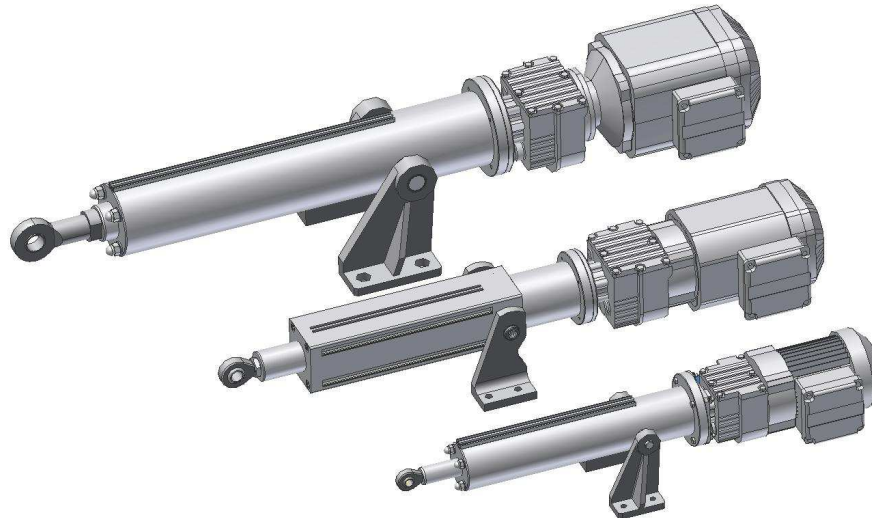


Series A

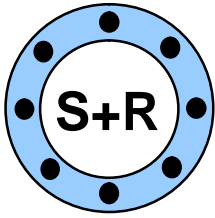


The main feature of the "A" series is the use of motors that, in the versions gear, servo or stepping motor drive, are mounted to the cylinder in an axial direction via the coupling. Two design versions are available. A quadratic aluminium profile is used for the design sizes KV/TV – 20/30 AP, all other design sizes have a round housing.

Different mounting options can be supplied. By default, a rod end bearing on the piston rod and rotary bearing console are offered. 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.

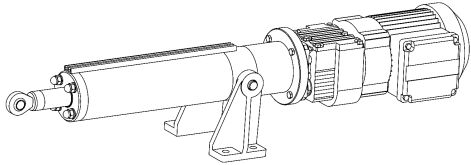
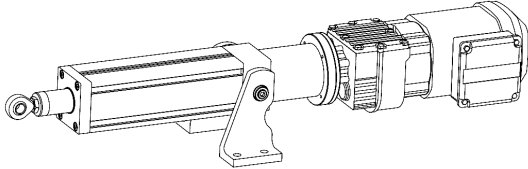
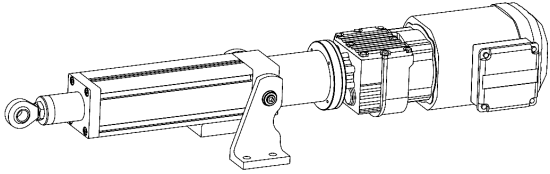
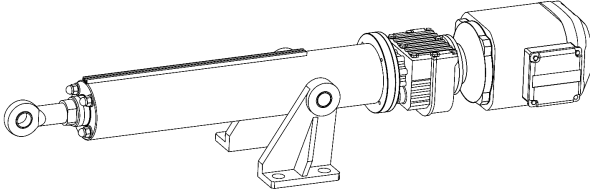
Adjustment force	up to 500 kN
Velocity	up to 500 mm/s
Adjustment path	up to 3,000 mm
Duty cycle	up to 100%
Protection class	IP 65 or higher
Options	Limit switch Overload couplings Sender systems Controls Ex version Stainless steel version

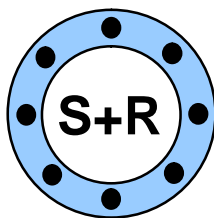


Type overview A Series

Standard product range

Fixing:
 Rod end bearing - pivot bearing foot

<p>Type designation: KV-10 AE TV-10 AE</p> <p>Spindle version: Ball screw thread Trapezoidal thread Adjustment force: 3,000 N to 5,000 N 5,000 N to 7,000 N Velocity: 15 mm/s to 56 mm/s 5 mm/s to 24 mm/s Stroke length: 10 mm to 1,000 mm 10 mm to 1,000 mm Duty cycle: 100 % 40 % Protection class: IP 65 or higher IP 65 or higher</p>	
<p>Type designation: KV-20 AP TV-20 AP</p> <p>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 93 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 % 40 % Protection class: IP 65 or higher IP 65 or higher</p>	
<p>Type designation: KV-30 AP TV-30 AP</p> <p>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 % 40 % Protection class: IP 65 or higher IP 65 or higher</p>	
<p>Type designation: KV-50 AE TV-50 AE</p> <p>Spindle version: Ball screw thread Trapezoidal thread Adjustment force: 22. 00 N to 50,000 N 30,000 N to 50,000 N Velocity: 15 mm/s to 93 mm/s 12 mm/s to 25 mm/s Stroke length: 10 mm to 1,500 mm 10 mm to 1,500 mm Duty cycle: 100 % 40 % Protection class: IP 65 or higher IP 65 or higher</p>	



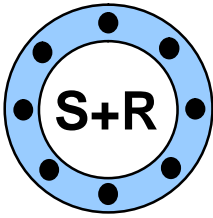
Data sheet A Series

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-10 AE	K 20 x 5	3,000 N	56 mm / s	RF07 DR63M2 0.25 kW	674 rpm
		4,000 N	28 mm / s	RF07 DR63M4 0.18 kW	334 rpm
		5,000 N	15 mm / s	RF07 DT56L4 0.12 kW	174 rpm
KV-20 AP	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 AP	K32 x 40	5,000 N	334 mm / s	RF27DV100M2 3.0 kW	500 rpm
	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



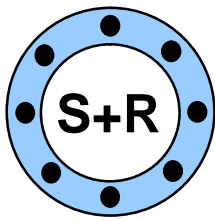
Data sheet A Series

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 AE	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



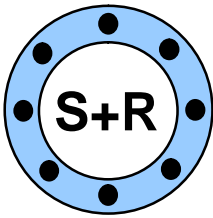
Data sheet A Series

with trapezoidal screw thread

Duty cycle < 40 %

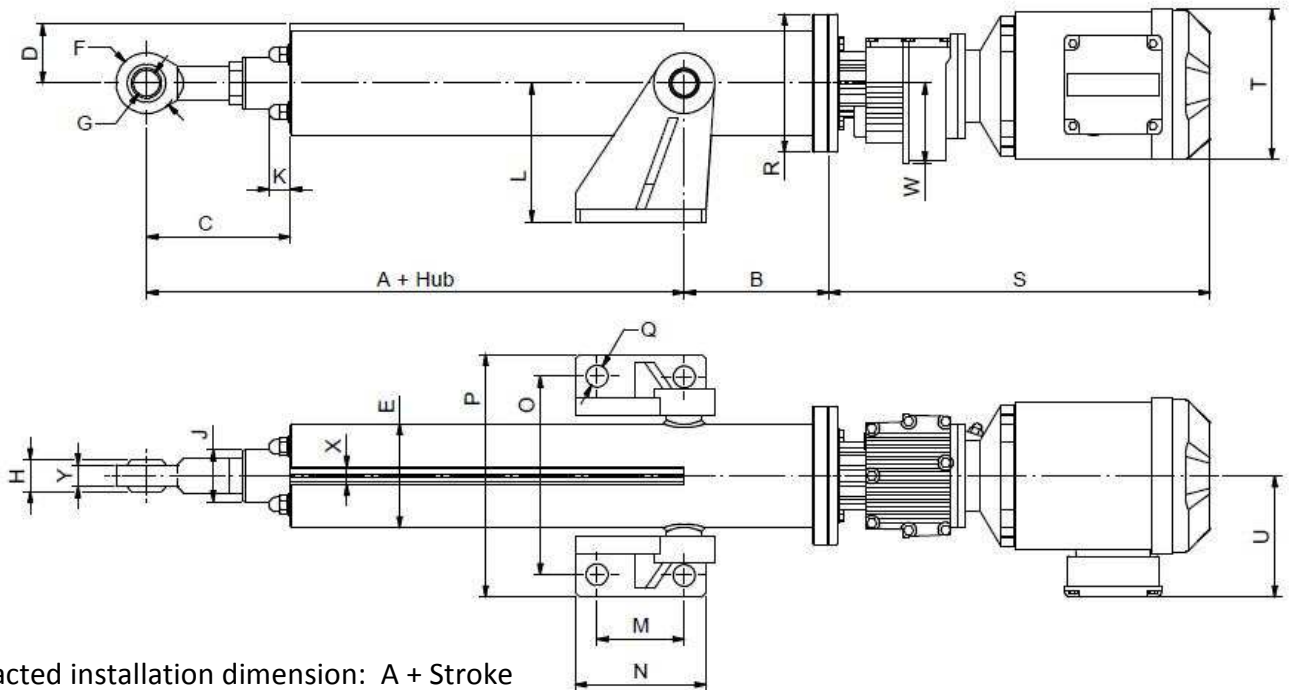
A selection of other forces and velocities can be supplied.

Type	Spindle	Adjustment force	Velocity	Motor Power	Speed
TV-10 AE	Tr 20 x 4	5,000 N	24 mm / s	RF17 DRS71S4 0.37 kW	360 rpm
		6,000 N	10 mm / s	RF07 DR63M4 0.18 kW	146 rpm
		7,000 N	5 mm / s	RF07 DT56L4 0.12 kW	78 rpm
TV-20 AP	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 AP	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 AE	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 A 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	H	J	K	L	M	N	O	P	Q	R	X	Y
TV-10AE	189	104	89	48	Ø80	36	Ø14	19	Ø30	17	110	50	80	149	184	11	Ø120	20	13.5
KV-10AE	238	104	86	48	Ø80	36	Ø14	19	Ø30	17	110	50	80	149	184	11	Ø120	20	13.5
TV-20AP	215	147	94	/	□90	42	Ø16	21	Ø40	/	110	50	90	193	228	13	Ø120	/	15
KV-20AP	265	147	78	/	□90	42	Ø16	21	Ø40	/	110	50	90	193	228	13	Ø120	/	15
TV-30AP	245	147	113	/	□90	50	Ø20	25	Ø50	/	110	50	90	193	228	13	Ø120	/	18
KV-30AP	294	147	86	/	□90	50	Ø20	25	Ø50	/	110	50	90	193	228	13	Ø120	/	18
TV-50AE	375	166*	135	68	Ø120	70	Ø30	37	Ø60	25	160	100	150	230	280	25	Ø160	20	25
KV-50AE	417	166*	135	68	Ø120	70	Ø30	37	Ø60	25	160	100	150	230	280	25	Ø160	20	25

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	

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

* Dimension B with gear RF47 is... = 176 mm