	G1/4	131	28	8	12	36	14	8	12
25/40/63	260	193	110	87	12	M10	6.6	25	M6	45	74	10	G1/4	140	27	7	12	46	14	8	12
30/50/80	370	200	130	107	20	M16x1.5	9	35	M8	55	91	17	G1/4	167.5	41	9	12	51	15	10	14
40/63/100	640	480	160	135	20	M16x1.5	11	35	M10	68	110	17	G1/4	186	41	9	20	60	14	16	20



1.1.5 Pneumatic telescoping cylinder 2-stage  $\varnothing$  30/42 mm

**Technical description:**

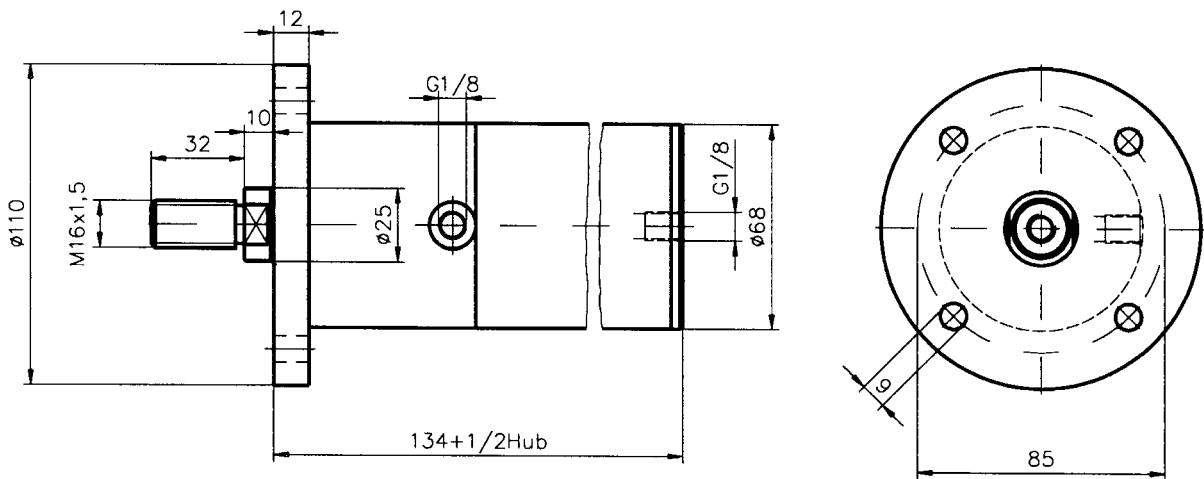
Design	2-stage
Piston diameter	30/42 mm
Function	Double-acting, without damper Variable velocity in both directions due to controlled expelled air, with pneumatic end-position query for retracted position.
Stroke lengths	up to 1000 mm (dependent on application)
Temperature range	-20°C to +80°C
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar



1.1.6 Pneumatic telescoping cylinder 2-stage  $\varnothing$  50/63 mm

**Technical description:**

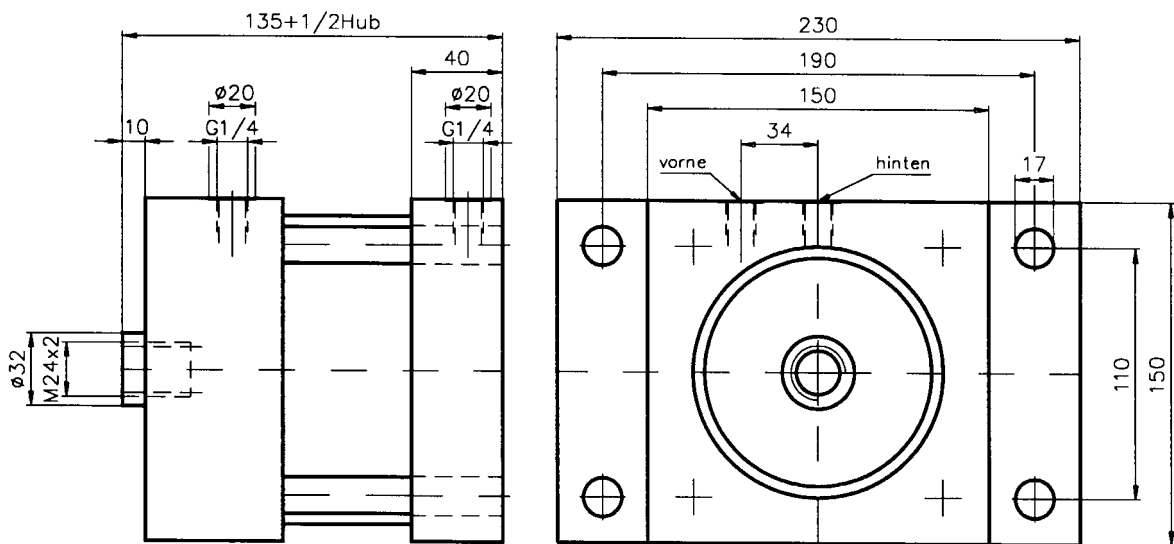
Design	2-stage
Piston diameter	50/63 mm
Function	Double-acting
Stroke lengths	Variable velocity in both directions due to controlled expelled air, up to 1000 mm (dependent on application)
Temperature range	-20°C to +80°C
Materials	Piston rod: stainless steel; telescoping tube: steel, chemically nickel-plated; cylinder: aluminium, hard anodized; front and end pieces: aluminium; seals: Perbunan
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar



1.1.7 Pneumatic telescoping cylinder 2-stage  $\varnothing$  100/125 mm

**Technical description:**

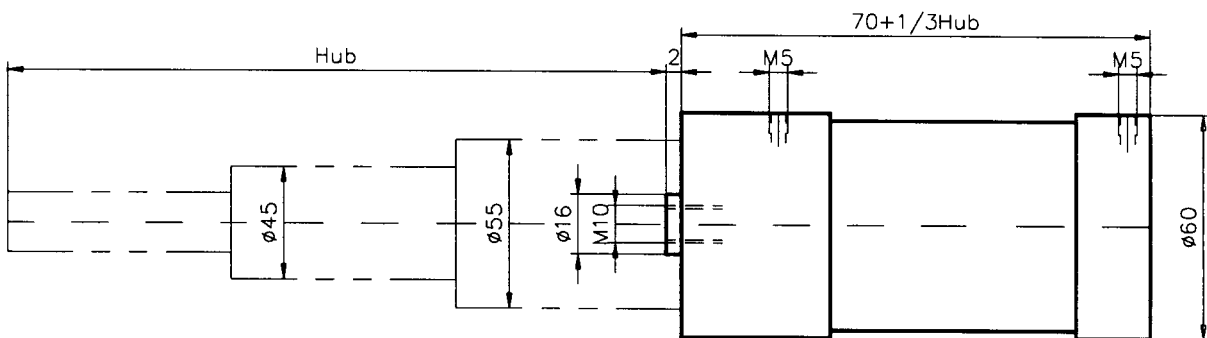
Piston diameter	100/125 mm
Function	Double-acting
Stroke lengths	Variable velocity in both directions due to controlled expelled air, up to 1000 mm
Temperature range	-20°C to +80°C
Materials	Piston rod: stainless steel; telescoping tube: chemically nickel-plated; cylinder: aluminium, hard anodized; front and end pieces: aluminium
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar



1.1.8 Pneumatic telescoping cylinder 3-stage  $\varnothing$  25/40/50 mm

**Technical description:**

Design	3-stage
Piston diameter	25/40/50 mm
Function	Double-acting, without damper
Stroke lengths	up to 1000 mm (dependent on application)
Temperature range	-20°C to +80°C
Materials	Piston rod: stainless steel; telescoping tube: steel, chemically nickel-plated; cylinder: aluminium, hard anodized; front and end pieces: aluminium; seals: Perbunan
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar



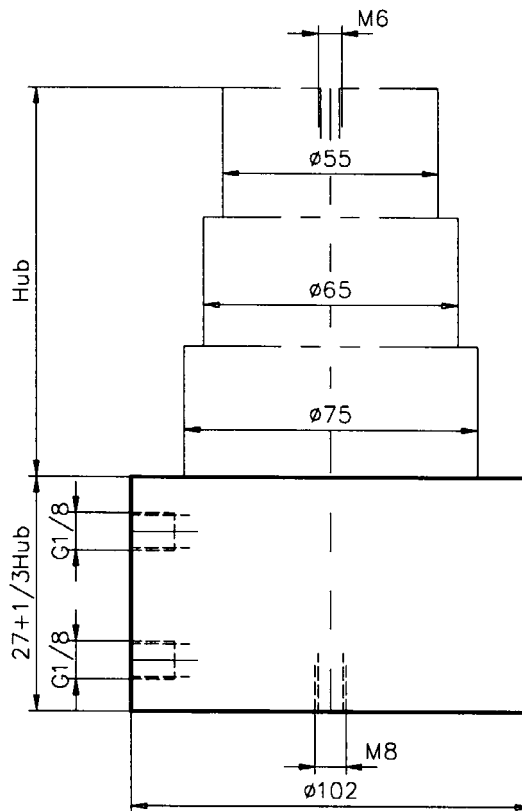
1.1.9 Pneumatic telescoping cylinder 3-stage  $\varnothing$  60/70/80 mm

**Technical description:**

Design	3-stage
Piston diameter	60/70/80 mm
Function	Double-acting
Stroke lengths	up to 200 mm (dependent on application)
Temperature range	-20°C to +80°C
Materials	Cylinder housing and telescoping tube: aluminium, hard anodized
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar

**Applications:**

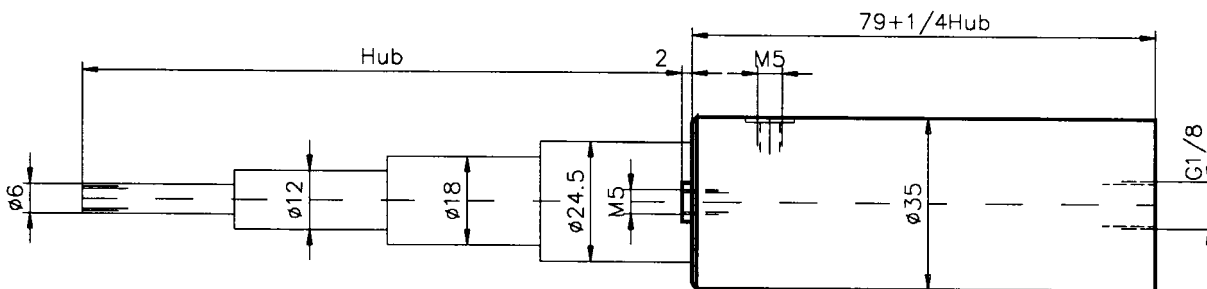
If large compressive forces and long strokes are required in a confined installation space.



1.1.10 Pneumatic telescoping cylinder 4-stage  $\varnothing$  8/14/20/30 mm

**Technical description:**

Design	4-stage
Piston diameter	8/14/20/30 mm
Function	Double-acting
Stroke lengths	up to 1000 mm (dependent on application)
Temperature range	-20°C to +80°C
Materials	Piston rod: stainless steel; telescoping tube: steel, chemically nickel-plated; front and end pieces: aluminium; seals: Perbunan
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar

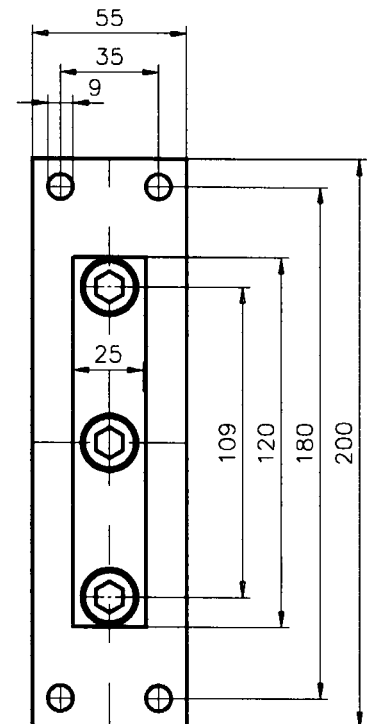
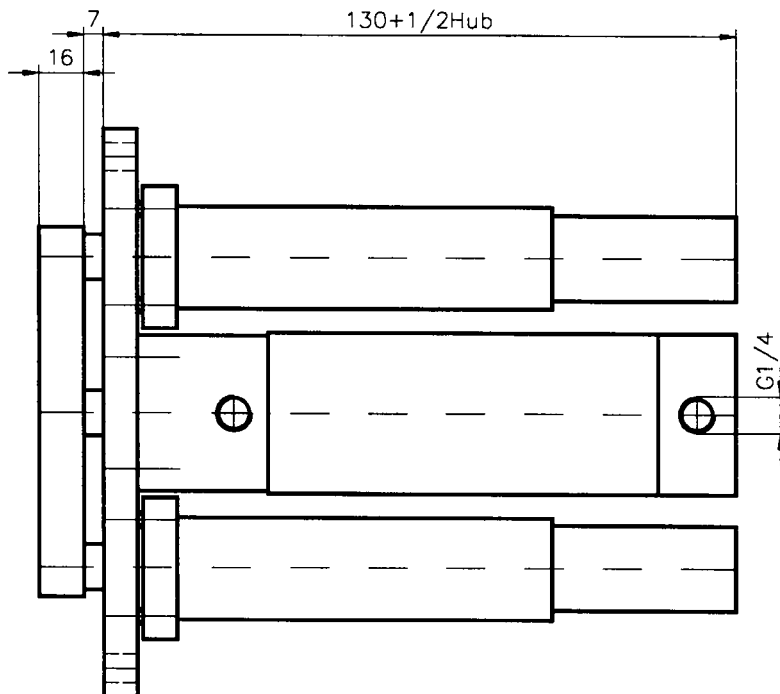


## 1.2 Pneumatic telescoping forward stroke units

### 1.2.1 Telescoping forward stroke unit 2-stage $\varnothing$ 30/50 mm

#### Technical description:

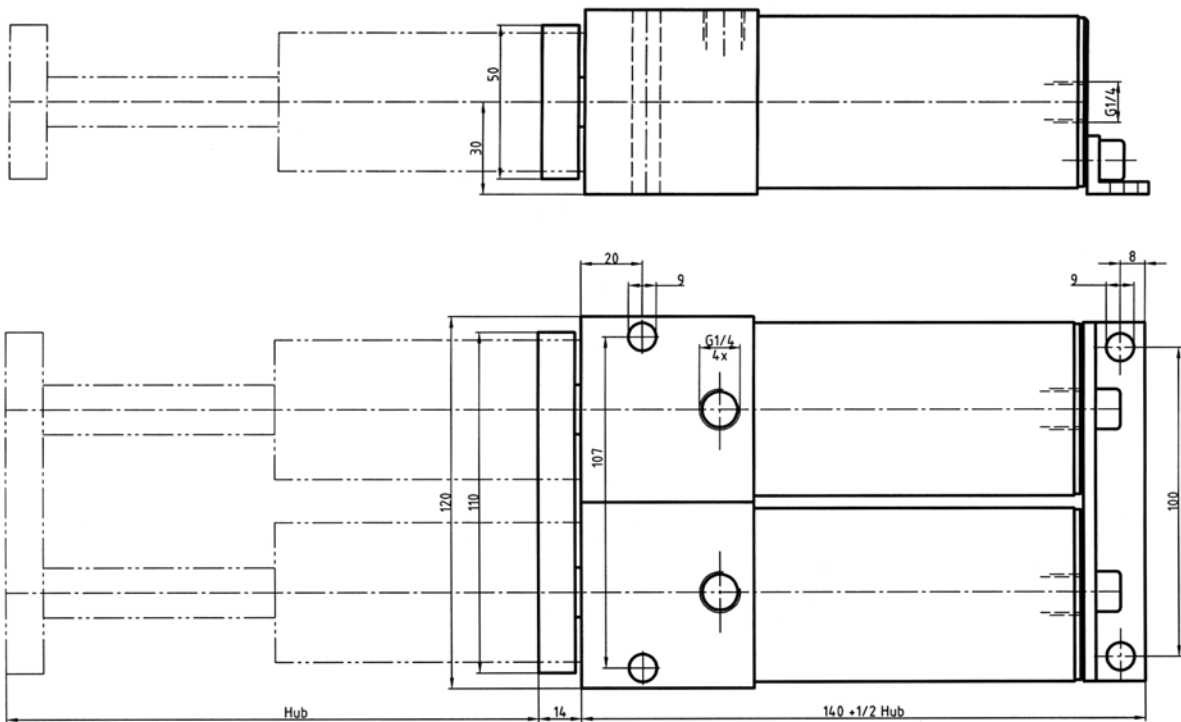
Design	2-stage
Piston diameter	30/50 mm
Function	Double-acting, without damper Locked by telescoping guide units to prevent rotating, variable velocity in both directions due to controlled expelled air.
Stroke lengths	up to 1000 mm (dependent on application)
Temperature range	-20°C to +80°C
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar



1.2.2 Telescoping forward stroke unit 2-stage  $\varnothing$  30/50 mm

**Technical description:**

Design	2-stage
Piston diameter	30/50 mm
Function	Double-acting, without damper Locked by telescoping guide unit to prevent rotating, variable velocity in both directions due to controlled expelled air.
Stroke lengths	up to 1000 mm (dependent on application)
Temperature range	-20°C to +80°C
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar



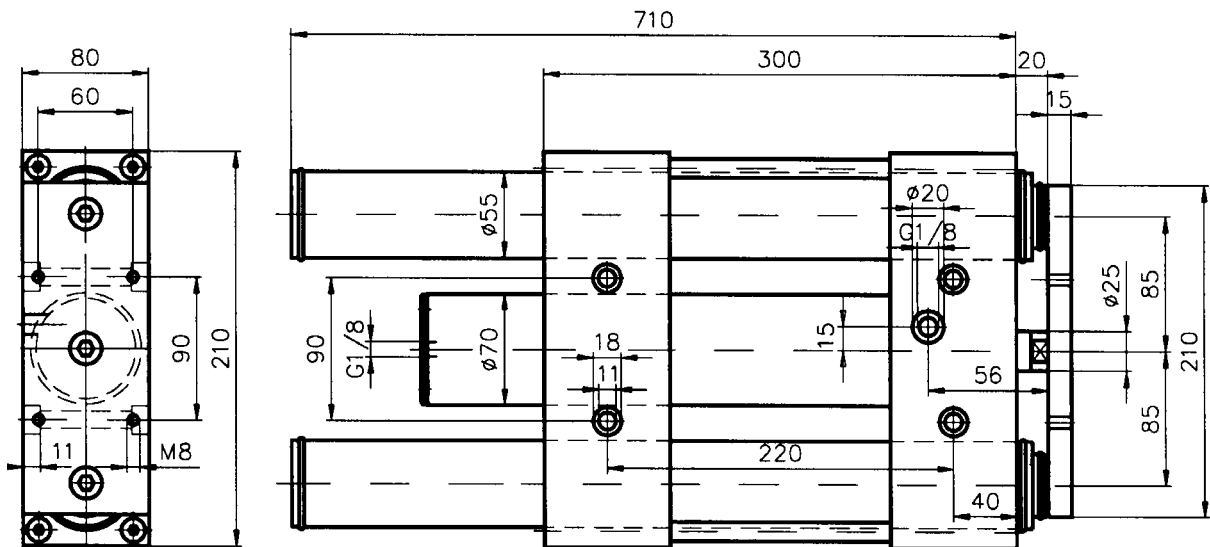
1.2.3 Telescoping forward stroke unit 2-stage  $\varnothing$  50/63 mm

**Technical description:**

Design	2-stage
Piston diameter	50/63 mm
Function	Double-acting, locked guide unit to prevent rotating, variable velocity in both directions due to controlled expelled air.
Stroke lengths	800 mm
Temperature range	-20°C to +80°C
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar

**Applications:**

For confined installation space and to dampen large lateral forces.





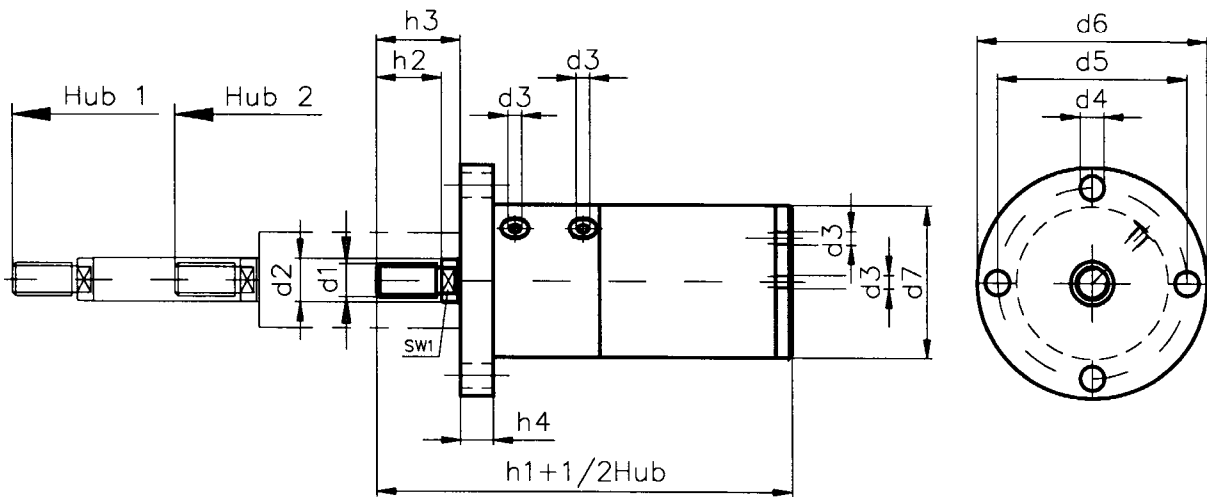
1.3.2 Telescoping multi-position cylinder 2-stage  $\varnothing$  30/50 mm,  $\varnothing$ 50/80 mm

**Technical description:**

Design	2-stage, short version
Piston diameter	30/50 mm, 50/80 mm
Function	Double-acting
Stroke lengths	up to 1000 mm (dependent on application)
Temperature range	-20°C to +80°C
Materials	Piston rod: stainless steel; telescoping tube: steel, chemically nickel-plated; cylinder: aluminium, hard anodized; front and end pieces: aluminium; seals: Perbunan
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar

**Functional description:**

The outer telescoping stage is held in rear end position by compressed air so that the inner stage can extend by the half stroke. By removing the counterpressure, the outer telescoping stage can extend the complete stroke. The reverse stroke is then a complete stroke.



Piston $\varnothing$	$d_1$	$d_2$ $\varnothing$	$d_3$	$d_4$ $\varnothing$	$d_5$ $\varnothing$	$d_6$ $\varnothing$	$d_7$ $\varnothing$	$h_1$	$h_2$	$h_3$	$h_4$
50/80	M16x1.5	20	G1/4	11	110	130	86	195	32	42	20
30//50	M12	16	M5	9	70	85	55	131	24	31	12

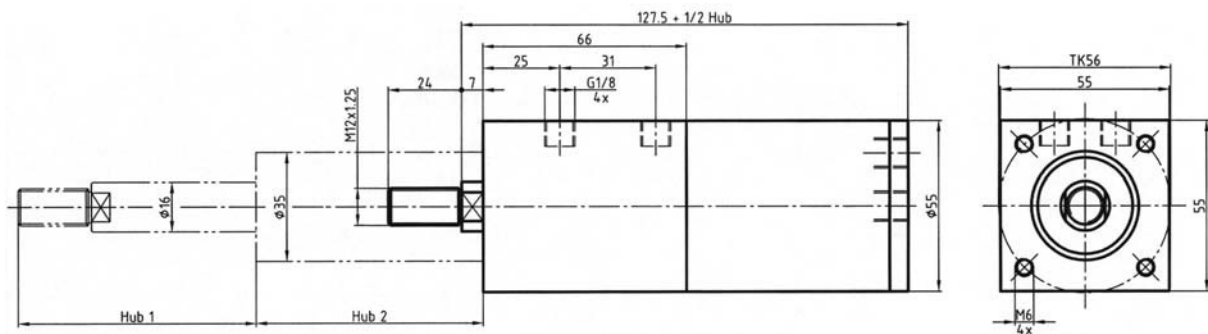
### 1.3.3 Telescoping multi-position cylinder 2-stage $\varnothing$ 30/50 mm

#### **Technical description:**

Design	2-stage, short version
Piston diameter	30/50 mm
Function	Double-acting, with damper
Stroke lengths	up to 1000 mm (dependent on application)
Temperature range	-20°C to +80°C
Materials	Piston rod: stainless steel; telescoping tube: steel, chemically nickel-plated; cylinder: aluminium, hard anodized; front and end pieces: aluminium; seals: Perbunan
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar

#### **Functional description:**

The forward stroke can travel in two stroke stages with the appropriate control.  
The reverse stroke is then a complete stroke.



1.3.4 Telescoping multi-position cylinder 2-stage  $\varnothing$  40/63 mm

**Technical description:**

Design	2-stage, short version
Piston diameter	40/63 mm
Function	Double-acting
Stroke lengths	up to 1000 mm (dependent on application)
Temperature range	-20°C to +80°C
Materials	Piston rod: stainless steel; telescoping tube: steel, chemically nickel-plated; cylinder: aluminium, hard anodized; front and end pieces: aluminium; seals: Perbunan
Medium	Filtered compressed air, oil-bearing, or not oil-bearing
Operating pressure	1 bar to 10 bar

**Functional description:**

The forward stroke can travel in two stroke stages with the appropriate control.  
The reverse stroke is then a complete stroke.

