

Here we are at home.



EUBA
electric actuators



Gate (Lock)
Zeppelin Hangar



Gate (Lock)
Zeppelin Hangar



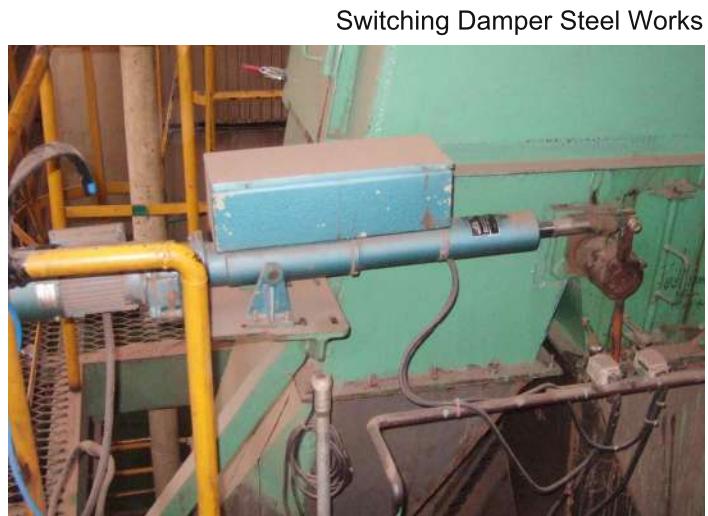
Slab Adjustment
Steel Works



Belt Feeder
Steel Works



Tilt Trough Adjustment
Steel Works



Switching Damper Steel Works



Double Cone Lock Sinter Plant
Steel Works



Belt Feeder
Steel Works



Tertiary Air Valve Cement Works



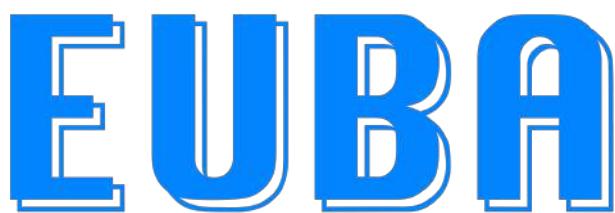
Desulfurization
Steel Works



Loading Facility
Cement Plant



Loading Facility
Cement Plant



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Our supplies and services are based on our terms of business.
Amendments of technical data as well as of measurements and weight specified in this catalogue are reserved.

General Description

EUBA - Nearly 60 years of Know-How in research and sale of electric actuators.

Custom-made solutions are our strength.
We offer actuators from minimum of 0,5 kN up to mega actuators with forces up to 2.000 kN.
A qualified team of engineers will advise you in case of actuating problems in situ.

Innovative research and permanent quality control during manufacturing establishes standards. For your safety naturally no actuator leaves the factory before extensive examination.

From the very beginning of your project you will be supported by qualified employees.

- ◆ Our engineering department also deals with special customer requests and offers solutions.
- ◆ For almost 60 years we manufacture our actuators with constant quality.
- ◆ Fast and professional assemblies will be done by our construction team.
- ◆ We also take on the planning and installation of the complete control engineering.

Become profitable from our worldwide "Know-How".



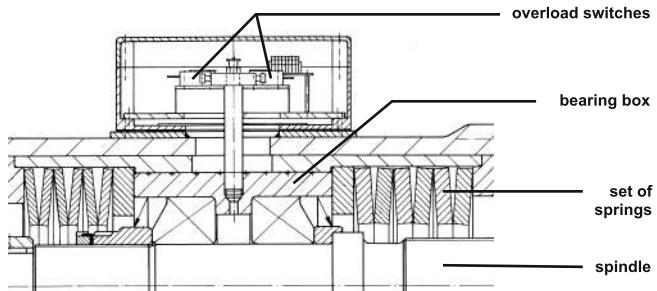
The actuators force can amount to 2.000 kN, with a stroke up to 7.000 mm and a variable velocity. Normally our actuators are manufactured with a hard chromium plated pushrod (special requests such as a ceramic plated pushrod can be considered). Commercial motor-gear combinations (A.C., D.C., et al.), which are connected to the actuator by a DIN IEC flange, are used. Rotary actuators, which are able to do complete revolutions, can also be flanged.

The base conception of this actuator is approved in heavy industry (steel plants, power plants, cement plants, et al.).

The actuator is made of a steel welded construction, sufficiently dimensioned and equipped with the several thousand times proved EUBA overload switches.

The advantages of the overload switches are:

- ◆ protection of the actuators
- ◆ absorption of axial impacts
- ◆ adjustable pressure forces
- ◆ wear-free attachment of motor and actuator (no slipping clutch)



Overload switch unit

Due to the variability of the spring characteristics, as well as the travel of the spring system, the overload switch is able to absorb huge axial impacts.

There is an optimal protection of the spindle against heavy loads, as the overload switch is integrated into the actuator.

The overload unit guarantees a shutdown in case of extensive forces.

Overloading or destruction of the mechanical adjustment elements and the devices to be actuated is therefore ruled out from the start.

Due to external switch boxes the overload switches are easy accessible.

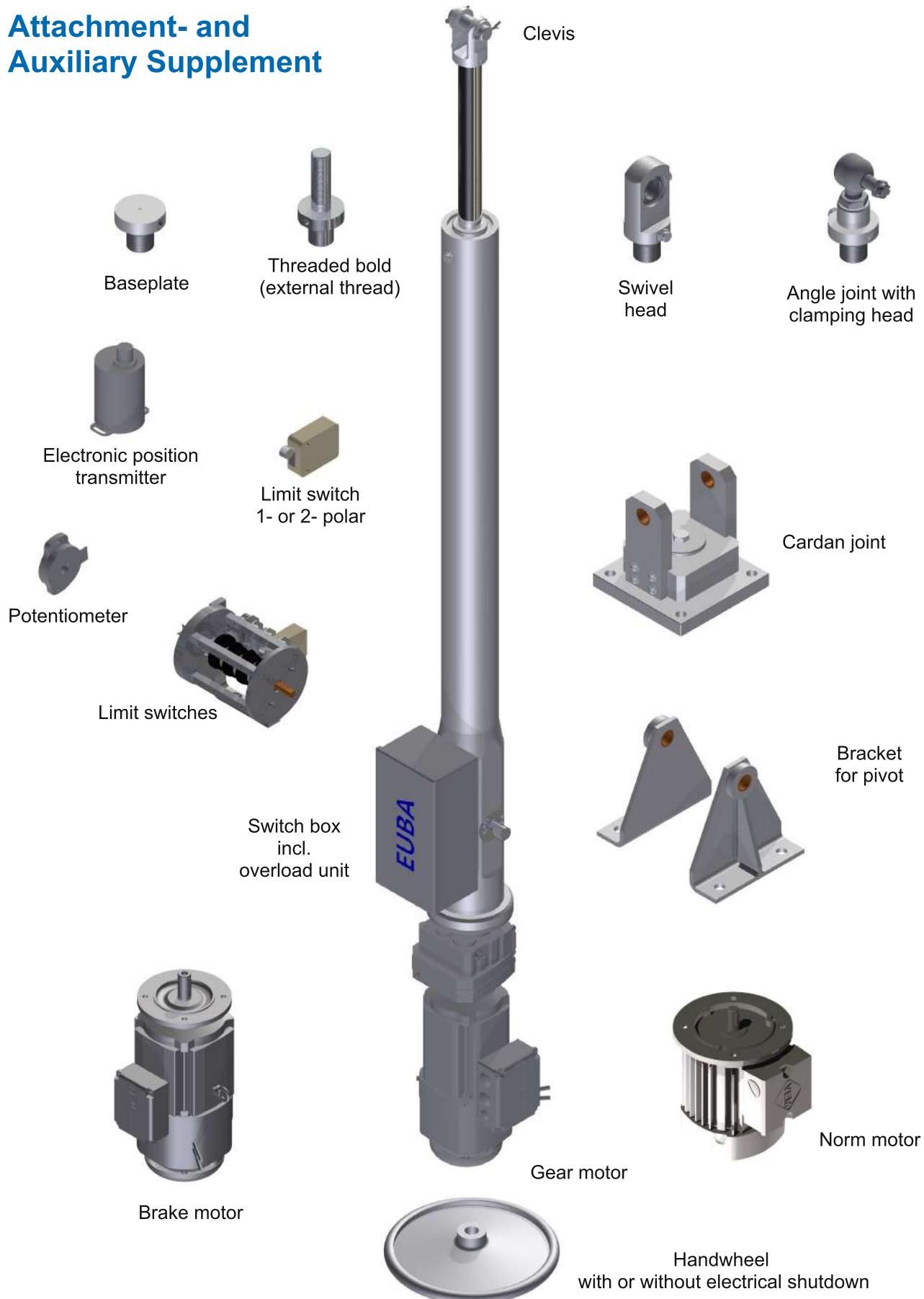
With the use of different sets of springs it is possible to adjust the overload switch to several push and pull forces and thus to specific demands.

EUBA actuators can be equipped with auxiliary attachments,

such as:

- ◆ Separate limit switches
- ◆ Adjustable way limit switches for the whole stroke
- ◆ Overload switches
- ◆ Electronic position repeating devices 4 – 20 mA (continous)
- ◆ Bus-compatible position controller (Profibus)
- ◆ Frequency transformers
- ◆ Synchronization control for 2 or more actuators
- ◆ Synchronous speed control for 2 or more actuators

Attachment- and Auxiliary Supplement



Technical Explanation

Calculations:

1. Determination of push-pull forces

For the calculations of push-pull forces for EUBA-actuators you have to consider the acceleration factors as specified in the chart below. This leads to the following calculation models:

a) Horizontal movement b) Vertical movement

$$F_8 = m \cdot a = \frac{G}{g} \cdot a \quad F = F_B + F_R + G$$

$$F_R = \mu \cdot G$$

$$F = F_B + F_R$$

F_B = acceleration force [N]

m = mass [kg]

a = acceleration [m/s^2]

G = load [N]

g = gravitational force [m/s^2]

F_R = frictional force [N]

μ = coefficient of friction

F = minimum neccessary force

of EUBA-actuator [N]

3. Operating frequency

The operating frequency (s/min) of the EUBA-actuators depend on the maximum switching operations of the commercial motors and its electrical self-heating.

The maximum switching frequency of the EUBA actuators per minute corresponds to half the maximum permissible idle switching of the motor per minute.

Hence we may infer the following average values:

P [k/W]	0,09	0,12	0,18	0,25	0,37	0,55	0,75
s [1/min]	35	35	30	25	25	20	20

P [k/W]	1,1	1,5	2,2	3	4	5,5	7,5
s [1/min]	18	15	15	10	8	6	6

Above given data is meant for $n = 1500$ 1/min and a maximum ambient temperature of $t = 40^\circ\text{C}$.

The operating frequency depends on stroke and velocity also.

Attention:

A motor-switch over from a left-handed into a right-handed rotation or vice versa is not allowed without a shutdown of the motor itself.

2. Acceleration factors

According to the specific velocity you have to use the following acceleration factors as an average value:

v [mm/s]	25	45	75	90	120	150	175	180
a [m/s ²]	1	2	3	4	5	6	7	8

For special environmental and aggressive conditions EUBA-actuators can be sandblasted according to SA 2,5 and can be varnished with a coating thickness up to 240 µm.

If the actuators are used in explosion hazardous plants, an application of limit-and overload switches as well as three phased motors are required according to ATEX-norm.

Protection class IP-55 is the standard of all EUBA-actuators, but they are available up to protection class IP-65 on request.

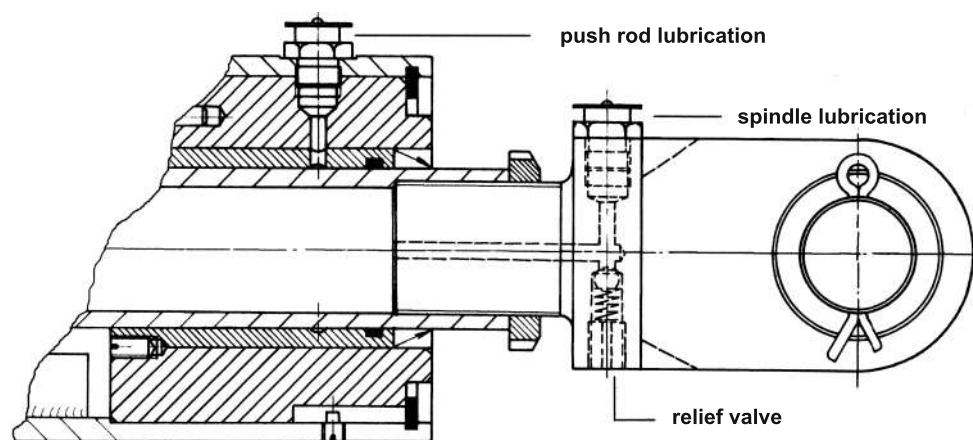
For an operation of the actuator during power failure we recommend a handwheel. For these actuators, the motor shaft protudes at the end. It is possible to equip the motor shaft with a handwheel.

If demanded an electrical shutdown of the motor can be ensued when the handwheel is attached. The vacant second motor shaft is covered with a protection rod during normal operation all the time.

Depending on the requirements EUBA-actuators are equipped with different lubricants. The specifications of the used lubricants can be found in the operation and maintenance manual.

Usually the actuators are filled with Li-EP 2 grease.

The maintenance of the EUBA-actuators is limited to regular relubrication of the spindle nut-system. An excess pressure protection impedes an overlubrication of the actuator.

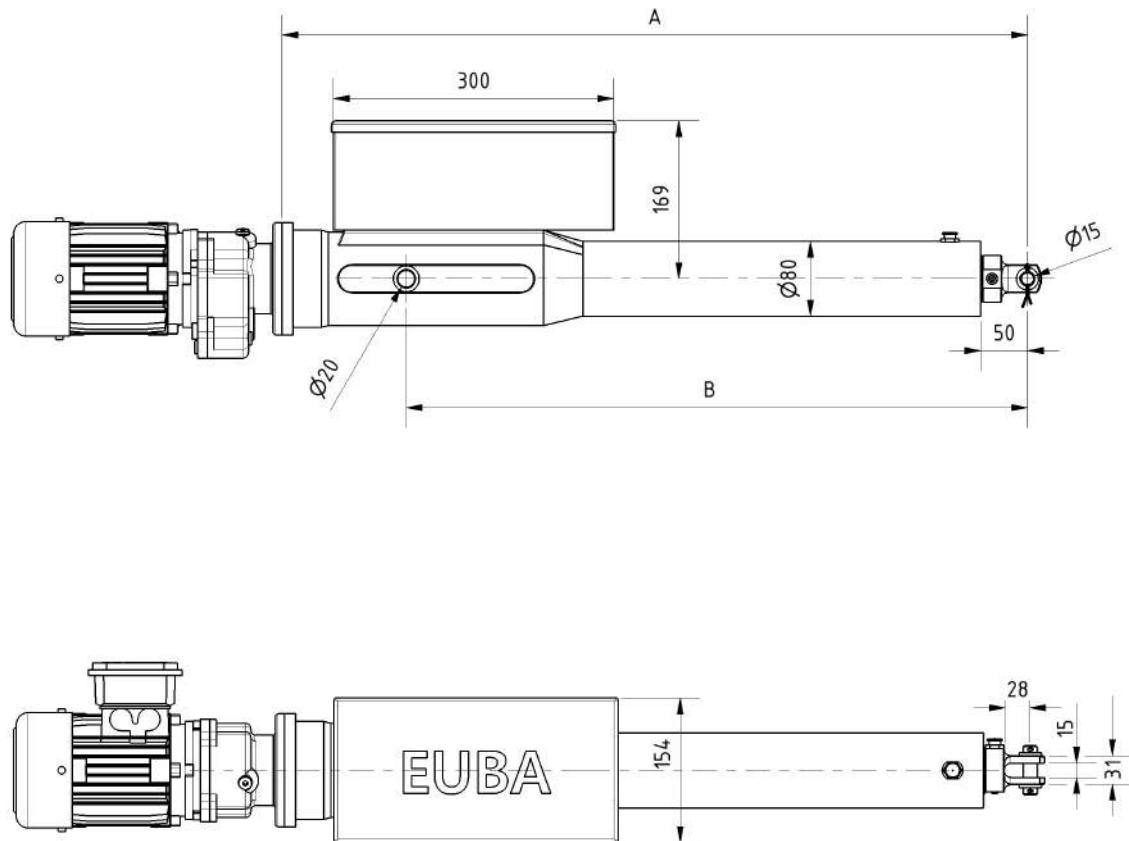


Survey of Products Standard Design

EUBA-Type	max. force F up to	max. velocity v up to	max. stroke up to	page
A 4	5 kN	90 mm/s	600 mm	11
B 4	25 kN	180 mm/s	1.250 mm	14
C 4	40 kN	120 mm/s	2.500 mm	17
D 4	150 kN	60 mm/s	4.000 mm	20
E 4	500 kN	30 mm/s	4.000 mm	
F 4	2.000 kN	10 mm/s	4.000 mm	

For the determination of forces, please consider calculations on page 8.

Type A4:



Mounting dimension actuator in mm (weight: 25-35kg)

stroke	0	50	100	150	200	250	300	350	400	450	500	550	600
A-size	400	450	500	550	600	650	700	750	800	850	900	950	1000
B-size	200	250	300	350	400	450	500	550	600	650	700	750	800

Actuator dimensions can vary, especially the motor dimensions due to different brands.

B-size changeable (+/- 100 mm)

Motor dimensions depending on motor type and supplier.

Power chart:

		P in kW in accordance with DIN IEC					
		5	25	45	63	70	94
v in mm/s		1	0,09	0,12	0,18	0,18	0,25
F in kN	2	0,09	0,18	0,37	0,37	0,55	0,55
	3	0,09	0,25	0,55	0,55	0,75	1,10
	4	0,09	0,37	0,55	0,75	1,10	1,10
	5	0,12	0,37	0,75	1,10	1,10	1,50

Forces in between min. and max. can be changed as required.

Standard design:

- Pivot
- Clevis

Special design:

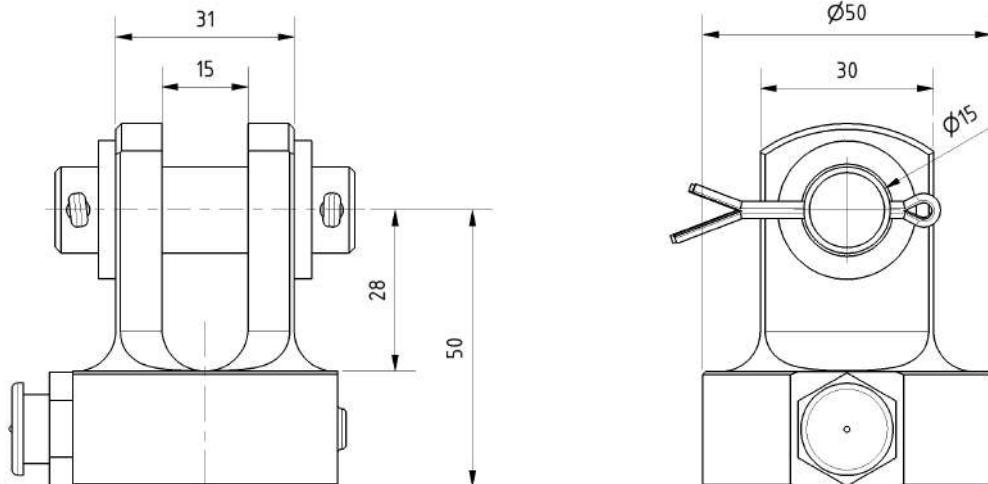
- Brackets
- Foot mounting
- Cardan joint
- Special fixing
- Shackle toggle joint
- Angle ball
- High temperature range up to +80° C
- Low temperature range down to - 40° C
- Protection class up to IP- 65

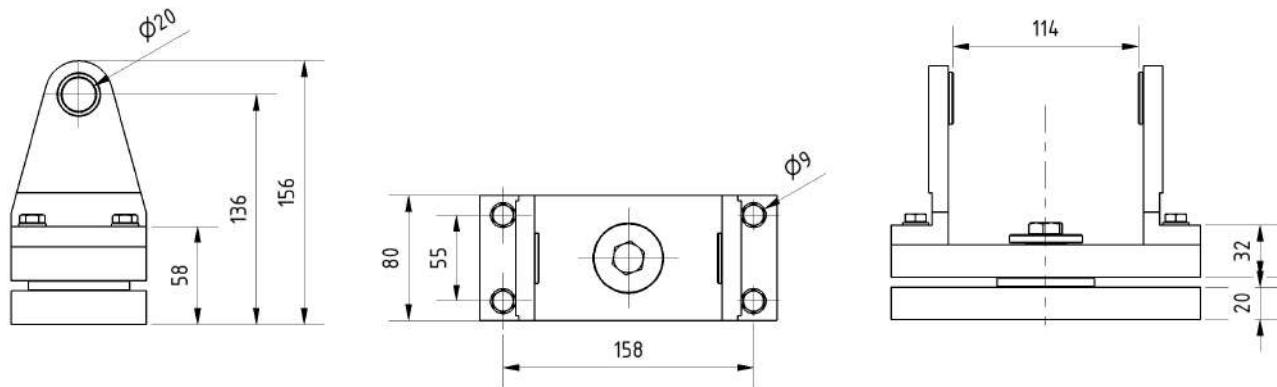
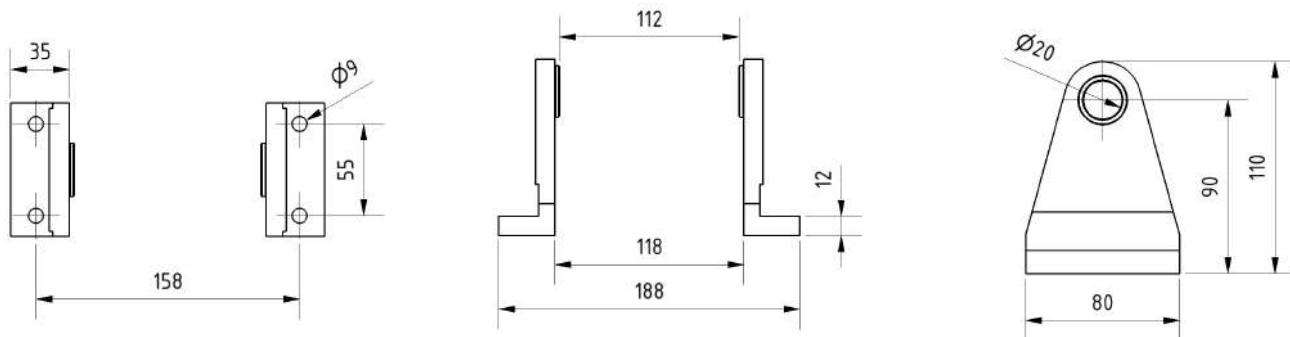
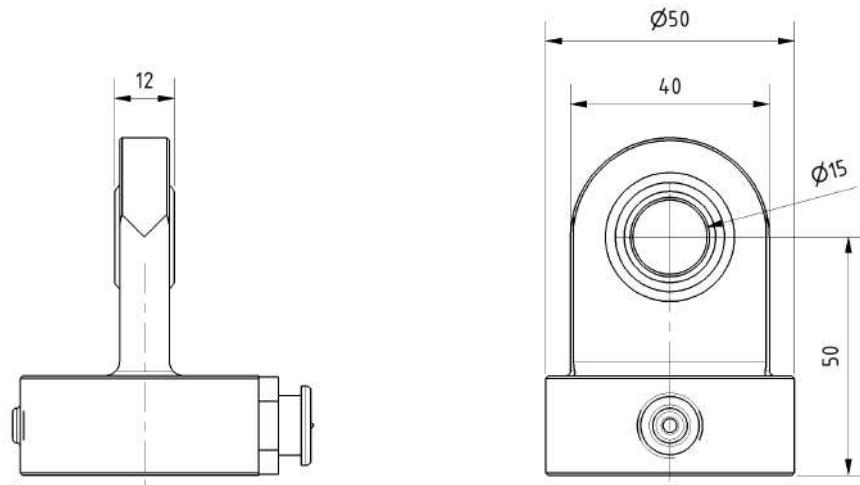
Actuator:

- Steel, with overload switches
- Acme screw threat spindle
- Spindle bearing system (overload protection unit), on both sides supported by spring piles
- Chrome plated push rod with internal torsion protection and scraper
- Temperature range from -10° C to +40° C

Motor: Attachment of DIN IEC flange- and gear motors (manufacturer independent)

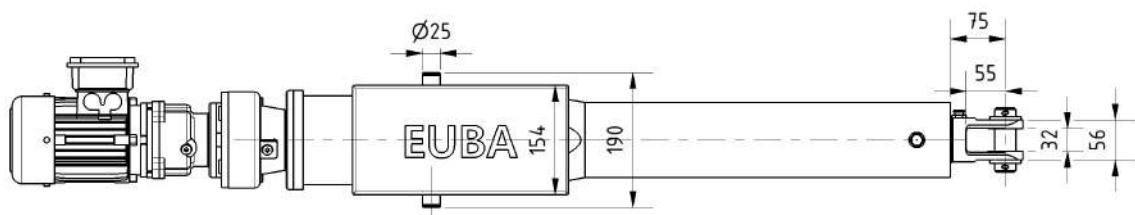
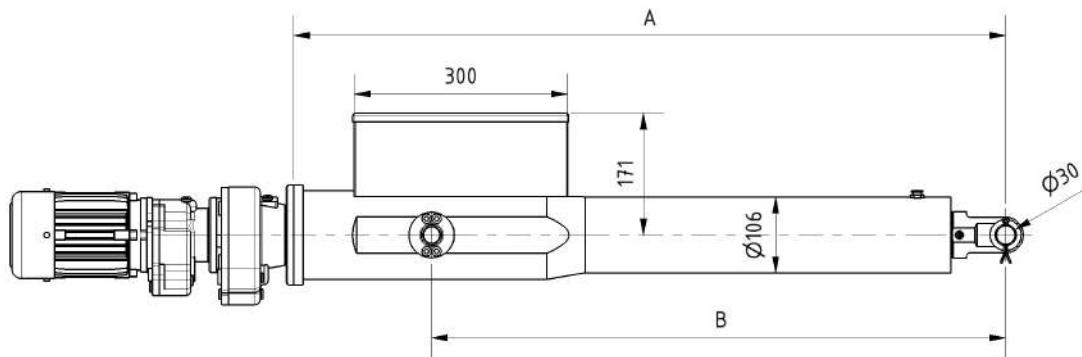
Clevis:



Cardan joint:

Brackets for pivot:

Shackle toggle joint:


Please use request sheet on page 28 for a detailed technical layout. Minor changes in dimensions are possible due to production tolerances.

Type B4:



Mounting dimension actuator in mm (weight: 60-80 kg)													
stroke	0	50	100	150	200	250	300	350	400	450	500	550	600
A-size	500	550	600	650	700	750	800	850	900	950	1000	1050	1100
B-size	308	358	408	458	508	558	608	658	708	758	808	858	908
stroke	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
A-size	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750
B-size	958	1008	1058	1108	1158	1208	1258	1308	1358	1408	1458	1508	1558

Actuator dimensions can vary, especially the motor dimensions due to different brands.

B-size changeable (+/- 100 mm)

Motor dimensions depending on motor type and supplier.

Power chart:

		P in kW in accordance with DIN IEC						
v in mm/s		5	25	40	63	80	94	118
F in kN	5	0,09	0,37	0,75	1,10	1,50	1,50	2,20
	7,5	0,12	0,55	1,10	1,50	2,20	2,20	3,00
	10	0,18	0,75	1,50	2,20	-	3,30	4,00
	15	0,25	1,10	2,20	-	-	-	-
	20	0,37	1,50	3,00	-	-	-	-
	25	0,37	2,20	3,00	-	-	-	-

Forces in between min. and max. can be changed as required.

Standard design:

- Pivot
- Clevis

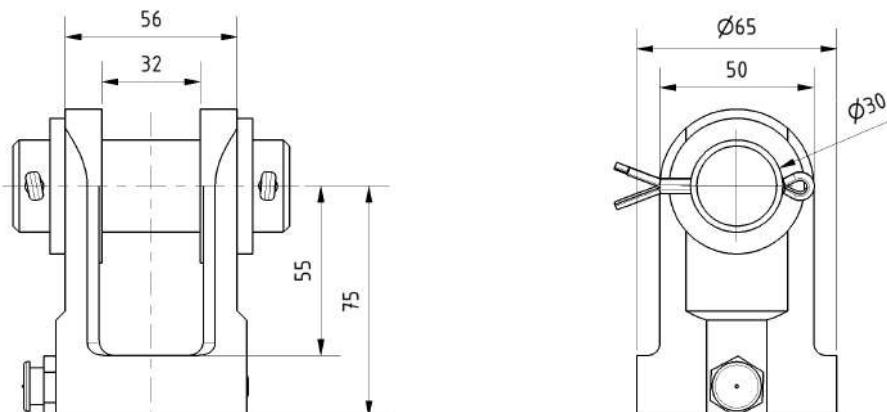
Special design:

- Brackets
- Foot mounting
- Cardan joint
- Special fixing
- Shackle toggle joint
- Angle ball
- High temperature range up to +80° C
- Low temperature range down to - 40° C
- Protection class up to IP- 65

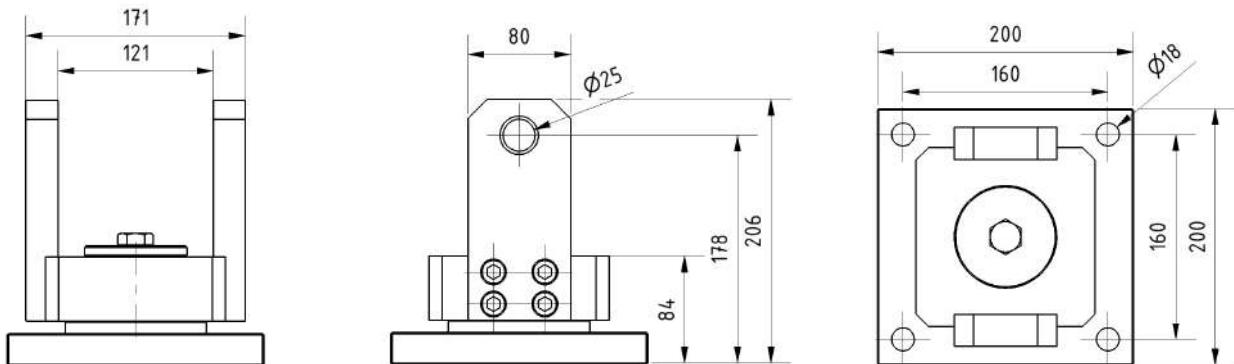
Actuator:

- Steel, with overload switches
- Acme screw threat spindle
- Spindle bearing system (overload protection unit), on both sides supported by spring piles
- Chrome plated push rod with internal torsion protection and scraper
- Temperature range from -10° C to +40° C

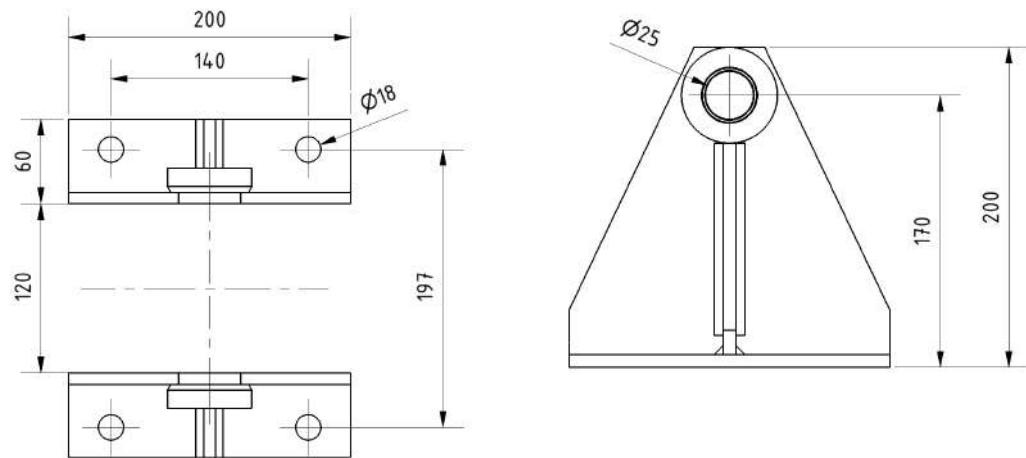
Motor: Attachment of DIN IEC flange- and gear motors (manufacturer independent)

Clevis:

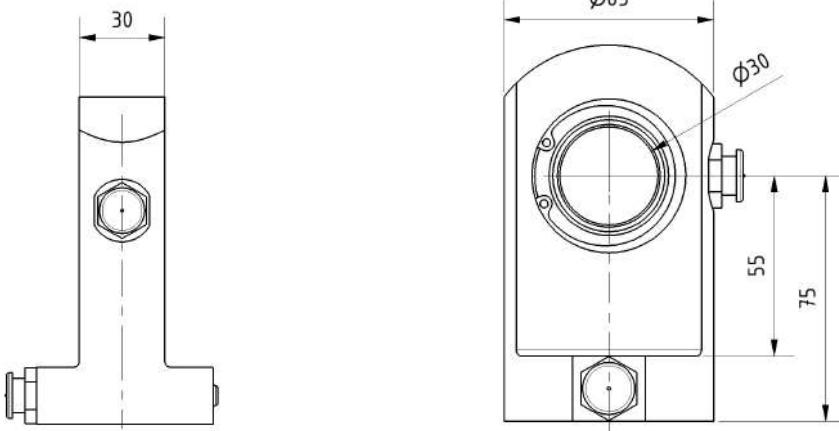
Cardan joint:



Brackets for pivot:

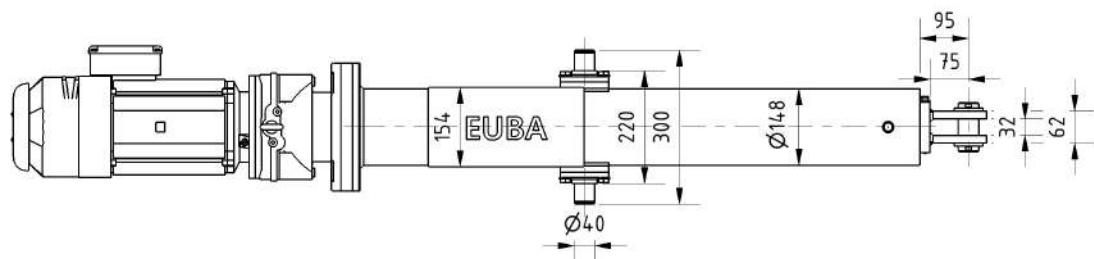
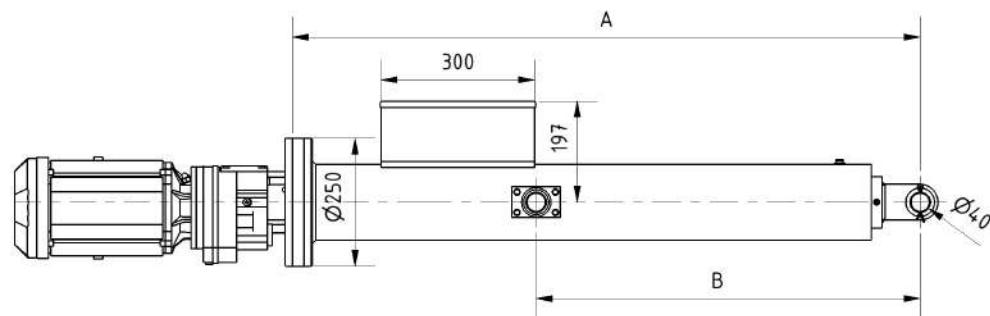


Shackle toggle joint:



Please use request sheet on page 28 for a detailed technical layout. Minor changes in dimensions are possible due to production tolerances.

Type C4:



Mounting dimension actuator in mm (weight: 120-250 kg)																
stroke	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750
A-size	625	675	725	775	825	875	925	975	1025	1075	1125	1175	1225	1275	1325	1375
B-size	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000
stroke	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	
A-size	1425	1475	1525	1575	1625	1675	1725	1775	1825	1875	1925	1975	2025	2075	2125	
B-size	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	

Actuator dimensions can vary, especially the motor dimensions due to different brands.

B-size changeable (+/- 100 mm)

Motor dimensions depending on motor type and supplier.

Power chart:

		P in kW in accordance with DIN IEC						
v in mm/s		5	15	25	35	45	111	166
F in kN	15	0,25	0,75	1,10	2,20	2,20	5,50	7,50
	20	0,37	1,10	1,50	2,20	3,00	-	-
	25	0,55	1,50	2,20	3,00	4,00	-	-
	30	0,55	1,50	3,00	4,00	4,00	-	-
	40	0,75	2,00	3,00	5,50	5,50	-	-
	50	0,75	3,00	4,00	5,50	7,50	-	-

Forces in between min. and max. can be changed as required.

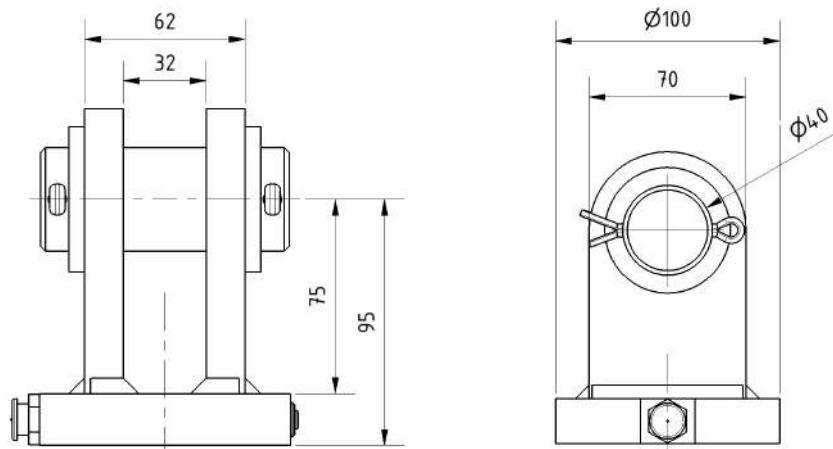
Standard design: - Pivot
- Clevis

Special design: - Brackets
- Foot mounting
- Cardan joint
- Special fixing
- Shackle toggle joint
- Angle ball
- High temperature range up to +80° C
- Low temperature range down to - 40° C
- Protection class up to IP- 65

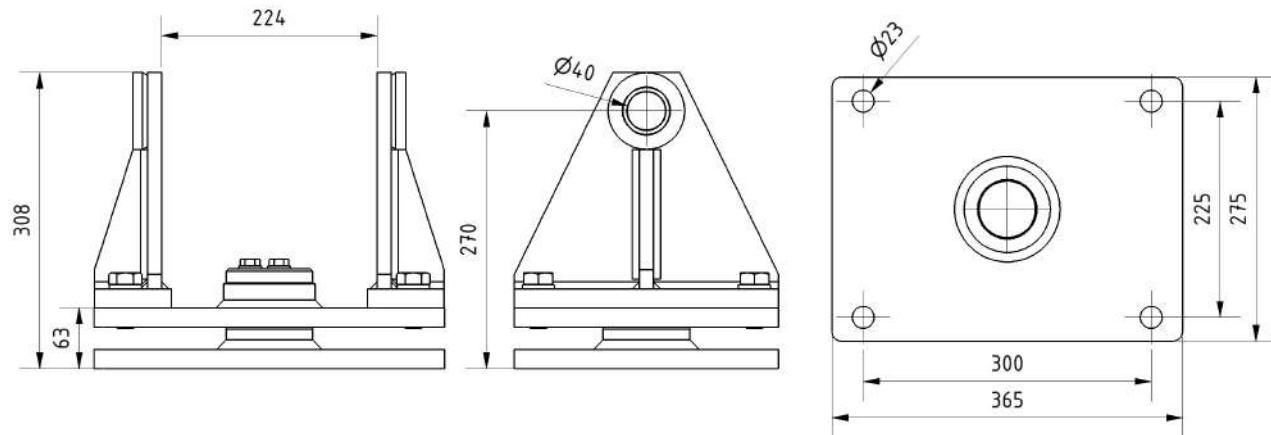
Actuator: - Steel, with overload switches
- Acme screw threat spindle
- Spindle bearing system (overload protection unit), on both sides supported by spring piles
- Chrome plated push rod with internal torsion protection and scraper
- Temperature range from -10° C to +40° C

Motor: Attachment of DIN IEC flange- and gear motors (manufacturer independent)

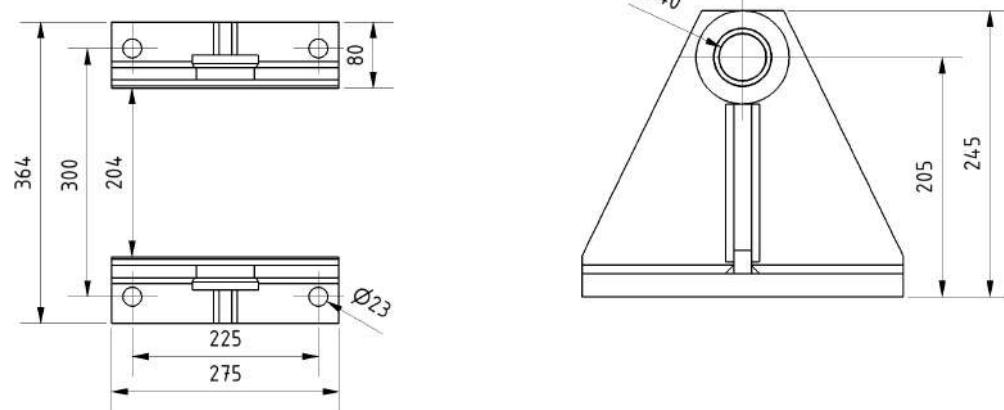
Clevis:



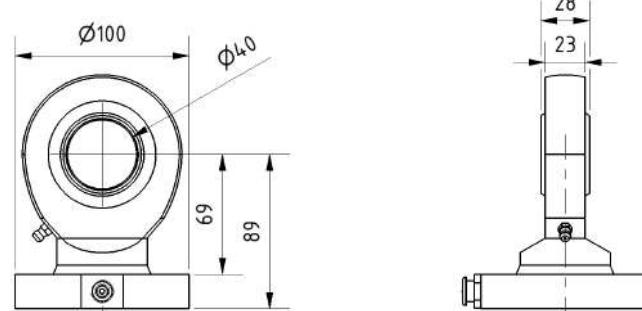
Cardan joint:



Brackets for pivot:

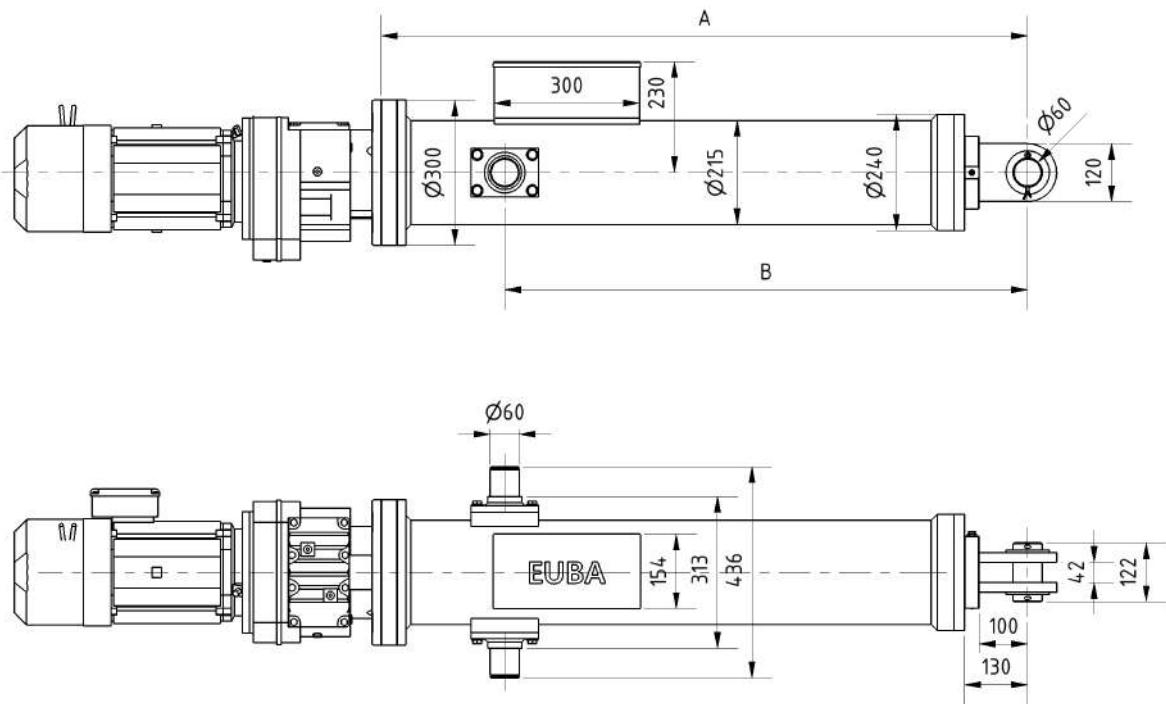


Shackle toggle joint:



Please use request sheet on page 28 for a detailed technical layout. Minor changes in dimensions are possible due to production tolerances.

Type D4:



Mounting dimension actuator in mm (weight: 150-400 kg)																
stroke	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750
A-size	835	885	935	985	1035	1085	1135	1185	1235	1285	1335	1385	1435	1485	1535	1585
B-size	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250
stroke	800	850	900	950	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	
A-size	1635	1685	1735	1785	1835	1935	1035	1135	1235	1335	1435	1535	1635	1735	1835	
B-size	1300	1350	1400	1450	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	2500	

Actuator dimensions can vary, especially the motor dimensions due to different brands.

B-size changeable (+/- 100 mm)

Motor dimensions depending on motor type and supplier.

Power chart:

		P in kW in accordance with DIN IEC						
v in mm/s		5	15	25	35	40	50	60
F in kN	40	0,75	2,20	4,00	5,50	7,50	7,50	9,20
	60	1,10	4,00	5,50	7,50	9,20	11,00	15,00
	80	1,50	5,50	7,50	11,00	15,00	15,00	18,50
	100	2,20	5,50	9,20	15,00	15,00	18,50	22,00
	125	2,20	7,50	11,00	18,50	18,50	22,00	30,00
	150	3,00	9,20	15,00	18,50	22,00	30,00	-

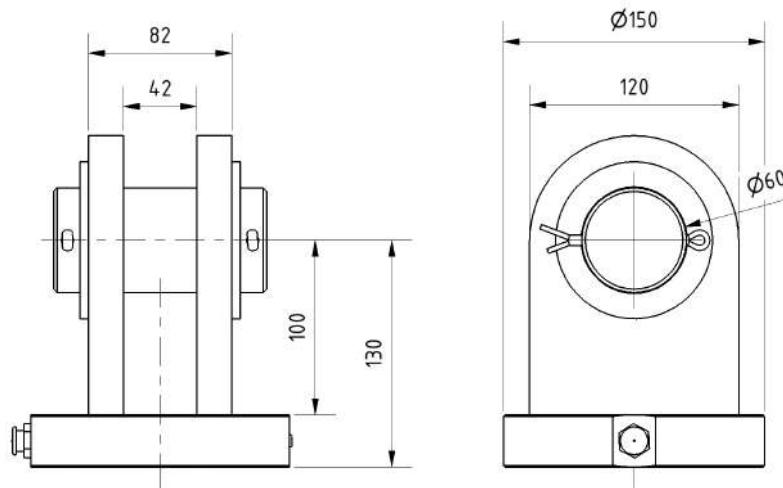
Forces in between min. and max. can be changed as required.

Standard design: - Pivot
- Clevis

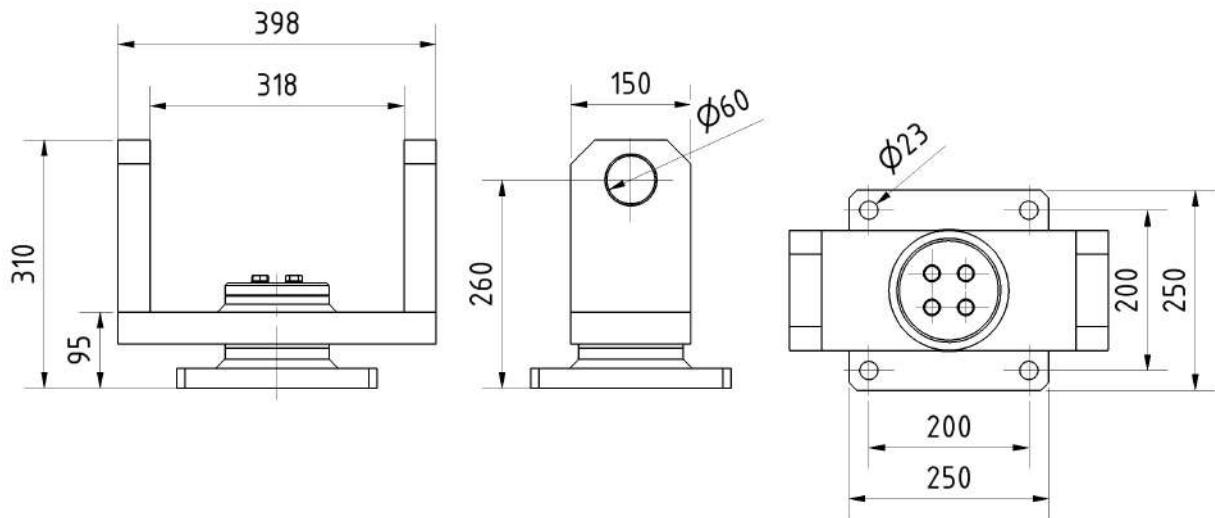
Special design: - Brackets
- Foot mounting
- Cardan joint
- Special fixing
- Shackle toggle joint
- Angle ball
- High temperature range up to +80° C
- Low temperature range down to - 40° C
- Protection class up to IP- 65

Actuator: - Steel, with overload switches
- Acme screw threat spindle
- Spindle bearing system (overload protection unit), on both sides supported by spring piles
- Chrome plated push rod with internal torsion protection and scraper
- Temperature range from -10° C to +40° C

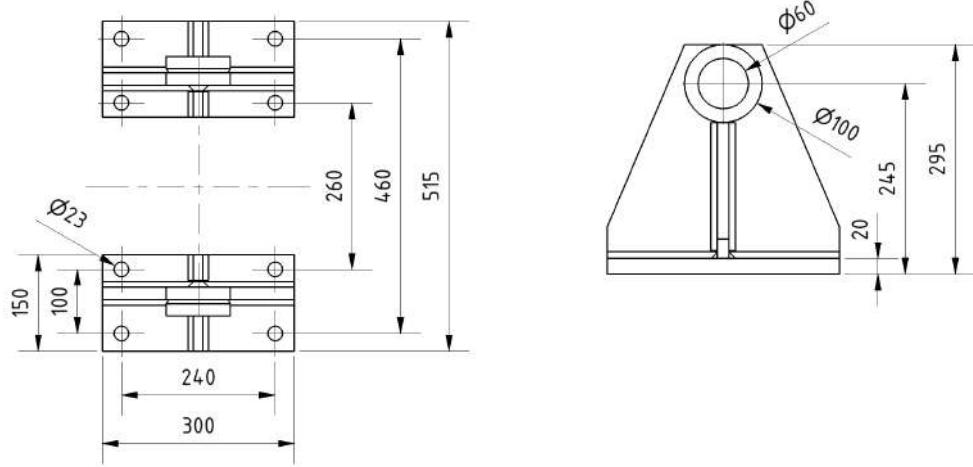
Motor: Attachment of DIN IEC flange- and gear motors (manufacturer independent)

Clevis:

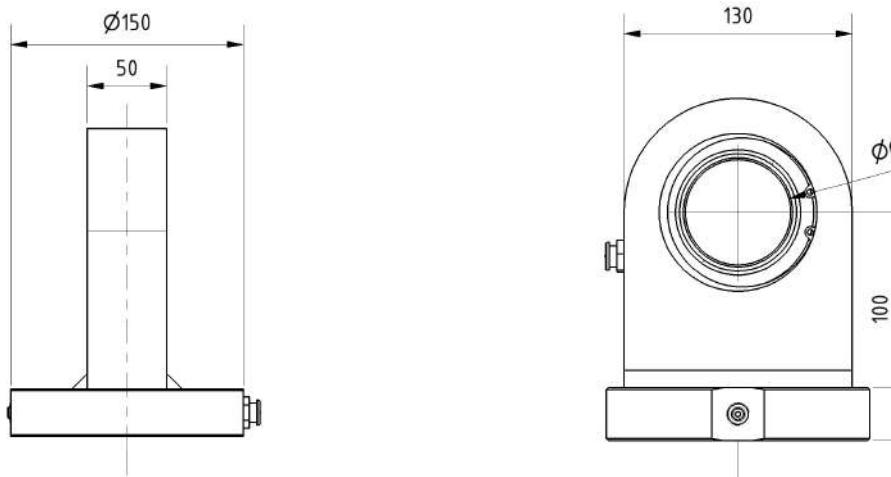
Cardan joint:



Brackets for pivot:



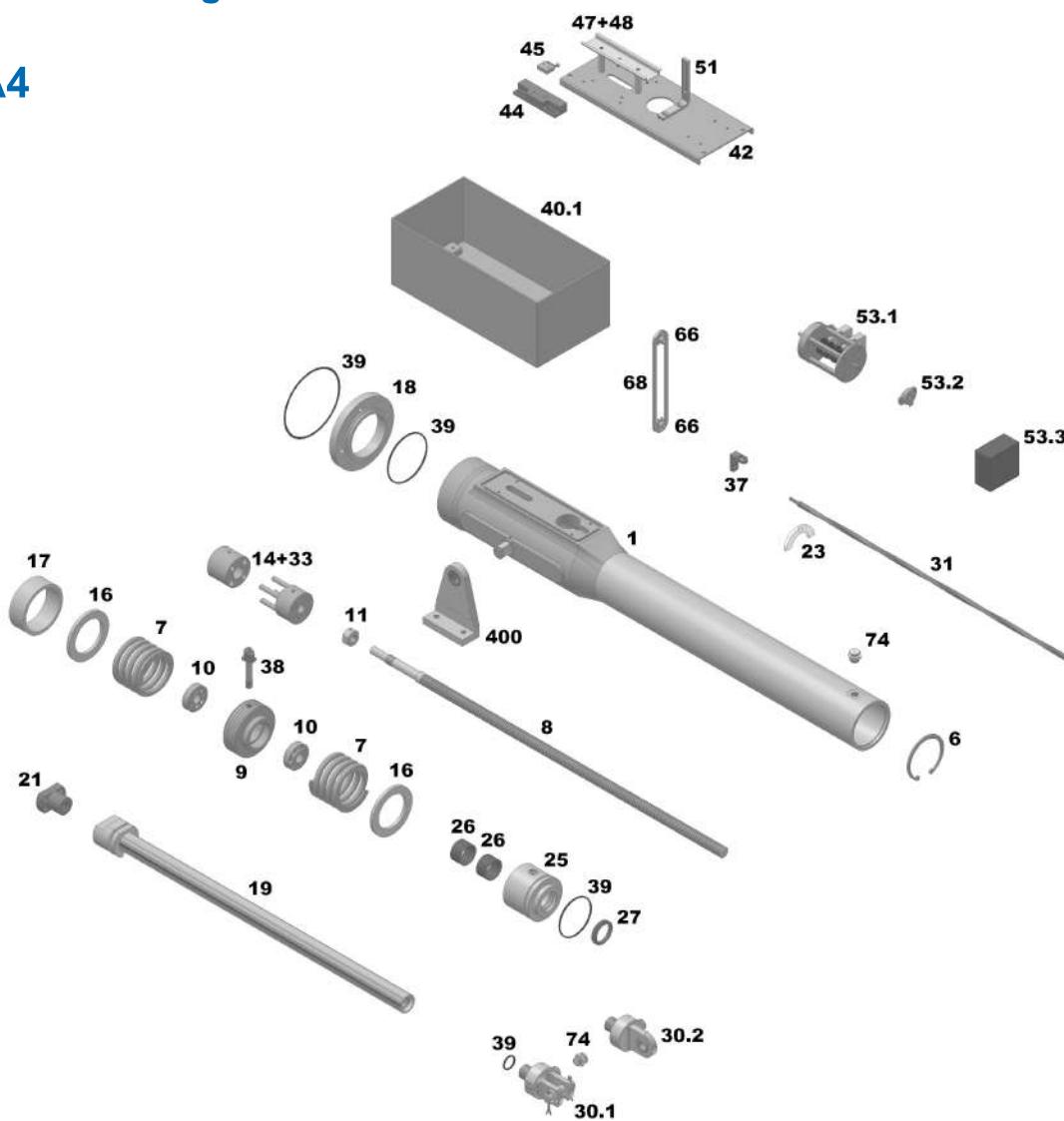
Shackle toggle joint:



Please use request sheet on page 28 for a detailed technical layout. Minor changes in dimensions are possible due to production tolerances.

Spare parts drawing of EUBA-actuators

Type A4



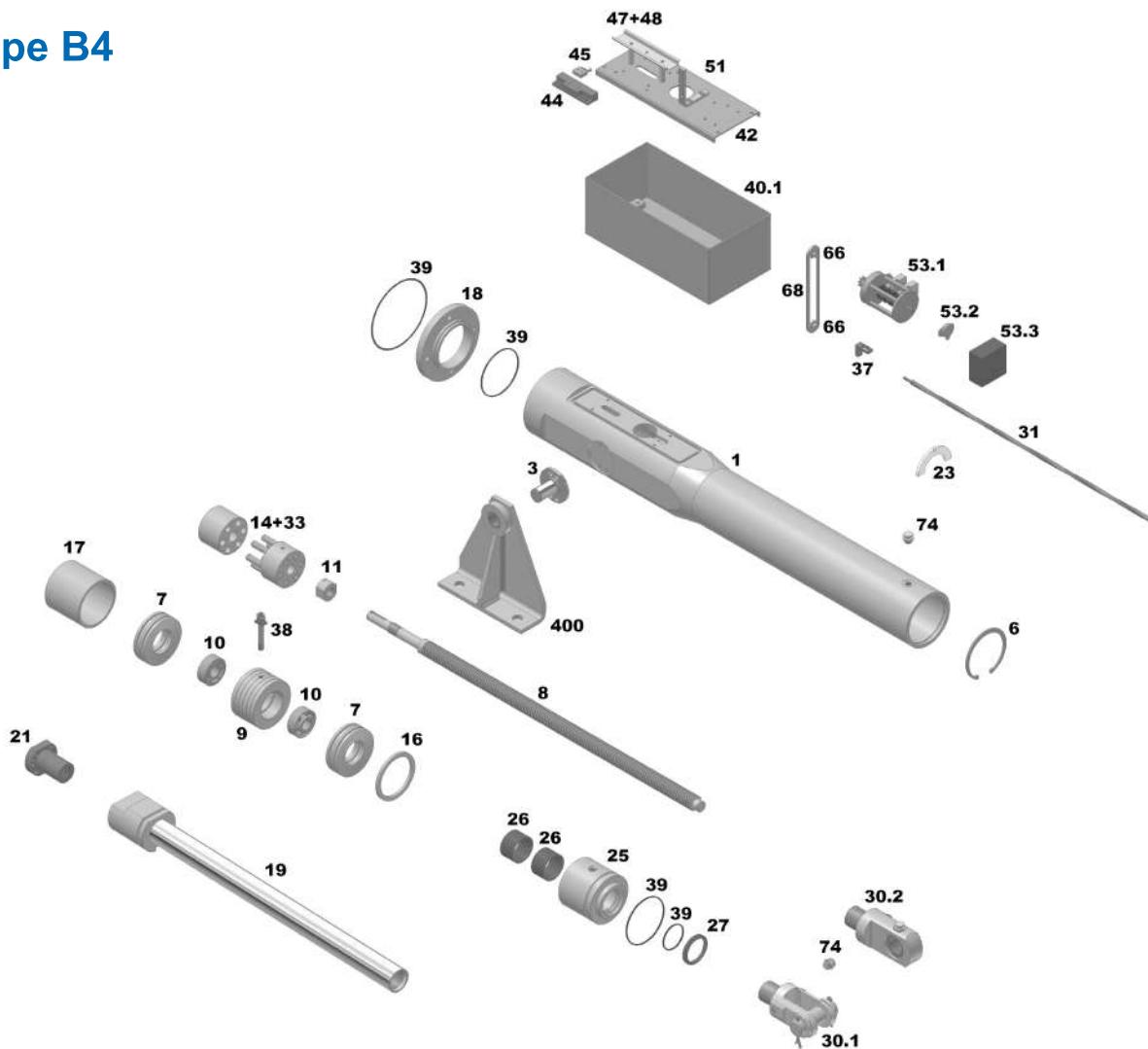
<u>Object</u>	<u>Quantity</u>	<u>Description</u>	<u>Object</u>	<u>Quantity</u>	<u>Description</u>
1	1	Actuator housing	31	1	Torsion rod
6	1	Circlip	37	1	Angle for torsion rod
7	Set	Pressure / Cup spring	38	1	Shift pin
8	1	Acme threat spindle	39*	Set	O-rings (complete)
9	1	Bearing housing	40.1	1	Switch box (complete)
10*	2	Tapered roller bearing	42	1	Mounting board
11*	1	Shaft nut	44	2	Micro end switch board
14+33	Set	Coupling (complete)	45*	Set	Micro end switch
16	2	Spacer ring	47+48	Set	Distance pin and rail
17	1	Spacer sleeve	51	1	Angle for position indicator
18	1	Flange	53.1	1	Position indicator
19	1	Push rod (complete)	53.2	1	Potentiometer
21*	1	Acme spindle nut	53.3	1	Electronic position
23*	1	Torsion rod guide	66 + 68	Set	transmitter 0/4...20mA
25	1	Push rod guide	66 + 68	Set	Sprockets + Roller chain
26*	2	Bushing guide	74*	Set	(complete)
27*	1	Scraper	74*	Set	Flat grease nipple
30.1	1	Clevis (complete)	400	Set	Brackets
30.2	1	Swivel head (complete)			

* = wear out parts

Please indicate actuator number as well as the position of the spare part list. For online spare parts enquiries please go to www.euba.de

Spare parts drawing of EUBA-actuators

Type B4



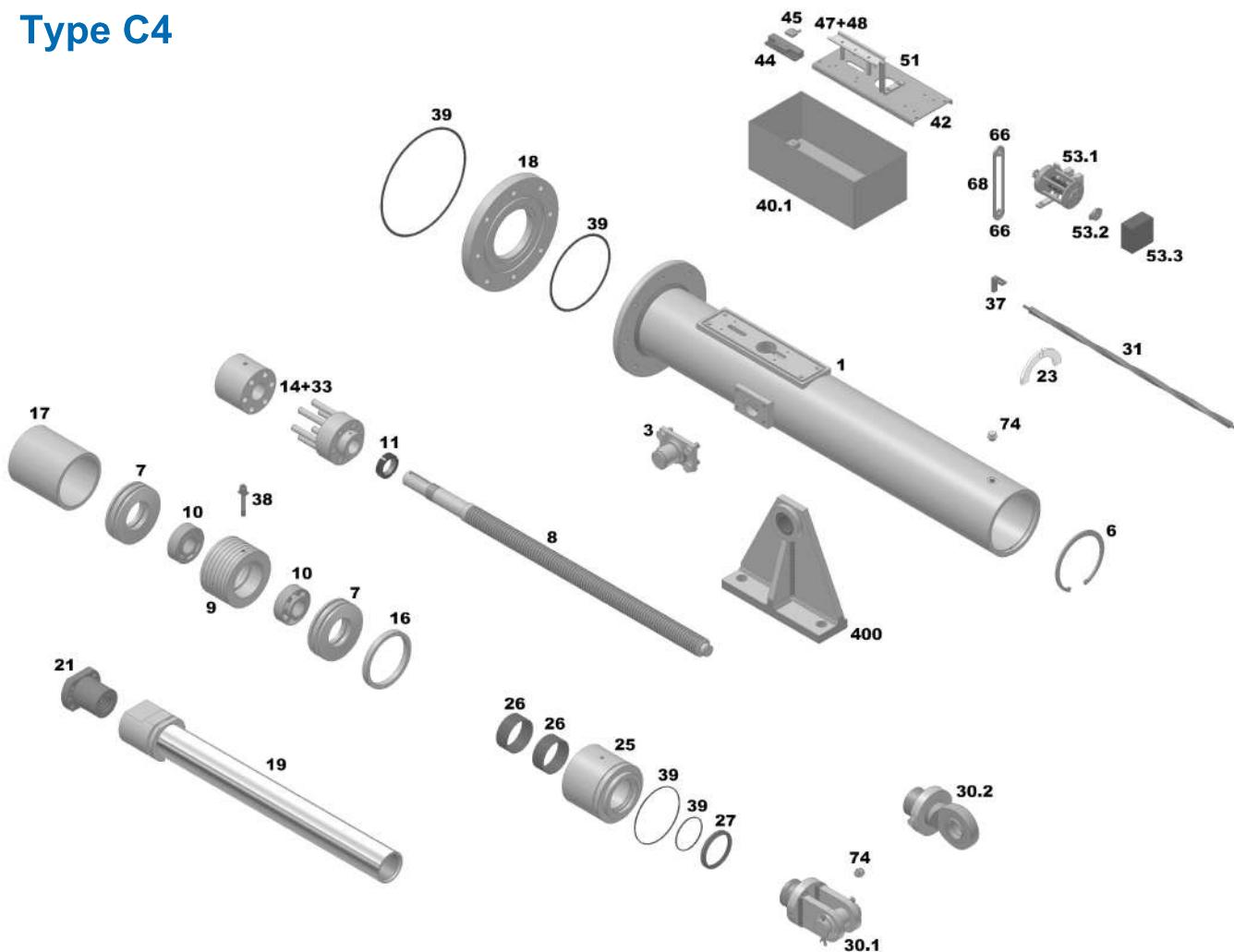
<u>Object</u>	<u>Quantity</u>	<u>Description</u>	<u>Object</u>	<u>Quantity</u>	<u>Description</u>
1	1	Actuator housing	30.1	1	Clevis (complete)
3	Satz	Pivot	30.2	1	Swivel head (complete)
6	1	Circlip	31	1	Torsion rod
7	Satz	Pressure / Cup spring	37	1	Angle for torsion rod
8	1	Acme thread spindle	38	1	Shift pin
9	1	Bearing housing	39*	Set	O-rings (complete)
10*	2	Tapered roller bearing	40.1	1	Switch box (complete)
11*	1	Shaft nut	42	1	Mounting board
14+33	2	Coupling (complete)	44	2	Micro end switch board
16	2	Spacer ring	45*	Set	Micro end switch
17	1	Spacer sleeve	47+48	Set	Distance pin and rail
18	1	Flange	51	1	Angle for position indicator
19	1	Push rod (complete)	53.1	1	Position indicator
21*	1	Acme spindle nut	53.2	1	Potentiometer
23*	1	Torsion rod guide	53.3	1	Electronic position transmitter 0/4...20mA
25	1	Push rod guide	66 + 68	Satz	Sprockets + Roller chain (complete)
26*	2	Bushing guide	74*	Set	Flat grease nipple
27*	1	Scraper	400	Set	Brackets

* = wear out parts

Please indicate actuator number as well as the position of the spare part list. For online spare parts enquiries please go to www.euba.de

Spare parts drawing of EUBA-actuators

Type C4



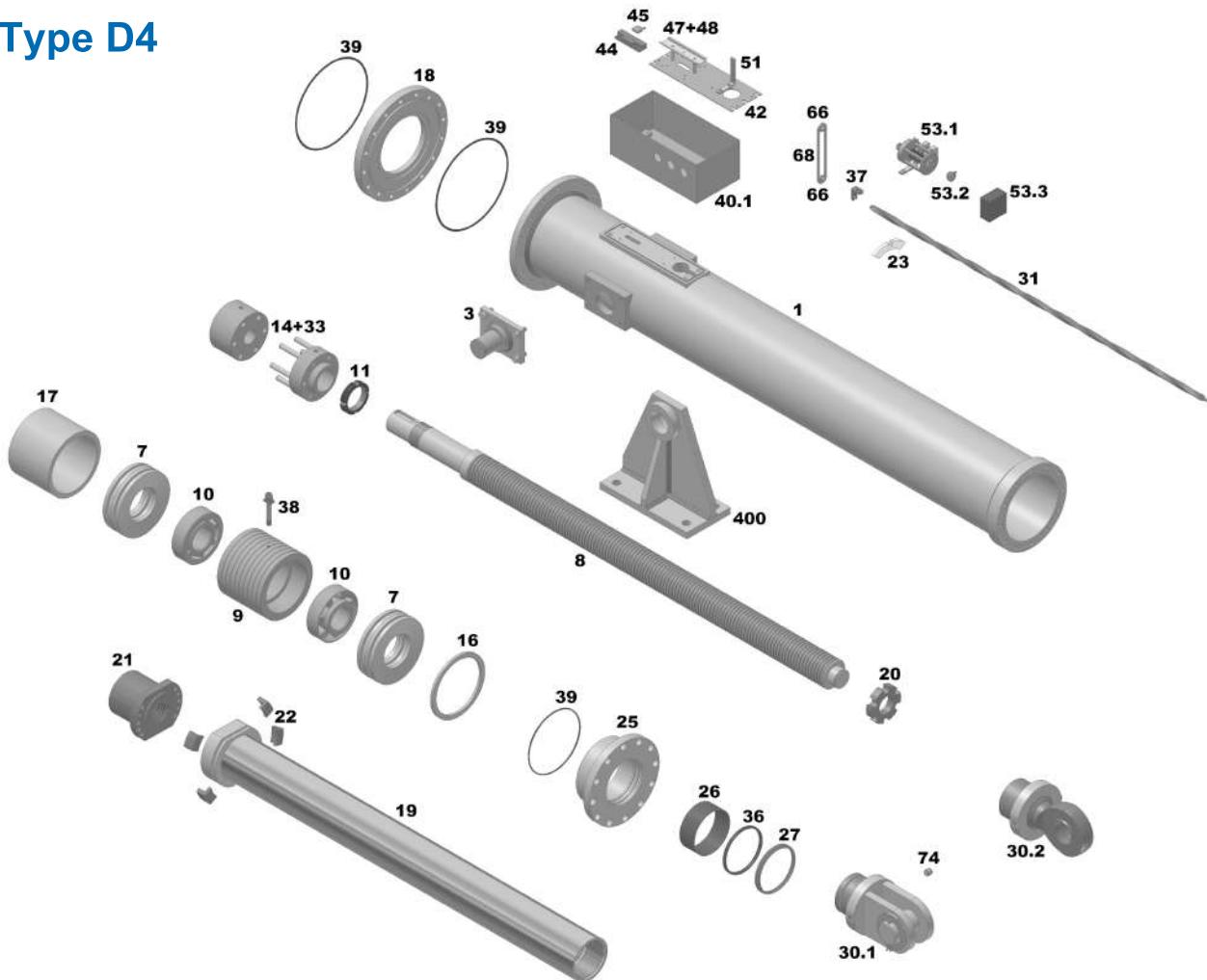
<u>Object</u>	<u>Quantity</u>	<u>Description</u>	<u>Object</u>	<u>Quantity</u>	<u>Description</u>
1	1	Actuator housing	30.1	1	Clevis (complete)
3	Satz	Pivot	30.2	1	Swivel head (complete)
6	1	Circlip	31	1	Torsion rod
7	Satz	Pressure / Cup spring	37	1	Angle for torsion rod
8	1	Acme threat spindle	38	1	Shift pin
9	1	Bearing housing	39*	Set	O-rings (complete)
10*	2	Tapered roller bearing	40.1	1	Switch box (complete)
11*	1	Shaft nut	42	1	Mounting board
14+33	2	Coupling (complete)	44	2	Micro end switch board
16	2	Spacer ring	45*	Set	Micro end switch
17	1	Spacer sleeve	47+48	Set	Distance pin and rail
18	1	Flange	51	1	Angle for position indicator
19	1	Push rod (complete)	53.1	1	Position indicator
21*	1	Acme spindle nut	53.2	1	Potentiometer
23*	1	Torsion rod guide	53.3	1	Electronic position transmitter 0/4...20mA
25	1	Push rod guide	66 + 68	Satz	Sprockets + Roller chain (complete)
26*	2	Bushing guide	68*	Set	Flat grease nipple
27*	1	Scraper	400	Set	Brackets

* = wear out parts

Please indicate actuator number as well as the position of the spare part list. For online spare parts enquiries please go to www.euba.de

Spare parts drawing of EUBA-actuators

Type D4



<u>Object</u>	<u>Quantity</u>	<u>Description</u>	<u>Object</u>	<u>Quantity</u>	<u>Description</u>
1	1	Actuator housing	30.1	1	Clevis (complete)
3	Set	Pivot	30.2	1	Swivel head (complete)
7	Set	Pressure / Cup spring	31	1	Torsion rod
8	1	Acme threat spindle	36	1	Lip seal
9	1	Bearing housing	37	1	Angle for torsion rod
10*	2	Tapered roller bearing	38	1	Shift pin
11*	1	Shaft nut	39*	Set	O-rings (complete)
14+33	Set	Coupling (complete)	40.1	1	Switch box (complete)
16	2	Spacer ring	42	1	Mounting board
17	1	Spacer sleeve	44	2	Micro end switch board
18	1	Flange	45*	Set	Micro end switch
19	1	Push rod (complete)	47+48	Set	Distance pin and rail
20	1	Buffer	51	1	Angle for position indicator
21*	1	Acme spindle nut	53.1	1	Position indicator
22*	Set	Sliding blocks	53.2	1	Potentiometer
23*	1	Torsion rod guide	53.3	1	Electronic position transmitter 0/4...20mA
25	1	Push rod guide	66 + 68	Satz	Sprockets + Roller chain (complete)
26*	2	Bushing guide	74*	Set	Flat grease nipple
27*	1	Scraper	400	Set	Brackets

* = wear out parts

Please indicate actuator number as well as the position of the spare part list. For online spare parts enquiries please go to www.euba.de

Special Actuators

Special designed actuators:

Actuators Type W:

These actuators are specially designed for hydro engineering. The provisions of the DIN-standards for these actuators are realized by a special assembly.

The range of application of our actuators are docks, flood gates, water works and purification plants (see page 30)

Actuators for tilt trough adjustment:

These actuators adjust throughlike edging guides of all kinds, e.g. for pig iron or slag. High adjustment forces can be implemented at low speeds (see page 2).

Slab adjustment:

Actuators of this kind can be used for industrial furnaces, foundries et al., where high forces, strokes and velocity are needed.

Gate actuators:

Special designed actuators for the opening and closing of heavy gates with long strokes. Strokes of 7 m can be realized with only one motor and two stroke units (see page 31).

Window actuators:

With only one EUBA-actuator you are able to open and close columns of windows, greenhouses, hangars and farmhouses. Buildings with glass domes can be equipped with thermal sensors for an automatic control of the inside temperature.

Inquiry form

Antriebstechnik

Eller GmbH

Phone: +49 (0)2801- 7749920

Fax: +49 (0)2801- 7749925

Email: info@euba.de

Company:

Street:

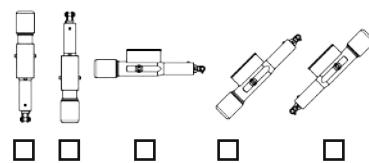
City:

Country:

Phone:

Fax:

Contact person:

Regulating power dynamical:**Pressure force:**kN**Traction force:**kN**static stress:**kN**Stroke:**mm**Velocity:**mm/s**Fitting position:****Operating frequency:**s/h**Cyclic duration factor:**% ED**Type of mounting:**

- | | | |
|--|--|--|
| <input type="checkbox"/> bracket | <input type="checkbox"/> pivot | <input type="checkbox"/> clevis and bold |
| <input type="checkbox"/> cardan joint | <input type="checkbox"/> flange | <input type="checkbox"/> swivel head |
| <input type="checkbox"/> angle ball+socket joint | <input type="checkbox"/> special fixing (on request) | |

Ambient conditions:

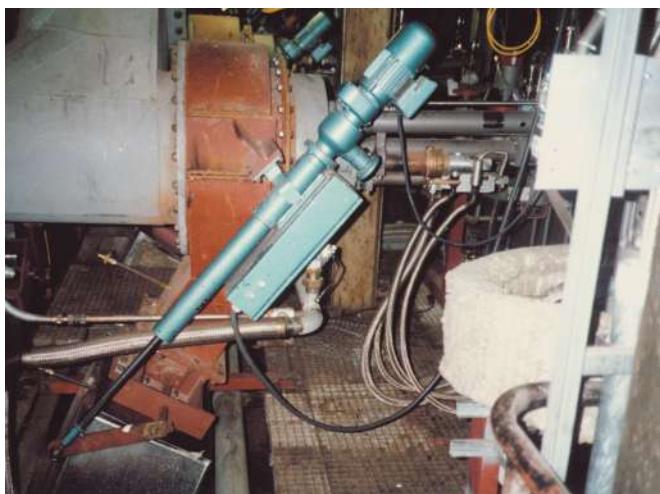
- | | | |
|--|--------------------------------------|---|
| <input type="checkbox"/> dusty | <input type="checkbox"/> outdoors | <input type="checkbox"/> high rust protection |
| <input type="checkbox"/> humid | <input type="checkbox"/> covered | <input type="checkbox"/> special coating |
| <input type="checkbox"/> tropical | <input type="checkbox"/> closed room | <input type="checkbox"/> bellow |
| <input type="checkbox"/> sea surrounding | meter above sea level | |

Connection voltage: 1ACVHz DCV
3AC / VHz**Type of protection:** IP- **Ambient temperature:**°C to°C
Insulation class:**Limit switches:**

- | | | |
|--|----------------------------|--|
| <input type="checkbox"/> 2 | <input type="checkbox"/> 4 | <input type="checkbox"/> 6 adjustable limit switches |
| <input type="checkbox"/> potentiometer | Ω | <input type="checkbox"/> special design (on request) |
| <input type="checkbox"/> electronic position 0/4 - 20 mA transmitter | | |

Special design:

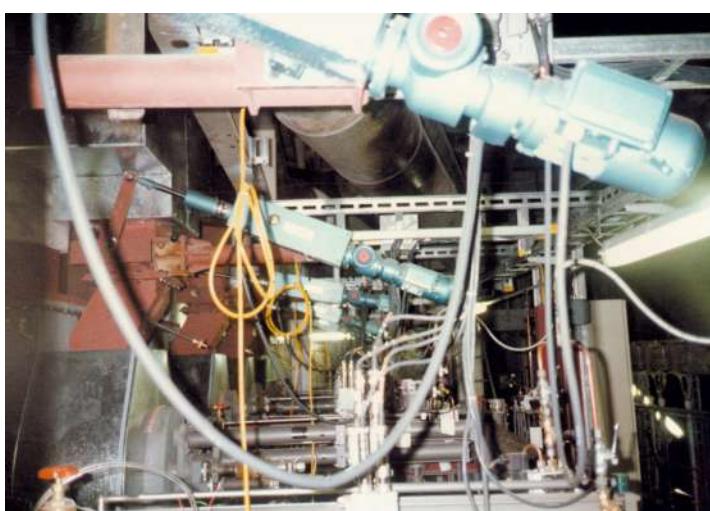
- | | | |
|--|--|---|
| <input type="checkbox"/> PTC thermistor | <input type="checkbox"/> brake motor | <input type="checkbox"/> anti-condensation heater |
| <input type="checkbox"/> switch box heater | <input type="checkbox"/> plug connection | |



Ash Removal
Power Plant



Burner Control
Power Plant



Burner Control
Power Plant

Damper Actuation
Sinter Plant



Oxygen Control
Power Plant



Cab Level Regulation
Lignite Excavator



Height Regulator
Sinter Plant



Flood Gate Actuator
Hydraulic Engineering



Water Level Regulator
Hydraulic Engineering



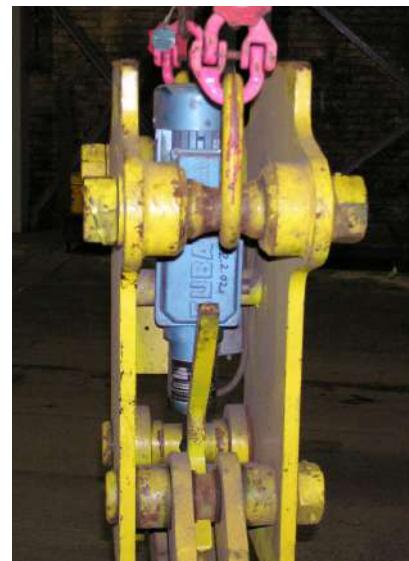
Water Level Regulator
Hydraulic Engineering



Flood Gate Actuator
Hydraulic Engineering



Angular Actuator
Special Design



Tong Adjustment
Crane System



Accessory Drive
Smallest Size



Selection of
Large and Small Actuators (Comparison)



Actuators with
Reversing Gearboxes



Actuator with
Rotary Drive



Feeding System
Zinc Plant



Gate Actuator
Industrial X-Ray Facility

EUBA - Nearly 60 years of Know-How in research, design and sale of electric actuators.

Custom-made solutions are our strength.

We are offering actuators from minimum-, up to mega actuators with forces from 0,5 daN up to 2.000 kN.
A qualified team of engineers will advise you for the case of actuating problems in situ.
This guarantees quality from the beginning.

Innovative research and permanent quality control during the manufacturing establishes standards.
For your safety naturally no actuators leaves the factory before extensive examination.

Become profitable from our worldwide "Know-How".

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E-mail: heck@heckbv.nl

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E-mail: dkolb@ceramprotec.com

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