

Electro-Thrust cylinder with IP65 rating

New addition to the Electro-Thrust range

As an addition to the successful ET range of electric cylinders, Parker Hannifin's Electro-mechanical Division has introduced an IP65 rated version for the more rigorous applications. Available as a standard option in ET32, 50, 80 and 100 sizes, the IP65 version is particularly suitable for washdown, external and contaminated environments in which the standard version could suffer long-term deterioration.

The outside of the cylinder is treated with a cold-curing epoxy coating which is resistant to a wide range of chemicals, including the hydrogen peroxide solution frequently used as a washdown in food processing. The cylinder rod and all fixings are manufactured from stainless steel; rod end attachments as well as cylinder mounting fixtures are also available in stainless steel. All mechanical joints are sealed using a combination of silicone plus gaskets .

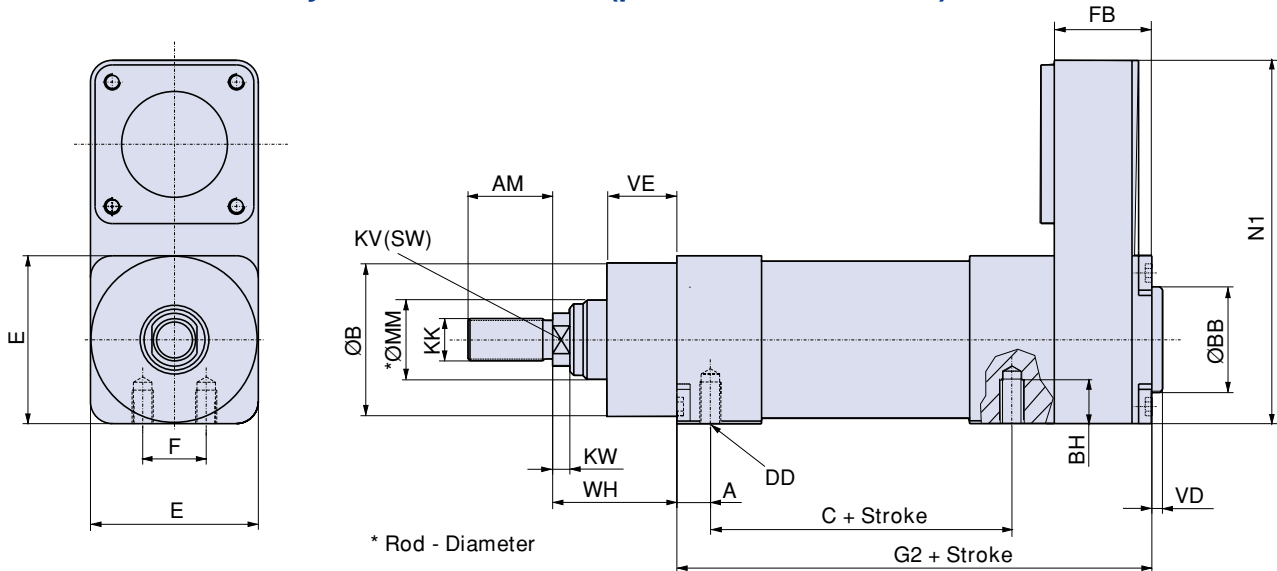
An extension to the front of the cylinder houses a special double seal, with both inner and outer seals incorporating spring-loaded sealing elements. For applications in which the rod may be exposed to solid material such as mud, dirt or ice, a metal scraper seal may be fitted in place of the outer seal. The addition of the front seal extension means that the foot mounting, front flange and guide module options are not available on this version. The seal extension has a minimal effect on the zero-stroke length adder and dimensions will be found overleaf.

Both stepper and servo motors are available with IP65 ratings. They may be installed in either parallel-mounted or in-line configurations. The existing standard home and limit sensors may still be used as they already meet IP65 specifications. Apart from a small increase in no-load torque due to additional seal friction, the performance characteristics are unaffected by the IP65 rating.



- **IP65 rating available for all four sizes - 32, 50, 80 & 100**
- **Epoxy-coated cylinder body**
- **High performance dual position rod seal**
- **Optional metal scraper seal**
- **All external fixings in stainless steel**
- **Optional stainless steel rod ends & cylinder mountings**
- **Uses existing home & limit sensors**
- **Parallel or in-line motor mounting options retained**
- **Stroke length up to 1500mm**
- **Ballscrew pitches from 5-40mm/rev**
- **Thrust forces in excess of 20,000N**
- **Speeds up to 2m/s**
- **High mechanical efficiency, typically 90%**
- **Available on short delivery**

Electro-Thrust electric cylinder dimensions (parallel drive version)

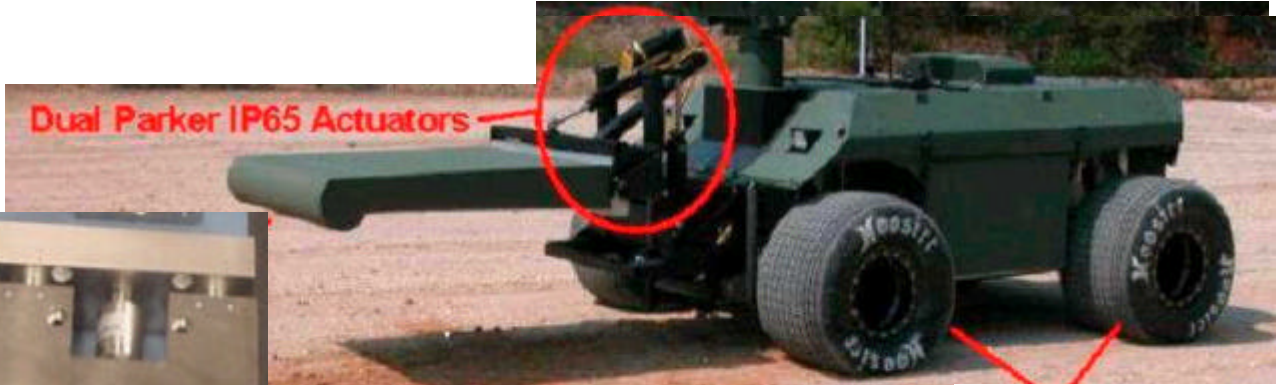


General dimensions (size)

Cylinder	A	AM	ØB	BH	E	F	KK	KV	ØMM	VE	WH	KW	N1	FB	VD	ØBB
ET32	14	22	46	9	46.5	16	M10	10 x1.25	18	40	53	5	106.4	37	4	30
ET50	16	32	62	12.7	63.5	24	M16	17 x1.5	25	43	64	6.5	139.4	39	4	40
ET80	21	40	68	17.5	95.3	30	M20	22 x1.5	35	55	81	10	191.3	57	5	45
ET100	27.5	54	89	24	114	50	M27	27 x2	50	60	91	13	254	79	4	55

'Zero stroke' dimensions

Cylinder Type	ET32		ET50			ET80			ET100		
	M05	M10	M05	M10	M16	M05	M10	M25	M05	M10	M40
C	112.5	112.5	128.4	131.4	135.4	129.5	148.1	154.9	201.5	221.3	249.4
G1	140.5	140.5	160.4	163.4	167.4	173.0	191.6	189.4	259.7	279.5	307.6
G2	176.7	176.7	199.5	202.5	206.5	228.3	246.9	253.7	335.5	355.3	383.4



Parker's ET series electric cylinders are available with stroke lengths of up to 1.5 metres, provide smooth velocity control at speeds up to 2 metres/second, and offer very high positioning repeatability — typically to within $\pm 0.013\text{mm}$. Smooth operation across the entire speed range is ensured through the use of a high quality C7 class ballscrew drive, which is available with pitches from 5 to 40mm/rev. Each actuator can be supplied for in-line, parallel or reverse-parallel motor mounting, and the parallel-mounting versions offer a choice of several different drive ratios to facilitate applications matching. All versions of ET electric cylinder have a high mechanical efficiency, of typically 90%, enabling maximum thrust forces to be achieved for a given size of motor.

For customers seeking complete actuator solutions, Parker offers a series of compatible IP65 rated servo and stepper motors, as well as a comprehensive range of high-performance drives, controllers and indexers. The company also supplies IP67 rated Hall-effect sensors and reed switches for home and limit detection, which simply slot into grooves that run the full length of the electric cylinder's housing.

All ET series electric cylinders are designed specifically to provide a long operational life with minimal maintenance; a unique anti-rotate mechanism virtually eliminates cylinder rod end-play and noise, whilst the front screw-support and extra length rod-support bearings withstand side loads and prevent screw whipping, vibration and run-out. Standard cylinders are rated for operation over a temperature range of 0 to 60 deg. C, with a 100% duty cycle.

To simplify the task of choosing the best cylinder for a particular application, which can involve a considerable number of thrust and power calculations, Contact your local distributor or the Parker Electromechanical Department at:

