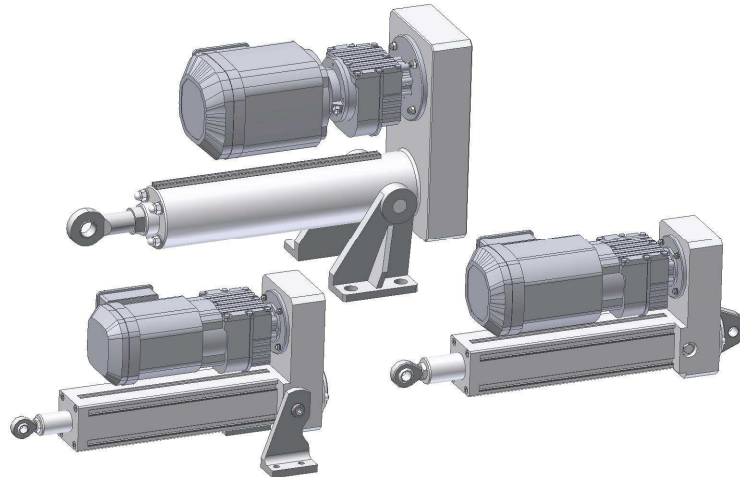


Series X



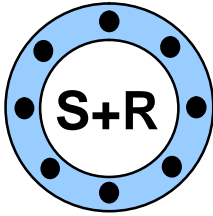
The main feature of the "X" series is the use of motors that, in the versions gear, servo or stepping motor, drive the spindle via a toothed belt or a chain. This arrangement allows a very compact installation dimension.

Two design versions are available. A quadratic aluminium profile is used for the design sizes KV/TV – 20/30 XP, all other design sizes have a round housing.

Different mounting options can be supplied. By default, the round housing design are offered with a rod end bearing on the piston rod and rotary bearing console. The types with a quadratic profile tube can be supplied with an eye or a rotary bearing console. Customer specific fixing points are also possible as an alternative.

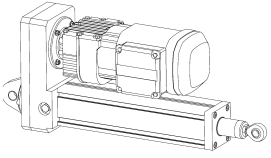
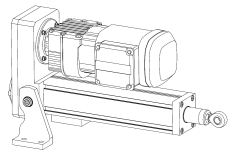
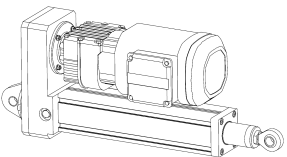
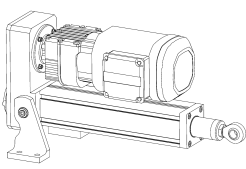
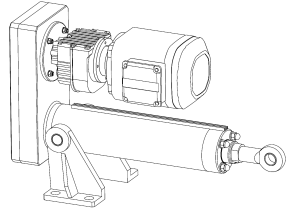
This cylinder has been designed for the difficult operation and ambient conditions in the industry. The lifting cylinders are fully encapsulated and can be mounted in any installation position outdoors as well as in rooms with a high degree of soiling or in areas with potentially explosive atmosphere. The switching is generally carried out using an adjustable limit switch or, upon request, using an overload coupling. The attachment of a sender or potentiometer is also possible as well as the delivery with positioning or synchronizer control. The cylinders are practically maintenance-free.

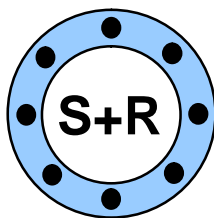
Adjustment force	up to 100 kN
Velocity	up to 500 mm/s
Adjustment path	up to 3,000 mm
Duty cycle	up to 100%
Protection class	IP 65 or higher
Options	Limit switch Overload couplings Sender systems Controls Ex version Stainless steel version



Type overview X Series

Standard product range

			Befestigung: Gelenkauge - Auge	Befestigung: Gelenkauge - Drehlagerfuß
Type designation:	KV-20 XP	TV-20 XP		
Spindle version:	Ball screw thread	Trapezoidal thread		
Adjustment force:	5,000 N to 15,000 N	10,000 N to 15,000 N		
Velocity:	15 mm/s to 274 mm/s	5 mm/s to 23 mm/s		
Stroke length:	10 mm to 1,500 mm	10 mm to 1,500 mm		
Duty cycle:	100 %	25 %		
Protection class:	IP 65 or higher	IP 65 or higher		
Type designation:	KV-30 XP	TV-30 XP		
Spindle version:	Ball screw thread	Trapezoidal thread		
Adjustment force:	15,000 N to 25,000 N	20,000 N to 25,000 N		
Velocity:	15 mm/s to 334 mm/s	5 mm/s to 25 mm/s		
Stroke length:	10 mm to 1,500 mm	10 mm to 1,500 mm		
Duty cycle:	100 %	25 %		
Protection class:	IP 65 or higher	IP 65 or higher		
Type designation:	KV-50 XP	TV-50 XP	<p>On request</p>	
Spindle version:	Ball screw thread	Trapezoidal thread		
Adjustment force:	22,000 N to 50,000 N	30,000 N to 50,000 N		
Velocity:	15 mm/s to 93 mm/s	12 mm/s to 40 mm/s		
Stroke length:	10 mm to 1,500 mm	10 mm to 1,500 mm		
Duty cycle:	100 %	25 %		
Protection class:	IP 65 or higher	IP 65 or higher		



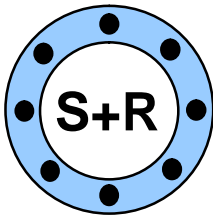
Data sheet X Series

with ball screw thread

Duty cycle 100 %, no self-locking

The selection of other forces and velocities can be supplied.

Type	Spindle	Adjustment force	Velocity	Motor Power	Speed
KV-20 XP	K 25 x 25	5,000 N	274 mm / s	RF27DT90L2 2.2 kW	658 rpm
	K 25 x 10	10,000 N	93 mm / s	RF27DT90S2 1.5 kW	560 rpm
			52 mm / s	RF17DRS80S4 0.75 kW	313 rpm
	K 25 x 5	15,000 N	25 mm / s	RF17DRS71M4 0.55 kW	306 rpm
			15 mm / s	RF17DRS71S4 0.37 kW	183 rpm
	KV- 30 XP	K32 x 40	5,000 N	334 mm / s	RF27DV100M2 3.0 kW
K 32 x 10		15,000 N	94 mm / s	RF27DT90L2 2.2 kW	562 rpm
			47 mm / s	RF27DRS80M4 1.1 kW	282 rpm
		25,000 N	23 mm / s	RF17DRS80S4 0.75 kW	139 rpm
15 mm / s			RF17DRS71M4 0.55 kW	87 rpm	
K 32 x 5		17,000 N	15 mm / s	RF17DRS71S4 0.37 kW	183 rpm



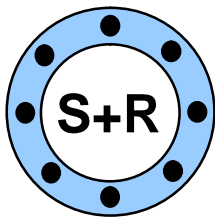
Data sheet X Series

with ball screw thread

Duty cycle 100 %, no self-locking

The selection of other forces and velocities can be supplied.

Type	Spindle	Adjustment force	Velocity	Motor Power	Speed
KV-50 XE	K 50 x 10	22,000 N	93 mm / s	RF27DV100M2 3.0 kW	560 rpm
		35,000 N	45 mm / s	RF27DT90L2 2.2 kW	277 rpm
		50,000 N	23 mm / s	RF27DRS90M4 1.5 kW	138 rpm
			15 mm / s	RF27DRS80M4 1.1 kW	90 rpm



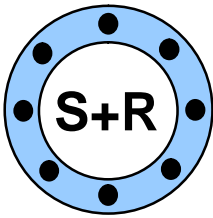
Data sheet X Series

with trapezoidal screw thread

Duty cycle < 40 %

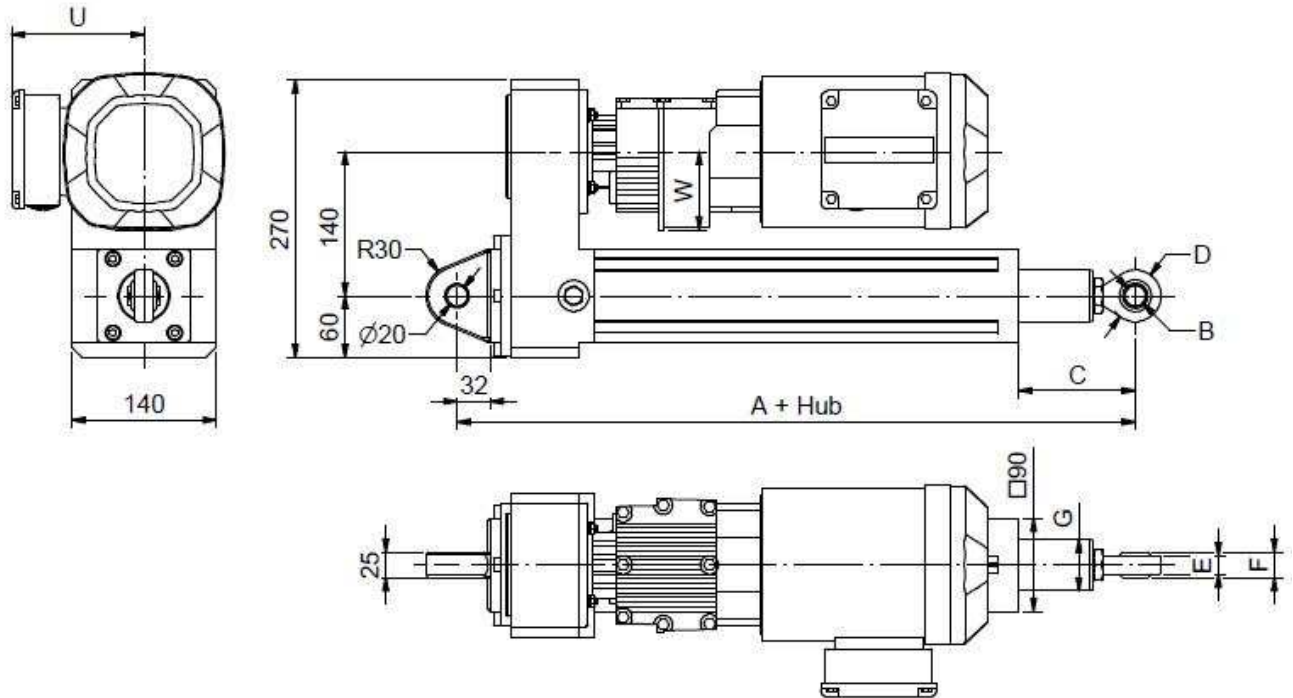
The selection of other forces and velocities can be supplied.

Type	Spindle	Adjustment force	Velocity	Motor Power	Speed
TV-20 XP	Tr 26 x 5	10,000 N	23 mm / s	RF17DRS80S4 0.75 kW	277 rpm
		12,000 N	10 mm / s	RF17DRS71S4 0.37 kW	121 rpm
		15,000 N	5 mm / s	RF17DR63L4 0.25 kW	66 rpm
TV- 30 XP	Tr 36 x 6	20,000 N	25 mm / s	RF27DRS90M4 1.5 kW	250 rpm
		25,000 N	10 mm / s	RF17DRS80S4 0.75 kW	102 rpm
			5 mm / s	RF17DRS71M4 0.37 kW	49 rpm
TV-50 XE	Tr 40 x 7	30,000 N	25 mm / s	RF27DRS90L4 2.2 kW	212 rpm
		30,000 N	12 mm / s	RF27DRS80M4 1.1 kW	106 rpm
	Tr 48 x 8	30,000 N	40 mm / s	RF47DRS100L4 4.0 kW	300 rpm
		50,000 N	20 mm / s	RF37DRS100M4 3.0 kW	148 rpm
			12 mm / s	RF37DRS90L4 2.2 kW	90 rpm



Dimensional sheet XP Series

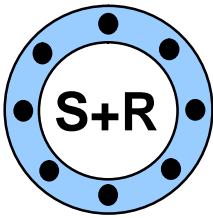
Version: rod end bearing eye
 Standard product range



Retracted installation dimension: A + Stroke
 Extracted installation dimension: A + 2xStroke, C + Stroke

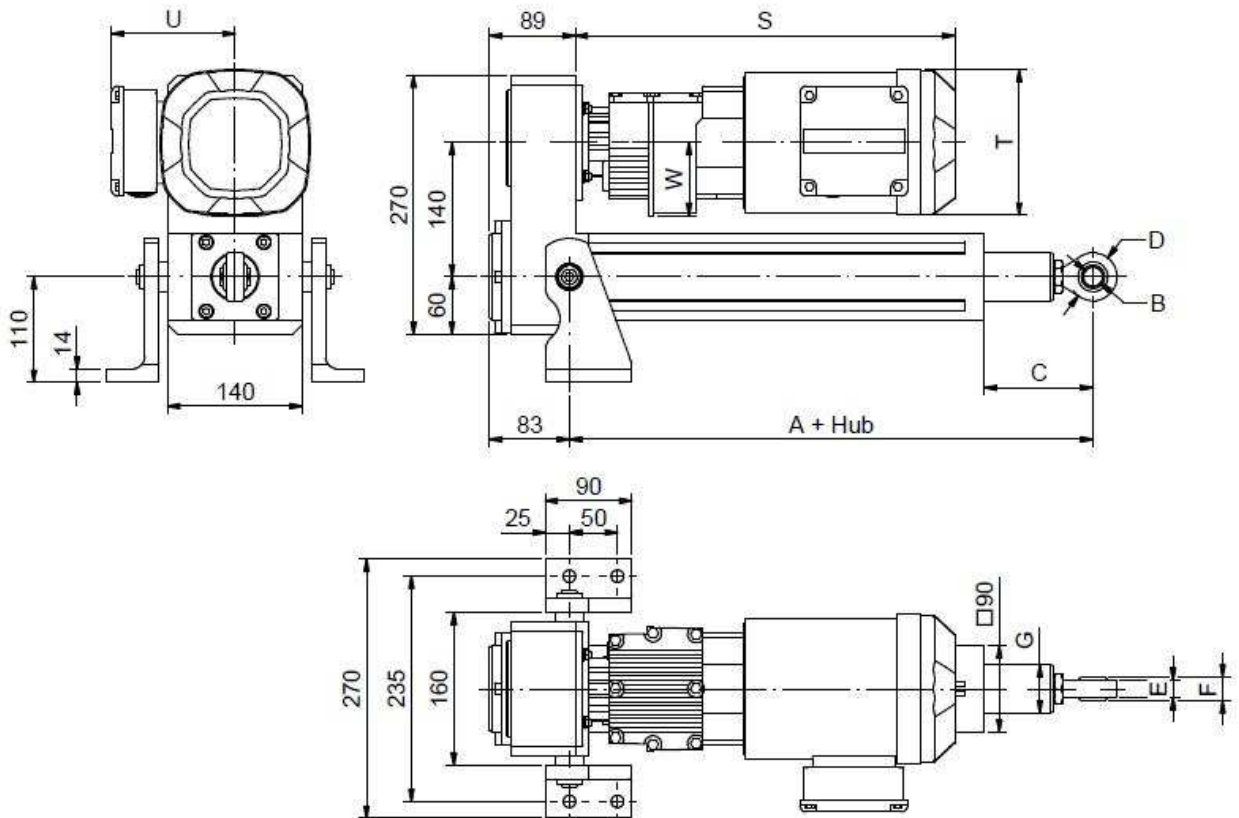
Type	A	B	C	D	E	F	G
TV-20XP	328	Ø16	94	42	15	21	Ø40
KV-20XP	378	Ø16	78	42	15	21	Ø40
TV-30XP	358	Ø20	113	50	18	25	Ø50
KV-30XP	410	Ø20	86	50	18	25	Ø50

Motor	S	T	U	W
RF07 DT56	269	Ø109	87	68
RF07 DT56 Brake	305			
RF07 DR63	300	□132	105	
RF07 DR63 Brake	355			
RF17 DR63	324	□132	105	76
RF17 DR63 Brake	379			
RF17 DRS71	360	□139	119	
RF17 DRS71 Brake	428		129	
RF17 DRS80	360	□156	128	
RF17 DRS80 Brake	428		139	



Dimensional sheet XP Series

Version: rod end bearing - rotary bearing console
Standard product range

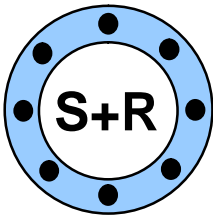


Retracted installation dimension: A + Stroke

Extracted installation dimension: A + 2xStroke, C + Stroke

Type	A	B	C	D	E	F	G
TV-20XP	215	Ø16	94	42	15	21	Ø40
KV-20XP	265	Ø16	78	42	15	21	Ø40
TV-30XP	245	Ø20	113	50	18	25	Ø50
KV-30XP	294	Ø20	86	50	18	25	Ø50

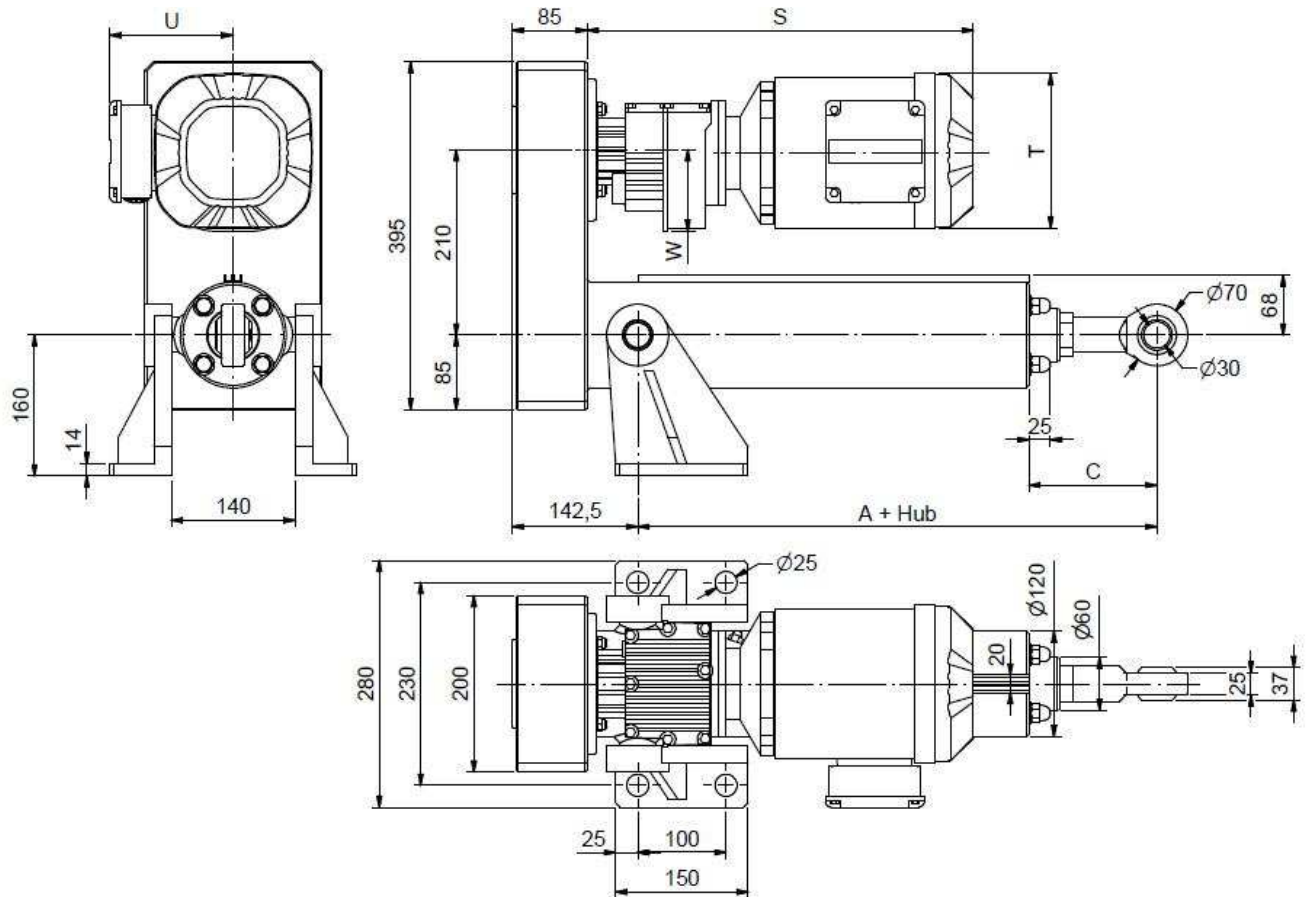
Motor	S	T	U	W
RF07 DT56	269	Ø109	87	68
RF07 DT56 Brake	305			
RF07 DR63	300	□132	105	
RF07 DR63 Brake	355			
RF17 DR63	324	□132	105	76
RF17 DR63 Brake	379			
RF17 DRS71	360	□139	119	
RF17 DRS71 Brake	428		129	
RF17 DRS80	360	□156	128	
RF17 DRS80 Brake	428		139	



Dimensional sheet XE Series

Version: rod end bearing - rotary bearing console

Standard product range



Retracted installation dimension: A + Stroke

Extracted installation dimension: A + 2xStroke, C + Stroke

Type	A	C
TV-50XE	385	135
KV-50XE	417	135

Motor	S	T	U	W
RF27DRS80	417	□156	128	92
RF27 DRS80 Brake	498		139	
RF27 DRS90	440	□179	140	
RF27 DRS90 Brake	534		150	
RF37 DRS90	448	□179	140	94
RF37 DRS90 Brake	542		150	
RF37 DRS100	478	□197	158	
RF37 DRS100 Brake	572			
RF47 DRS100	517			
RF47 DRS100 Brake	611		118	