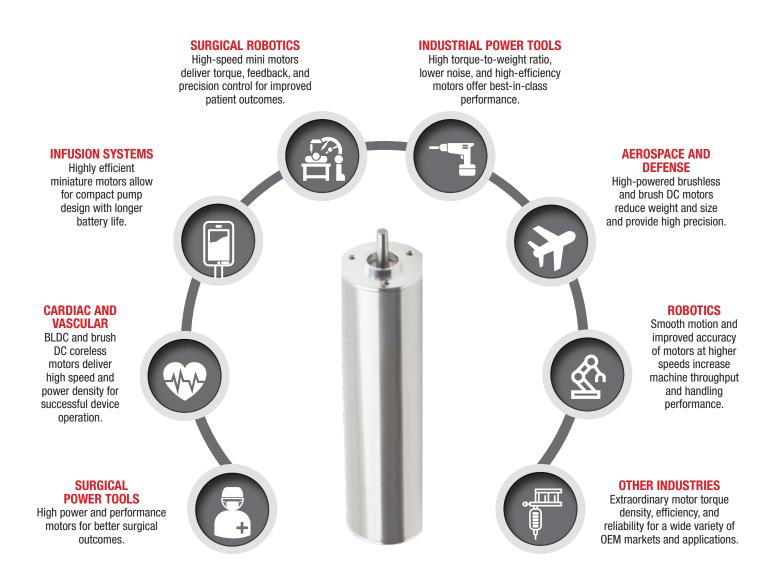
Miniature Motion Solutions for Performance-Critical Applications



**Innovative motion** technologies and **custom engineering** services that ensure a perfect fit for your individual application.



We leverage our miniature motor technologies and **application know-how** to serve a spectrum of motion control applications





# Compact, Powerful Motors for Your Application

At Portescap, customization is standard. Choose the **motor technology** that meets your needs for speed, torque, size, efficiency, and acceleration. And rely on our advanced **custom engineering** to get the exact windings, magnet types, commutation technologies, shafts, leads, and other features you need for an **optimized solution**.



#### **Brushless Slotted DC**

Frame Size: 12.7 to 50.8 mm\* Speed: up to 100,000 rpm Torque: up to 6,526.6 mNm \*upon request



#### **Brush DC Coreless**

Frame Size: 8 to 35 mm Speed: up to 16,000 rpm Torque: up to 160 mNm



### **Digital Linear Actuator**

Frame Size: 20 to 57 mm Speed: up to 500 full step/s Force: up to 125 N



#### **Brushless Flat DC**

Frame Size: 20 to 90 mm Speed: up to 30,000 rpm Torque: up to 1Nm



# **Stepper Disc Magnet**

Frame Size: 10\* to 74 mm Speed: up to 10,000 rpm Torque: up to 325 mNm \*upon request



#### **Gearheads**

Frame Size: 8\* to 40 mm Speed: up to 10,000 rpm Torque: up to 10 Nm \*upon request



#### **Brushless Slotless DC**

Frame Size: 16 to 35 mm Speed: up to 70,000 rpm Torque: up to 225 mNm



# **Stepper Can Stack**

Frame Size: 15 to 60 mm Speed: up to 1,000 rpm Torque: up to 300 mNm



#### **Encoders**

Frame Size: 8\* to 30 mm Technology: Magnetic, Optical Line Count: 1 to 1024 \*upon request

# **Choose the Right Technology for Your Application**

	BLDC Slotted	BLDC Flat	BLDC Slotless	Brush DC	Disc Magnet	Can Stack	Digital Linear Actuator
Efficiency/battery life	++	+++	+++	++++	+	+	+
Motor lifetime	++++	++++	++++	++	++++	+++	++
Autoclavability	++++			+			
Ability to withstand harsh environments	++++	+++	+++	++	++	+	+
High power/weight ratio	++++	++++	++++	+++	+++	+	+
High motor acceleration	++	++	++	+++	++++		
Open loop positioning	+	+	+		++++	++	+++
Simple control	+	+	+	++++	++	++	++
Low noise	+++	+++	++++	+++	++	++	+
Ease of achieving linear motion							++++
Max rated continuous torque	++++	++++	++++	+++	++++	+	
Max speed	++++	+++	++++	+++	++	+	+

