

NEWSPACE MARKET · SECTOR CATALOGUE

Reaction Wheels

Every unit we list in this sector — specifications, manufacturers and where to ask for a quote. Compiled from the live NewSpace Market catalogue.

98

PRODUCTS

33

MANUFACTURERS

16

COUNTRIES

43

WITH DATASHEETS

newspacemarket.com/catalogues/reaction-wheels/

as of 2 September 2026

What is inside

This catalogue lists **98 reaction wheels products** offered by **33 manufacturers** across **16 countries**. Of those, 43 carry a manufacturer datasheet and 3 publish a price; the rest are quoted on request — normal in this market, where configuration drives cost.

Entries are grouped alphabetically by manufacturer. Every product links back to its page on [newspacemarket.com](#), where you will find the full specification, the datasheet and a quote form that reaches the manufacturer directly.

Compiled 2 September 2026 from the live catalogue. Specifications are as published by the manufacturers; we normalise units but do not re-measure. Where a figure looked implausible it was left out rather than guessed.

Manufacturers by country

United States 4	Germany 4	France 3	South Africa 3	Sweden 2	India 2	Russia 2
Denmark 2	Canada 2	China 2	Belgium 1	Japan 1	Lithuania 1	Czech Republic 1
Netherlands 1	Taiwan 1					

All products at a glance

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
0.3 N·m·s Reaction Wheel	MinoSpace	China	–	on request
1 Nms GEO Reaction Wheel	Sinclair Interplanetary (Rocket Lab)	Canada	Angular momentum capacity: 1 Nms	on request
1 Nms Microsatellite Reaction Wheel	Sinclair Interplanetary (Rocket Lab)	Canada	Angular momentum capacity: 1 Nms	on request
15 mNms Momentum Wheel	Shenzhen MagicCubeSat Technology (MCS)	China	Angular momentum: 15 mNms	on request
30 mNms Nanosatellite Reaction Wheel	Sinclair Interplanetary (Rocket Lab)	Canada	Angular momentum capacity: 30 mNms	on request
340 mNms Momentum Wheel	Shenzhen MagicCubeSat Technology (MCS)	China	Angular momentum: 340 mNms	on request
400 mNms Microsatellite Reaction Wheel	Sinclair Interplanetary (Rocket Lab)	Canada	Angular momentum capacity: 400 mNms	on request
50 mNms Momentum Wheel	Shenzhen MagicCubeSat Technology (MCS)	China	Angular momentum: 50 mNms	on request
AAC Clyde Space RW210 Reaction Wheel	AAC Clyde Space	Sweden	Total momentum storage: ±1.5, ±3.0, or ±6.0 mN.m.s	on request
ADCS for SmallSats	Tensor Tech	Taiwan	Voltage: 28 V	on request
Agile Actuators (CMG 15-45S, 40-60S, 75-75S)	Airbus Defence and Space	France	Satellite mass range: 500 kg to 3 tonnes	on request
ASPINA Reaction Wheels for Small Space Satellites	ASPINA	Japan	Item: Developing specification	on request
CMG for SmallSats	Tensor Tech	Taiwan	Momentum: 1 Nms	on request
Control Moment Gyroscopes	Blue Canyon Technologies	United States	CMG-8 momentum: 8 Nms	on request
Control Moment Gyroscopes (CMG 15-45S / 40-60S / 75-75S)	Airbus Defence and Space	France	Models: CMG 15-45S, CMG 40-60S, CMG 75-75S	on request
CubeSat Reaction Wheels Control System (SatBus 4RW)	NanoAvionics	Lithuania	CUBESAT reaction wheel starting price (RW0): € 4,100	from €4 100
CubeSat Reaction Wheels Module SXC-FW4-02	SPUTNIX	Russia	Dimensions: 97.5 × 97.5 × 80 mm	on request
Flywheel Aerospace Momentum Storage Systems	Flywheel Aerospace	India	Technology: Flywheel momentum/energy storage	on request
HR04, HC7 & HC9 Reaction Wheel Assemblies	Honeywell Aerospace	–	Gen 1 qualification (HC7 and HC9): Completed in June 2021	on request
JANSFER Reaction Wheel Controller	EREMS	France	Function: Reaction wheel driving and monitoring	on request
Kinetic Moment Reset System	Glavkosmos	Russia	Year of release: 2005	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
MAI-400 Reaction Wheel	Adcole Space (Redwire)	United States	Availability: 90 days	on request
MicroCMG	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 8.0 Nms	on request
Microsat Reaction Wheel	SSBV Aerospace & Technology	Netherlands	Max wheel torque: 20 mNm	on request
Microsatellite Magnetometer SX-SBOX-MAG-01	SPUTNIX	Russia	Dimensions: 54 × 52 × 16 mm	on request
Microsatellite Reaction Wheel SX-SBOX-RWH-50-2.0-01	SPUTNIX	Russia	Dimensions: 160 × 160 × 80 mm	on request
MicroWheel 1000	Microsat Systems Canada	Canada	Momentum: 1.1 Nms	on request
MicroWheel 200	Microsat Systems Canada	Canada	Momentum: 0.18 Nms	on request
Momentum Control Systems	Honeywell Aerospace	–	Rotor momentum: 50 ft-lb-sec	on request
NanoDock ADCS-6	GomSpace	Denmark	Operating temperature: -40 °C to +85 °C	on request
NanoTorque GSW-600	GomSpace	Denmark	Torque: 2 mNm	on request
NanoTorque GSW-600 Reaction Wheels	GomSpace	Denmark	Configuration: 4-wheel pyramid assembly	on request
NRWA Reaction Wheels	NewSpace Systems (NSS)	South Africa	Models: NRWA-T065, NRWA-T2, NRWA-T6, NRWA-T25	on request
Reaction Wheel	Pyxis Space	Germany	Dimensions: 32 × 32 × 32 mm ³	\$6 000
Reaction wheel	SPUTNIX	Russia	Dimensions: 160 x 160 x 80 (without fasteners) mm	on request
Reaction Wheel	Space Inventor ApS	Denmark	Msrp: €55,000	\$55 000
Reaction wheel	ASPINA	Japan	Item: Developing specification	on request
Reaction Wheel (CW40K) (4Nms)	CubeSpace ADCS	South Africa	Manufacturer: CubeSpace	on request
Reaction Wheel CW0017	CubeSpace ADCS	South Africa	Manufacturer: CubeSpace	on request
Reaction Wheel CW0057	CubeSpace ADCS	South Africa	Manufacturer: CubeSpace	on request
Reaction Wheel CW0162	CubeSpace ADCS	South Africa	Manufacturer: CubeSpace	on request
Reaction Wheel CW0500	CubeSpace ADCS	South Africa	Manufacturer: CubeSpace	on request
Reaction Wheel CW10k (1 Nms)	CubeSpace ADCS	South Africa	Manufacturer: CubeSpace	on request
Reaction Wheel CW1200 (0.12 Nms)	CubeSpace ADCS	South Africa	Manufacturer: CubeSpace	on request
Reaction Wheel CW2500 (0.25 Nms)	CubeSpace ADCS	South Africa	Manufacturer: CubeSpace	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Reaction Wheel CW5000 (0.5 Nms)	CubeSpace ADCS	South Africa	Manufacturer: CubeSpace	on request
Reaction Wheel RW1	EXA (Astro-und Feinwerktechnik)	Germany	Parameter: Type A	on request
Reaction Wheel RW100	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 0.4 Nms @ nominal speed	on request
Reaction Wheel RW150	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 1.0 Nms	on request
Reaction Wheel RW1500	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 25.0 Nms @ nominal speed	on request
Reaction Wheel RW25	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 30 mNms	on request
Reaction Wheel RW250	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 4.0 Nms @ nominal speed	on request
Reaction Wheel RW3000	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 50.0 Nms @ nominal speed	on request
Reaction Wheel RW35	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 0.1 Nms	on request
Reaction Wheel RW6000	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 100.0 Nms @ nominal speed	on request
Reaction Wheel RW800	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 12.0 Nms	on request
Reaction Wheel RW90	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 0.35 Nms @7800 rpm	on request
Reaction Wheel RWT250	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 4.0 Nms @ nominal speed	on request
Reaction Wheels	Blue Canyon Technologies	United States	Torque: 0.015 Nms	on request
Reaction Wheels	Sinclair Interplanetary (Rocket Lab)	Canada	1 nms microsatellite wheel suitability: 100 kg Earth-observation missions	on request
Reaction Wheels	Comat	France	Satellite compatibility (Light Series): Optimised for plateforms from 10 to...	on request
Reaction Wheels	Gimbal Space	United States	Configuration: Custom solutions available	on request
Reaction Wheels	Blue Canyon Technologies	United States	Rwp015 max momentum: 0.015 Nms	on request
Reaction Wheels (RW25)	Serenum Space	Czech Republic	Motor: BLDC with 3 integrated Hall sensors	on request
Reaction Wheels Block	Glavkosmos	Russia	Purpose: Executive part of CubeSat three-axis orientation and stabilization...	on request
Reaction wheels module	SPUTNIX	Russia	Model: SPUTNIX SXC-FW4-02	on request
Reaction Wheels RW0 / 4RW0	NanoAvionics	Lithuania	Type: Reaction wheel actuator	on request

PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Reation Wheel RWT150	EXA (Astro-und Feinwerktechnik)	Germany	Angular momentum: 1.0 Nms @ nominal speed	on request
RSI 4-75/60 Momentum and Reaction Wheel	Collins Aerospace	United States	Mass: 3.7 kg	on request
RW Series Reaction Wheels	Blue Canyon Technologies	United States	Rwl: Smallest variant, 1U- 3U CubeSat class	on request
RW-1Nms	Dragonfly Aerospace	South Africa	Angular momentum: 1.0 Nms @28.5 V	on request
RW222	AAC Clyde Space	Sweden	Max speed: ±6000 RPM	on request
RWA-05	Berlin Space Technologies	Germany	Angular momentum storage: 5 arcsec	on request
RWA05 Reaction Wheel Assembly	Azista BST Aerospace	India	Type: Reaction wheel assembly with integrated fibre-optic gyro	on request
RWP Series Reaction Wheels	Blue Canyon Technologies	United States	Rwp015: Smallest RWP variant; microsatellite class	on request
Small Sat Reaction Wheels	Comat	France	Random: 21 grms	on request
Spacecraft orientation and stabilization system	Glavkosmos	Russia	Year of release: 2019	on request
Teldix High Motor Torque Momentum and Reaction Wheels	Collins Aerospace	United States	Wheel drive electronics integration: 14 to 68 Nms	on request
TELDIX RSI 12 Momentum and Reaction Wheels	Collins Aerospace	United States	Momentum range: 4 to 12 Nms	on request
TELDIX RSI 45 Momentum and Reaction Wheels	Collins Aerospace	United States	Momentum range: 15 to 45 Nms	on request
TELDIX RSI 68 Momentum and Reaction Wheels	Collins Aerospace	United States	Momentum range: 14 to 68 Nms	on request
Tensor Tech ADCS – 10m – Integrated Attitude Determination and Control System	Tensor Tech	Taiwan	Manufacturer: Tensor Tech	on request
Tensor Tech ADCS – 20m – Integrated Attitdde Determination and Control System	Tensor Tech	Taiwan	Manufacturer: Tensor Tech	on request
Tensor Tech ADCS – 40m – Integrated Attitdde Determination and Control System	Tensor Tech	Taiwan	Manufacturer: Tensor Tech	on request
Tensor Tech CMG-10m Control Moment Gyroscope	Tensor Tech	Taiwan	Manufacturer: Tensor Tech	on request
Tensor Tech CMG-20m Control Moment Gyroscope	Tensor Tech	Taiwan	Manufacturer: Tensor Tech	on request
Tensor Tech CMG-40m Control Moment Gyroscope	Tensor Tech	Taiwan	Manufacturer: Tensor Tech	on request
TensorCMG-10m	Tensor Tech	Taiwan	Dimensions: 54 x 49 x 56 mm3	on request
TensorCMG-10m-S	Tensor Tech	Taiwan	Dimensions: 54 x 49 x 56 mm3	on request

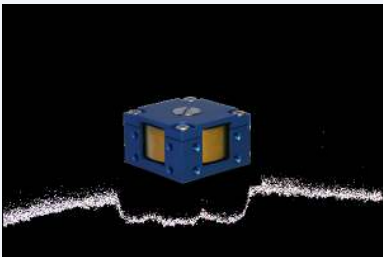
PRODUCT	MANUFACTURER	COUNTRY	KEY SPECIFICATION	PRICE
Trillian-1	AAC Clyde Space	Sweden	Maximum torque: 47.1 mNm	on request
VRW Reaction Wheels	VECTRONIC Aerospace GmbH	Germany	Angular momentum range (series): 0.2 Nms to 8 Nms	on request
VRW-B-02 Reaction Wheel	VECTRONIC Aerospace GmbH	Germany	Dimensions: 70 mm x 70 mm x 48 mm	on request
W18 Reaction Wheel	Bradford Space	Sweden	Interface: Analogue or Digital	on request
W18E Reaction Wheel	Bradford Space	Sweden	Interface: Analogue or Digital	on request
W18ES Reaction Wheel	Bradford Space	Sweden	Interface: Analogue or Digital	on request
W45 Reaction Wheel	Bradford Space	Sweden	Interface: Analogue or Digital	on request
W45E Reaction Wheel	Bradford Space	Sweden	Interface: Analogue or Digital	on request
Zyra Reaction Wheel	arcsec	Belgium	Momentum capacity: 27.5 mNms	on request

Products by manufacturer

AAC Clyde Space

SWEDEN · 1999 · 3 PRODUCTS

AAC Clyde Space provides small satellite technologies and space-based data services, offering end-to-end solutions from satellite components to data analytics for various applications.

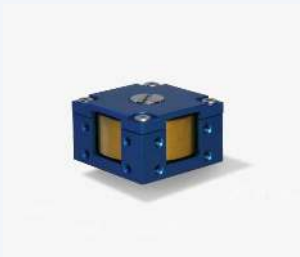


AAC CLYDE SPACE
AAC Clyde Space RW210 Reaction Wheel

Low mass, low power CubeSat reaction wheel with fire-and-forget speed/torque control, available in 1.5, 3.0, or 6.0 mN.m.s momentum storage variants.

Total momentum storage	±1.5, ±3.0, or ±6.0 mN.m.s
Maximum torque	±0.1 mN.m
Maximum rotation rate	10000 / 15000 / 15000 rpm
Control accuracy	±0.5 rpm
Outer dimensions	25 x 25 x 15 mm

[price on request](#) [datasheet](#)



AAC CLYDE SPACE
RW222

The RW222 is a reaction wheel designed for small satellites, offering high reliability, adaptability, and accuracy for precise pointing.

Max speed	±6000 RPM
Angular momentum storage	2.2 mNms
Max torque	0.2 mNm
Motor type	Brushless DC
Interface	I2C / CAN

[price on request](#) [datasheet](#)



AAC CLYDE SPACE
Trillian-1

High-performance reaction wheel for small satellites: 1.2 Nms momentum storage, 47.1 mNm max torque, 1.5 kg. Tested to NASA GEVS, flown since 2019.

Maximum torque	47.1 mNm
Maximum rotation rate	6500 rpm
Total momentum storage	+/- 1.2 Nms
Mass	1.5 kg
Peak power	24 W

[price on request](#) [datasheet](#)

Adcole Space (Redwire)

UNITED STATES · 1957 · 1 PRODUCT

Redwire is an integrated aerospace and defense company providing advanced technologies for space infrastructure, autonomous systems, and multi-domain operations to government agencies and defense cont



ADCOLE SPACE (REDWIRE)

MAI-400 Reaction Wheel

The MAI-400 reaction wheel is a standalone unit for CubeSats and NanoSat missions, featuring integrated motor driver electronics with an ARM Cortex CPU.

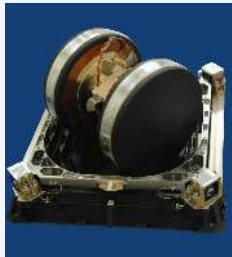
Availability90 days

price on request

Airbus Defence and Space

FRANCE · 2014 · 2 PRODUCTS

Airbus Defence and Space designs and manufactures satellites, spacecraft equipment, and provides related services for telecommunications, navigation, Earth observation, and space exploration.



AIRBUS DEFENCE AND SPACE

Agile Actuators (CMG 15-45S, 40-60S, 75-75S)

Airbus offers a range of Control Moment Gyroscopes (CMGs) for satellites, providing precise agility and high reliability with torque outputs up to 75Nm.

Satellite mass range500 kg to 3 tonnes

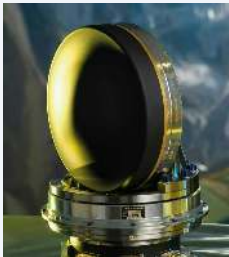
Torque outputup to 75 Nm

Flight heritageOver 1 million cumulative operational hours in orbit without failures

Operational durationOver a decade

Momentum70 Nms to 75 Nms

price on request datasheet



AIRBUS DEFENCE AND SPACE

Control Moment Gyroscopes (CMG 15-45S / 40-60S / 75-75S)

A range of compact, high-torque Control Moment Gyroscopes from Airbus for precise and agile satellite attitude control, covering satellites from 500 kg to 3 tonnes.

ModelsCMG 15-45S, CMG 40-60S, CMG 75-75S

Applicable satellite mass range500 kg to 3 tonnes

Torque outputUp to 75 Nm

Design featuresPatented designs, integrated vibration dampers

Cumulative in-orbit operational hoursOver 1 million hours, without failures

price on request datasheet

Arcsec designs and manufactures star trackers and reaction wheels, with over 100 systems sold and 5 years of flight heritage.



ARCSEC
Zyra Reaction Wheel

The Zyra reaction wheel is a compact, low microvibration reaction wheel designed for CubeSats up to 12U, featuring custom drive electronics and internal speed control.

Momentum capacity	27.5 mNms
Torque	1.5 mNm
Dimensions	40 × 40 × 24.5 mm
Supply voltage	5–12 V
Communication interface	RS485

price on request [datasheet](#)

ASPINA

ASPINA is the corporate brand of Shinano Kenshi Co., Ltd., a Japanese precision technology group manufacturing motors, actuators, blowers, and electronic components for space, medical, and industrial applications.



ASPINA
ASPINA Reaction Wheels for Small Space Satellites

ASPINA offers a lineup of reaction wheels (RWs) designed for small satellite constellations in Low Earth Orbit (LEO), catering to CubeSats and satellites ranging from 100kg to 500k

Item	Developing specification
Model	ARW-3m
TRL	8
Flight heritage	1st units launched: Jan 2025
Satellite mass	CubeSat

price on request



ASPINA
Reaction wheel

ASPINA offers a range of reaction wheels designed for satellite attitude control, featuring competitive pricing, high production capacity, low disturbance, light weight, and high p

Item	Developing specification
Model	ARW-3m
TRL	8
Flight heritage	1st units launched: Jan 2025
Satellite mass	CubeSat

price on request

Azista BST Aerospace is an Indo-German joint venture that mass manufactures small satellites (50-200kg) and provides end-to-end solutions for mega-constellations.



AZISTA BST AEROSPACE

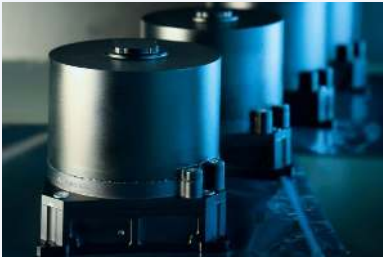
RWA05 Reaction Wheel Assembly

Reaction wheel assembly for small satellites with integrated fibre-optic gyro, by Azista BST Aerospace.

Type	Reaction wheel assembly with integrated fibre-optic gyro
Application	Attitude control of small satellites
Product line	Azista BST subsystems (BAT-110, PCU-110, PPDH-110, PLSU, RWA05)

price on request

Berlin Space Technologies (BST) designs and mass manufactures small satellite systems and technologies, providing end-to-end solutions for space missions.



BERLIN SPACE TECHNOLOGIES

RWA-05

The RWA05 by Berlin Space Technologies is a reaction wheel for small satellites, offering high precision and an optional integrated fibre optical gyro.

Angular momentum storage	5 arcsec
Torque (net)	14 mNm
Typical speed	5000 rpm
Speed control accuracy	+/- 2 rpm
Data interface	RS422

price on request

[datasheet](#)

Leading provider of small satellite buses, systems, and components for commercial, civil, and government space missions, a Raytheon (RTX) business.

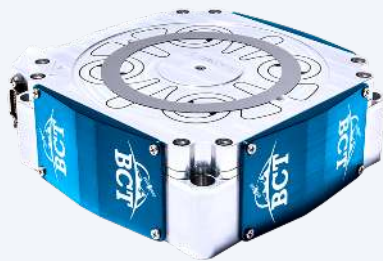


BLUE CANYON TECHNOLOGIES
Control Moment Gyroscopes

Blue Canyon Technologies' Control Moment Gyroscopes (CMGs) offer significantly higher torque and lower power consumption compared to traditional reaction wheels, providing enhanced

Cmg-8 momentum	8 Nms
Cmg-8 torque	8 Nm
Cmg-8 mass	< 13 kg
Cmg-12 momentum	12 Nms
Cmg-12 torque	12 Nm

price on request [datasheet](#)

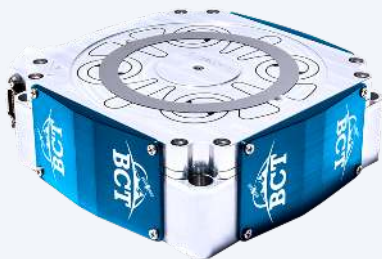


BLUE CANYON TECHNOLOGIES
Reaction Wheels

Blue Canyon Technologies' ultra-low disturbance reaction wheels deliver long-life performance and vibration isolation features, supporting missions from very low Earth orbit to cis

Torque	0.015 Nms
Torque (2)	16.0 Nms

price on request



BLUE CANYON TECHNOLOGIES
Reaction Wheels

Blue Canyon Technologies offers a line of low-jitter reaction wheels ranging from 0.015 Nms to 16.0 Nms of momentum, designed for long life and vibration isolation.

Rwp015 max momentum	0.015 Nms
Rwp015 max torque	0.004 Nm
Rwp015 mass	0.13 kg
Rwp050 max momentum	0.050 Nms
Rwp050 max torque	0.007 Nm

price on request [datasheet](#)



BLUE CANYON TECHNOLOGIES
RW Series Reaction Wheels

Blue Canyon Technologies' RW (Reaction Wheel) series is one of the most flight-proven lines of miniaturized reaction wheels available for small spacecraft. The family scales

Rw1	Smallest variant, 1U-3U CubeSat class
Rw2 / rw2-ht	2U-6U class; HT = High- Temperature qualified variant
Rw4 / rw4-ht	4U-6U class
Rw8 / rw8-ht	6U-12U class; used in XB6/XB12
Rw16 / rw16-ht	Largest variant for Saturn- 400 and 16U+ platforms

price on request



BLUE CANYON TECHNOLOGIES

RWP Series Reaction Wheels

The BCT RWP (Reaction Wheel Precision) series addresses the momentum and torque storage needs of microsatellite platforms above the 6U CubeSat class. The four variants — RWP015, RW

Rwp015	Smallest RWP variant; microsatellite class
Rwp050	Mid-range stored momentum
Rwp100	Suitable for Venus/Saturn-class platforms
Rwp500	Largest stored momentum; Saturn-400 and larger buses
Qualification	Qualified beyond GEVS-level environments

price on request

Bradford Space

SWEDEN · 2000 · 5 PRODUCTS

Swedish green propulsion pioneer; HPGP / LMP-103S thrusters using ADN propellant with 12% higher Isp than hydrazine; Bradford ENOVIA group.



BRADFORD SPACE

W18 Reaction Wheel

Compact reaction wheel assembly with analogue or digital interface, proven zero-crossing and low-RPM performance.

Interface	Analogue or Digital
Flight heritage	SOHO, RadarSat, Seastar, Olympus, Integral, XMM, Rosetta, Aeolus, BepiColombo
Momentum	18 Nms
Maximum Operational Speed	4000 RPM
Maximum Gross Torque	0.265 Nm

price on request [datasheet](#)



BRADFORD SPACE

W18E Reaction Wheel

Extended-capacity variant of the W18 reaction wheel assembly for small and medium satellite attitude control.

Interface	Analogue or Digital
Product line	W-series Reaction Wheel Unit
Momentum	22 Nms
Maximum Operational Speed	4000 RPM
Number of pulses per revolution	240

price on request [datasheet](#)



BRADFORD SPACE
W18ES Reaction Wheel

High-capacity W18-series reaction wheel variant offering extended momentum storage for demanding pointing missions.

Interface	Analogue or Digital
Product line	W-series Reaction Wheel Unit
Momentum	25 Nms
Maximum Operational Speed	4000 RPM
Number of pulses per revolution	240

[price on request](#) [datasheet](#)



BRADFORD SPACE
W45 Reaction Wheel

Larger-class reaction wheel assembly from Bradford Space's W-series for medium and large satellite platforms.

Interface	Analogue or Digital
Flight heritage	SOHO, RadarSat, Seastar, Olympus, Integral, XMM, Rosetta, Aeolus, BepiColombo
Momentum	40 Nms
Maximum Operational Speed	4000 RPM
Number of pulses per revolution	240

[price on request](#) [datasheet](#)



BRADFORD SPACE
W45E Reaction Wheel

Extended-capacity W45-series reaction wheel for large satellite platforms requiring maximum momentum storage.

Interface	Analogue or Digital
Product line	W-series Reaction Wheel Unit
Momentum	45 Nms
Maximum Operational Speed	4000 RPM
Number of pulses per revolution	240

[price on request](#) [datasheet](#)

Collins Aerospace

UNITED STATES · 5 PRODUCTS

Collins Aerospace, an RTX company, delivers advanced avionics, communication systems, and space technology solutions to commercial aviation, defense, and space customers worldwide.



COLLINS AEROSPACE

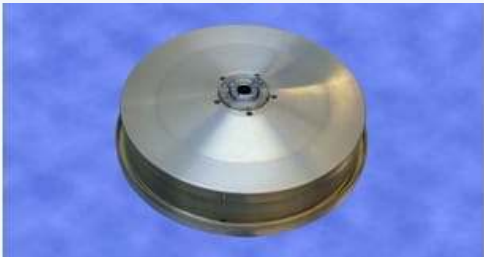
RSI 4-75/60 Momentum and Reaction Wheel

Compact TELDIX momentum/reaction wheel with integrated wheel drive electronics for small satellite attitude control, 0.04-4 Nms class.

Mass	3.7 kg
Power	20.0 W average
Interface	Form factor: SmallSat
Flight heritage	Part of TELDIX wheel family with 40+ years heritage, 7,300+ cumulative in-orbit years
TRL	9 (flight-proven)

price on request

datasheet



COLLINS AEROSPACE

TELDIX RSI 12 Momentum and Reaction Wheels

Compact TELDIX momentum and reaction wheels with integrated wheel drive electronics at 4 to 12 Nms, for satellites weighing 200 to 1,000 kg.

Momentum range	4 to 12 Nms
Wde	Integrated Wheel Drive Electronics
Target platform	Satellites 200–1,000 kg
Design lifetime	> 15 years
Flight heritage	7,300+ years cumulative in-orbit operational time

price on request

COLLINS AEROSPACE

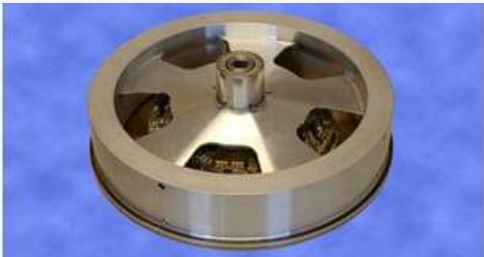
Teldix High Motor Torque Momentum and Reaction Wheels

Collins Aerospace's Teldix space wheels are high motor torque momentum and reaction wheels with integrated wheel drive electronics, used in spacecraft attitude control systems.

Wheel drive electronics integration	14 to 68 Nms
Angular momentum storage capacity	0.04 to 68 Nms
Supported spacecraft mass range	30 kg to 7,000 kg
High motor torque variant satellite mass range	1,500 to 5,000 kg
Lifetime design	More than 15 years

price on request

datasheet



COLLINS AEROSPACE

TELDIX RSI 45 Momentum and Reaction Wheels

TELDIX momentum and reaction wheels with integrated WDE at 15 to 45 Nms and high torque capability, for satellites weighing 500 to 1,500 kg.

Momentum range	15 to 45 Nms
Wde	Integrated Wheel Drive Electronics
Target platform	Satellites 500–1,500 kg
Design lifetime	> 15 years
Flight heritage	7,300+ years cumulative in-orbit operational time

price on request



COLLINS AEROSPACE

TELDIX RSI 68 Momentum and Reaction Wheels

High-capacity TELDIX momentum and reaction wheels with internal WDE at 14 to 68 Nms, for large satellites weighing 1,500 to 5,000 kg.

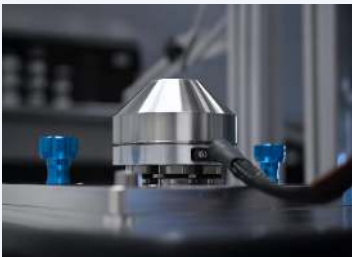
Momentum range	14 to 68 Nms
Wde	Internal Wheel Drive Electronics
Target platform	Satellites 1,500–5,000 kg
Design lifetime	> 15 years
Flight heritage	7,300+ years cumulative in-orbit operational time

price on request

Comat

FRANCE · 1963 · 2 PRODUCTS

Comat is a French aerospace equipment manufacturer, part of the Hemeria group, designing flight hardware and mechanisms for small satellites, telecommunications/observation payloads, and space exploration missions.



COMAT

Reaction Wheels

Comat reaction wheels are designed for detumbling, pointing control, and agile attitude maneuvers, providing long lifetime and reliable performance in orbit for small and medium sa

Satellite compatibility (Light Series)	Optimised for platforms from 10 to 200 kg
Angular momentum (Light Series)	From 20 mNms to 2 Nms
Operational lifetime (Light Series)	Minimum 8 years in LEO
Max speed (Light Series)	Up to 6 000 RPM
Satellite compatibility (Heavy Series)	Optimised for platforms from 200 to 1 000 kg

price on request



COMAT

Small Sat Reaction Wheels

A range of plug-and-play, radiation-proof reaction wheels designed for small satellites from 10 kg to 1000 kg, offering long lifespan and safeguarded electronics.

Random	21 grms
Shock	1,000 g/2,000 Hz
Minimum speed	Down to 2 rpm
Zero crossing tests	More than 100,000
Operational life	10 years

price on request

CubeSpace ADCS

SOUTH AFRICA · 9 PRODUCTS

South African manufacturer of space-proven, plug-and-play Attitude Determination and Control Systems (ADCS) for small satellites, with over a decade of flight heritage.



CUBESPACE ADCS

Reaction Wheel (CW40K) (4Nms)

CubeSpace (CS) offers a wide range of robust reaction wheels perfect for CubeSats and SmallSats. Our reaction wheel range is designed for precision performance, reliability, ease...

Manufacturer **CubeSpace**

Lead time **12 weeks**

price on request



CUBESPACE ADCS

Reaction Wheel CW0017

CubeSpace (CS) offers a wide range of robust reaction wheels perfect for CubeSats and SmallSats. Our reaction wheel range is designed for precision performance, reliability, ease...

Manufacturer **CubeSpace**

Lead time **12 weeks**

price on request



CUBESPACE ADCS

Reaction Wheel CW0057

CubeSpace (CS) offers a wide range of robust reaction wheels perfect for CubeSats and SmallSats. Our reaction wheel range is designed for precision performance, reliability, ease...

Manufacturer **CubeSpace**

Lead time **12 weeks**

price on request



CUBESPACE ADCS

Reaction Wheel CW0162

CubeSpace (CS) offers a wide range of robust reaction wheels perfect for CubeSats and SmallSats. Our reaction wheel range is designed for precision performance, reliability, ease...

Manufacturer **CubeSpace**

Lead time **12 weeks**

price on request



CUBESPACE ADCS

Reaction Wheel CW0500

CubeSpace (CS) offers a wide range of robust reaction wheels perfect for CubeSats and SmallSats. Our reaction wheel range is designed for precision performance, reliability, ease...

Manufacturer **CubeSpace**

Lead time **12 weeks**

price on request



CUBESPACE ADCS

Reaction Wheel CW10k (1 Nms)

CubeSpace (CS) offers a wide range of robust reaction wheels perfect for CubeSats and SmallSats. Our reaction wheel range is designed for precision performance, reliability, ease...

Manufacturer **CubeSpace**

Lead time **12 weeks**

price on request



CUBESPACE ADCS

Reaction Wheel CW1200 (0.12 Nms)

CubeSpace (CS) offers a wide range of robust reaction wheels perfect for CubeSats and SmallSats. Our reaction wheel range is designed for precision performance, reliability, ease...

Manufacturer CubeSpace

Lead time 12 weeks

price on request



CUBESPACE ADCS

Reaction Wheel CW2500 (0.25 Nms)

CubeSpace (CS) offers a wide range of robust reaction wheels perfect for CubeSats and SmallSats. Our reaction wheel range is designed for precision performance, reliability, ease...

Manufacturer CubeSpace

Lead time 12 weeks

price on request



CUBESPACE ADCS

Reaction Wheel CW5000 (0.5 Nms)

CubeSpace (CS) offers a wide range of robust reaction wheels perfect for CubeSats and SmallSats. Our reaction wheel range is designed for precision performance, reliability, ease...

Manufacturer CubeSpace

Lead time 12 weeks

price on request

Dragonfly Aerospace

SOUTH AFRICA · 2019 · 1 PRODUCT

South African manufacturer of high-performance electro-optical imaging payloads and satellite platforms for Earth observation.



DRAGONFLY AEROSPACE

RW-1Nms

A high-fidelity reaction wheel designed for imaging satellites, offering exceptional platform stability and precise control with minimal disturbance torques.

Angular momentum 1.0 Nms @28.5 V

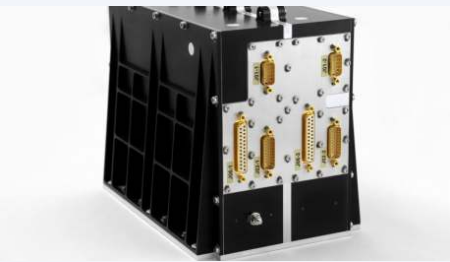
Torque ±39 mNm (±74 mNm)*

Control modes	Current, Speed and Torque Control
Rate (Speed, Torque)	10 Hz
Speed range	±10 000 RPM
price on request datasheet	

EREMS

FRANCE · 1979 · 1 PRODUCT

EREMS is a French SME founded in 1979, specializing in the design and realization of electronic equipment and software for high technology fields including Space.



EREMS

JANSFER Reaction Wheel Controller

Electronic controller for driving and monitoring satellite reaction wheels — acquires commands, monitors sensors, controls wheel motor for attitude control.

Function

Reaction wheel driving and monitoring

Scope

Full development, manufacturing, and qualification by EREMS

[price on request](#)

EXA (Astro-und Feinwerktechnik)

GERMANY · 1993 · 14 PRODUCTS

German manufacturer of reaction wheels, CubeSat picosatellite deployers, and AOCS components for small satellites, based in Berlin-Adlershof.



EXA (ASTRO-UND FEINWERKTECHNIK)

MicroCMG

The MicroCMG is a Control Moment Gyroscope designed for small satellites, providing attitude control with high angular momentum and torque capabilities.

Angular momentum

8.0 Nms

Nominal rotation speed

3820 rpm

Nomial torque

14.0 Nm

Mass

≤ 8.0 kg



EXA (ASTRO-UND FEINWERKTECHNIK)

Reaction Wheel RW1

The RW1 is a reaction wheel designed for small satellites, featuring separate wheel drive electronics and available with two different rotating masses (Type A or Type B) to provide

Parameter

Type A

Angular momentum

5.8 E-4 Nms

Nominal rotation speed

8000 rpm

Maximum rotation speed

≈ 16 380 rpm

Dimensions 188 x 188 x 240 mm³

[price on request](#) [datasheet](#)



EXA (ASTRO-UND FEINWERKTECHNIK)
Reaction Wheel RW100

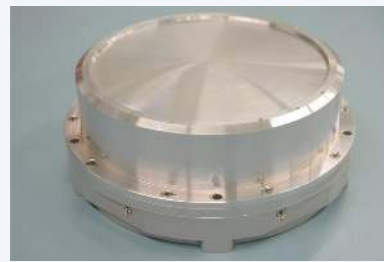
The RW100 is a reaction wheel for small satellites, optimized for constellation applications and based on the RW90 design.

Angular momentum	0.4 Nms @ nominal speed
Nominal rotation speed	6000 rpm
Nominal reaction torque	0.02 Nm Max. commandable deliverable output torque over the whole speed range
Supply voltage	18 to 34 V
Power consumption	≤ 2 W Stand by (motor off)

[price on request](#) [datasheet](#)

Speed resolution 0.25 rpm (1LSB)

[price on request](#) [datasheet](#)



EXA (ASTRO-UND FEINWERKTECHNIK)
Reaction Wheel RW150

The RW150 is a reaction wheel designed for small satellites, featuring integrated wheel drive electronics, various operation modes, and high torque and speed stability.

Angular momentum	1.0 Nms
Nominal rotation speed	6000 rpm
Nominal reaction torque	0.03 Nm
Supply voltage	18 to 34 V
Power consumption stand by (motor off)	≤ 2 W

[price on request](#) [datasheet](#)



EXA (ASTRO-UND FEINWERKTECHNIK)
Reaction Wheel RW1500

The RW1500 is a reaction wheel currently under development, designed for satellite attitude control with an angular momentum of 25.0 Nms and a nominal rotation speed of 4000 rpm.

Angular momentum	25.0 Nms @ nominal speed
Nominal rotation speed	4000 rpm
Nominal reaction torque	0.2 Nm Max. commandable reaction torque
Supply voltage	22 to 37 V
Power consumption	≤ 2.5 W Stand by (motor off)

[price on request](#) [datasheet](#)



EXA (ASTRO-UND FEINWERKTECHNIK)
Reaction Wheel RW25

The RW25 is a compact reaction wheel designed for nano-satellite applications, featuring integrated electronics for independent operation via a digital interface.

Angular momentum	30 mNms
Nominal rotation speed	5000 rpm
Nominal torque (max. commandable)	2 mNm (more by design possible)
Communication	SPI preferred (CAN possible)
Supply voltage	5 V

[price on request](#) [datasheet](#)



EXA (ASTRO-UND FEINWERKTECHNIK)

Reaction Wheel RW250

The RW250 is a reaction wheel for small satellites, featuring integrated wheel drive electronics, various operation modes, and extensive housekeeping data.

Angular momentum	4.0 Nms @ nominal speed
Nominal rotation speed	5000 rpm
Nominal reaction torque	0.1 Nm Max. commandable deliverable output torque over the whole speed range
Supply voltage	23 to 34 V
Power consumption	≤ 2.5 W Stand by (motor off)

[price on request](#) [datasheet](#)



EXA (ASTRO-UND FEINWERKTECHNIK)

Reaction Wheel RW3000

The RW3000 is a reaction wheel designed for satellite attitude control, currently under development. It offers an angular momentum of 50 Nms and a nominal reaction torque of 0.2 Nm

Angular momentum	50.0 Nms @ nominal speed
Nominal rotation speed	4000 rpm
Nominal reaction torque	0.2 Nm Max. commandable reaction torque
Supply voltage	22 to 37 V
Power consumption	≤ 2.5 W Stand by (motor off)

[price on request](#) [datasheet](#)



EXA (ASTRO-UND FEINWERKTECHNIK)

Reaction Wheel RW35

The RW35 is a reaction wheel designed for small satellites, featuring integrated drive electronics, high torque and speed stability, and extensive housekeeping capabilities.

Angular momentum	0.1 Nms
Nominal rotation speed	5000 rpm
Nominal torque (max. commandable)	0.005 Nm
Moment of inertia (rotating mass)	1.9 x 10 ⁻⁴ kgm ²
Supply voltage	18 V - 34 V

[price on request](#) [datasheet](#)



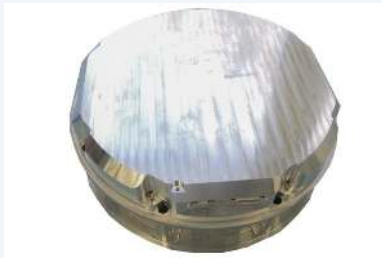
EXA (ASTRO-UND FEINWERKTECHNIK)

Reaction Wheel RW6000

The RW6000 is a large reaction wheel currently under development by ASTROFEIN, designed for satellite attitude control with high angular momentum and reaction torque capabilities.

Angular momentum	100.0 Nms @ nominal speed
Nominal rotation speed	4200 rpm
Nominal reaction torque	0.2 Nm Max. commandable reaction torque
Supply voltage	23 to 34 V
Power consumption	≤ 5.0 W Stand by (motor off)

[price on request](#) [datasheet](#)



EXA (ASTRO-UND FEINWERKTECHNIK)

Reaction Wheel RW800

The RW800 is a reaction wheel for satellites, currently under development with an engineering model available, designed for attitude control.

Angular momentum	12.0 Nms
Remark	@ nominal speed
Nominal rotation speed	3600 rpm
Nominal reaction torque	0.2 Nm
Remark (max)	Max. commandable reaction torque

[price on request](#) [datasheet](#)



EXA (ASTRO-UND FEINWERKTECHNIK)

Reaction Wheel RW90

The RW90 is a reaction wheel designed for small satellites, featuring integrated drive electronics, multiple operation modes, and high torque and speed stability.

Angular momentum	0.35 Nms @7800 rpm
Nominal rotation speed	6000 rpm
Nominal reaction torque	0.015 Nm Max. commandable deliverable output torque over the whole speed range
Power consumption	≤ 1.8 W Stand by (motor off)
Power consumption (2)	≤ 2.7 W @ 3000 rpm

[price on request](#) [datasheet](#)



EXA (ASTRO-UND FEINWERKTECHNIK)

Reaction Wheel RWT250

The RWT250 is a reaction wheel designed for small satellites, featuring integrated wheel drive electronics, various operation modes, and extensive housekeeping data.

Angular momentum	4.0 Nms @ nominal speed
Nominal rotation speed	5000 rpm
Nominal reaction torque	0.3 Nm Max. commandable deliverable output torque over the whole speed range
Supply voltage	23 to 34 V
Power consumption	≤ 3.0 W Stand by (motor off)

[price on request](#) [datasheet](#)



EXA (ASTRO-UND FEINWERKTECHNIK)

Reaction Wheel RWT150

The RWT150 is an upscaled reaction wheel for small satellites, currently under development, designed to provide attitude control with a nominal angular momentum of 1.0 Nms.

Angular momentum	1.0 Nms @ nominal speed
Nominal rotation speed	6000 rpm
Nominal reaction torque	0.1 Nm Max. commandable deliverable output torque over the whole speed range
Supply voltage	18 to 34 V
Power consumption	≤ 2.5 W Stand by (motor off)

[price on request](#) [datasheet](#)

Flywheel Aerospace

INDIA · 1 PRODUCT

Flywheel Aerospace designs and manufactures modular robotics platforms and educational kits, serving universities, research labs, and startups in India with solutions for robotics, AI, and space techn

FLYWHEEL AEROSPACE

Flywheel Aerospace Momentum Storage Systems

Indian company developing flywheel-based momentum and energy storage systems for satellite attitude control applications.

Technology	Flywheel momentum/energy storage
Application	Satellite attitude control
Country	India
price on request	

Gimbal Space

UNITED STATES · 1 PRODUCT

Gimbal Space designs and manufactures custom attitude determination and control systems (ADCS), including integrated systems, for customers with GNC teams.



GIMBAL SPACE Reaction Wheels

Custom-configurable reaction wheels for spacecraft attitude control — reliable, affordable, readily-available ADCS hardware for smallsat missions.

Configuration	Custom solutions available
Sizes	Multiple sizes

price on request

Glavkosmos

RUSSIA · 1985 · 3 PRODUCTS

Glavkosmos coordinates international human spaceflight projects, facilitates satellite launches, develops and supplies rocket components, and provides equipment for space crews.



GLAVKOSMOS Kinetic Moment Reset System

A magnetic momentum-management system that calms a low-orbit spacecraft and dumps accumulated kinetic moment from the spacecraft body and flywheel engines using geomagnetic-field c

Year of release	2005
Design life	10 years
Lead time	14 months
Flight qualification of the product	Yes
Flight heritage	As part of the Resurs-DK spacecraft



GLAVKOSMOS Reaction Wheels Block

The Reaction Wheels Block is an executive part of a CubeSat three-axis orientation and stabilization system, containing four reaction wheels for precise attitude control.

Purpose	Executive part of CubeSat three-axis orientation and stabilization system.
Year of release	2018
Design life	1 years
Lead time	5 months
Flight qualification of the product	No

price on request



GLAVKOSMOS

Spacecraft orientation and stabilization system

A high-precision orientation and stabilization system for medium-orbit spacecraft, designed to manage spacecraft attitude, perform programmable turns, and ensure energy levels.

Year of release 2019

Lead time 24 months

Flight qualification of the product Yes

Brief history of flight qualification "Condor-E" spacecraft

Possibility to adapt the product to customer requirements Yes

price on request

price on request

GomSpace

DENMARK · 2007 · 3 PRODUCTS

GomSpace is a Danish CubeSat manufacturer producing satellite platforms, subsystems, and end-to-end mission solutions. Products include the NanoCom radio modules, NanoPower EPS, and complete 1U–12U satellite platforms. GomSpace has one of t



GOMSPACE

NanoDock ADCS-6

The GomSpace NanoDock ADCS-6 is designed to be a component in a complete ADCS system, providing a physical platform for daughterboards and electrical connections.

Operating temperature -40 °C to +85 °C

Interface I2C, SPI, CAN, RS422, USB, UART

price on request

[datasheet](#)



GOMSPACE

NanoTorque GSW-600

The NanoTorque GSW-600 is a compact, high-performance reaction wheel system consisting of four wheels in a pyramid setup, designed for 5 years of in-orbit operations for CubeSats a

Torque 2 mNm

Momentum 19 mNms

Maximum speed 6000 rpm

Interface SPI

Redundant data interface I2C

price on request

[datasheet](#)



GOMSPACE

NanoTorque GSW-600 Reaction Wheels

4-wheel pyramid reaction wheel assembly for CubeSats, flight-proven with a 5-year design lifetime and seamless integration with GomSpace ADCS ecosystem.

Configuration	4-wheel pyramid assembly
Design lifetime	5 years in-orbit
Integration	Compatible with NanoTorque GST-600 magnetorquer
Application	CubeSat 3-axis attitude control
Flight heritage	Flight-proven

price on request [datasheet](#)

Honeywell Aerospace

1906 · 2 PRODUCTS

Honeywell Aerospace is a major division of Honeywell International Inc. (NASDAQ: HON) — a Fortune 100 conglomerate headquartered in Charlotte, North Carolina — providing avionics, satellite navigation equipment, satellite communications sys



HONEYWELL AEROSPACE

HR04, HC7 & HC9 Reaction Wheel Assemblies

The HR04, HC7, and HC9 are a series of reaction wheel assemblies designed for spacecraft attitude control, offering flexibility in packaging, momentum, and torque options.

Gen 1 qualification (HC7 and HC9)	Completed in June 2021
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price on request



HONEYWELL AEROSPACE

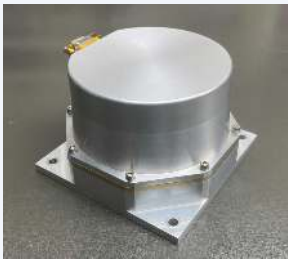
Momentum Control Systems

Honeywell's Momentum Control Systems offer turnkey controls for arrays of up to six Control Moment Gyroscopes (CMGs), ensuring deterministic, singularity-free operation with guaran

Rotor momentum	50 ft-lb-sec
Peak torque	50 ft-lb
Gimbal rate	1 rad/sec
Power consumption	120 W
Slew rate	up to 15 deg/min

price on request

Microsat Systems Canada designs, builds, and operates Microsatellites. The company is also a supplier of MicroWheel Reaction Wheels.



MICROSAT SYSTEMS CANADA

MicroWheel 1000

The MicroWheel 1000 (MW 1000X and MW 1000DX) is a reaction wheel torque actuator and angular momentum storage device for mini-satellites and microsatellites, designed for satellite

Momentum	1.1 Nms
Torque	30 mNm
Mass	< 1.44 kg
Dimensions	129 mm × 129 mm × 89 mm
Power	< 1.5 W (Idle)

price on request [datasheet](#)



MICROSAT SYSTEMS CANADA

MicroWheel 200

The MicroWheel 200 (MW 200X) is a reaction wheel torque actuator and angular momentum storage device for mini-satellites and microsatellites, part of MSCI's High Performance Attitu

Momentum	0.18 Nms
Torque	30 mNm
Mass	< 0.94 kg
Dimensions	89 mm × 102 mm × 89 mm
Power	< 1.5 W

price on request [datasheet](#)

MinoSpace

Chinese commercial satellite manufacturer building Earth observation, communications, and remote sensing satellites, plus payloads, components, and ground terminal systems.



MINOSPACE

0.3 N·m·s Reaction Wheel

This reaction wheel is an actuator for satellite attitude control systems, designed to generate reaction control torque by accelerating or decelerating to absorb angular momentum c

price on request

Pre-integrated nanosatellite buses (3U–16U+ MP42), green chemical propulsion, mission integration.



NANOAVIONICS
CubeSat Reaction Wheels Control System (SatBus 4RW)

The SatBus 4RW is a reaction/momentum wheel system offered as a separate component (RW0) or an integrated four-reaction-wheel redundant 3-axis control system (4RW0) for CubeSats an

CUBESAT reaction wheel starting price (RW0)	€ 4,100
Minimum order quantity for rw0 subsystem	4 pieces

from €4 100



NANOAVIONICS
Reaction Wheels RW0 / 4RW0

Momentum reaction wheels for CubeSat attitude control — single unit (RW0) or 4-wheel cluster (4RW0).

Type	Reaction wheel actuator
Configurations	RW0 single / 4RW0 cluster
Function	ADCS / 3-axis attitude control
Flight heritage	60+ satellites launched, 300+ in production (per nanoavionics.com)

price on request

NewSpace Systems (NSS)

NewSpace Systems (NSS) manufactures spacecraft components and sub-systems, focusing on Guidance, Navigation, and Control (GNC) products for commercial spacecraft manufacturers globally.



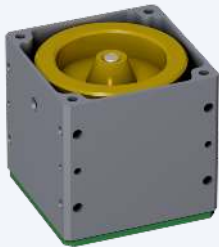
NEWSPACE SYSTEMS (NSS)
NRWA Reaction Wheels

NewSpace Systems' NRWA reaction wheels provide spacecraft attitude control through momentum exchange between the satellite body and a rotating flywheel. The product line offe

Models	NRWA-T065, NRWA-T2, NRWA-T6, NRWA-T25
Control modes	Current, speed, and torque control
Interface	Digital spacecraft bus
Sealing	Hermetic (T065 and T2)
Optional gyroscope	Yes (T065 model)

price on request

German manufacturer of miniature optoelectronic ADCS components for small satellites and CubeSats.



PYXIS SPACE
Reaction Wheel

The Pyxis Space Reaction Wheel is a miniaturized momentum exchange device for precise attitude control of CubeSat and nanosatellite platforms. Measuring only 32 × 32 × 32 mm³ and w

Dimensions	32 × 32 × 32 mm ³
Mass	100 g
Max torque	2 mNm
Momentum storage	5 mNms
Interface	CAN 2.0B

\$6 000 [datasheet](#)

SERENUM Space is a CubeSat component and BUS manufacturer, integrator, and service provider based in Brno, Czech Republic, and a commercially oriented subsidiary of VZLU AEROSPACE.



SERENUM SPACE
Reaction Wheels (RW25)

Fine-pointing CubeSat reaction wheels with BLDC motor, integrated IMU, and CubeSat Space Protocol support, for 1U-6U platforms.

Motor	BLDC with 3 integrated Hall sensors
Microcontroller	ARM Cortex-M0+ (24 MHz)
IMU	6-axis (3-axis accelerometer, 3-axis gyroscope)
Interfaces	I2C or UART (runtime configurable), CubeSat Space Protocol
3.3v rail (absolute max)	-0.3 to 4.0 V

[price on request](#)

Shenzhen MagicCubeSat Technology (MCS) builds small satellites and their core onboard units, and operates remote sensing constellations. The company runs an automated production line for satellite core components in Chongqing with an annual



SHENZHEN MAGICCUBESAT TECHNOLOGY (MCS)
15 mNms Momentum Wheel

Miniature momentum wheel with 15 mNms angular momentum for small satellite attitude control.

Angular momentum	15 mNms
First flight	2020
Application	Low-orbit small satellites

price on request



SHENZHEN MAGICCUBESAT TECHNOLOGY (MCS)
340 mNms Momentum Wheel

Momentum wheel with 340 mNms angular momentum for larger small satellites.

Angular momentum	340 mNms
First flight	2020
Application	Low-orbit small satellites

price on request



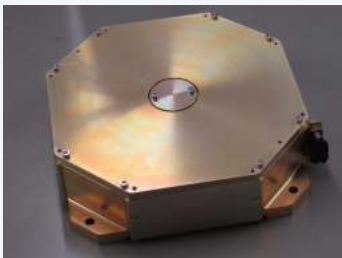
SHENZHEN MAGICCUBESAT TECHNOLOGY (MCS)
50 mNms Momentum Wheel

Momentum wheel with 50 mNms angular momentum for small satellite attitude control.

Angular momentum	50 mNms
First flight	2020
Application	Low-orbit small satellites

price on request

Canadian manufacturer of reaction wheels and star trackers for small satellites; 200+ wheels and 78+ star trackers in orbit; part of Rocket Lab since April 2020; founded 2001.



SINCLAIR INTERPLANETARY (ROCKET LAB)

1 Nms GEO Reaction Wheel

Radiation-hardened version of the heritage 1 Nms wheel, built for GEO and other high-radiation orbits.

Angular momentum capacity	1 Nms
Target orbit	GEO / high-radiation orbits
Radiation hardening	Rad-hard parts, shielded enclosure, active deep-charging mitigation
First flight deliveries	Scheduled Q1 2020
Control interface	Digital serial bus, commandable speed/momentum/torque

[price on request](#)



SINCLAIR INTERPLANETARY (ROCKET LAB)

30 mNms Nanosatellite Reaction Wheel

Sinclair Interplanetary's first and most popular wheel design, sized to fit a 6U to 12U CubeSat.

Angular momentum capacity	30 mNms
On-orbit heritage	61 units on-orbit (first launch April 2008)
Form factor fit	6U to 12U CubeSat
Control interface	Digital serial bus, commandable speed/momentum/torque
Telemetry	Speed, temperature, voltage, current, health status

[price on request](#) [datasheet](#)

SINCLAIR INTERPLANETARY (ROCKET LAB)

1 Nms Microsatellite Reaction Wheel

Sinclair Interplanetary's largest reaction wheel, suitable for 100 kg-class Earth-observation microsatellites.

Angular momentum capacity	1 Nms
Target spacecraft class	~100 kg Earth-observation microsatellite
On-orbit heritage	76 units on 19 spacecraft (first launch June 2016)
Control interface	Digital serial bus, commandable speed/momentum/torque
Telemetry	Speed, temperature, voltage, current, health status

[price on request](#) [datasheet](#)



SINCLAIR INTERPLANETARY (ROCKET LAB)

400 mNms Microsatellite Reaction Wheel

High-torque, radiation-hardened wheel for high-agility remote sensing or science microsatellites.

Angular momentum capacity	400 mNms
Equivalent cmg performance	0.4 Nms CMG at 22.5 deg/sec gimbal rate
Target application	High-agility remote sensing / science microsatellites
Design focus	High torque, radiation hardness
Control interface	Digital serial bus, commandable speed/momentum/torque

[price on request](#) [datasheet](#)



SINCLAIR INTERPLANETARY (ROCKET LAB)
Reaction Wheels

Sinclair Interplanetary offers a range of high-reliability, vacuum-lubricated reaction wheels for picosatellites, nanosatellites, and microsatellites, featuring built-in digital pr

1 nms microsatellite wheel suitability	100 kg Earth-observation missions
1 nms microsatellite wheel units on-orbit	76 units on 19 spacecraft
1 nms microsatellite wheel first launch	June 2016
1 nms GEO wheel features	Hardened version of heritage 1 Nms wheel, rad-hard parts, shielded enclosure, active mecha
1 nms GEO wheel suitability	High orbits

price on request [datasheet](#)

Space Inventor ApS

DENMARK · 2015 · 1 PRODUCT

Space Inventor ApS is a Danish second-generation NewSpace company providing non-ITAR CubeSat, nanosat, and microsat components, platforms, and turnkey satellite missions with full vertical integration, headquartered in Aalborg with offices



SPACE INVENTOR APS
Reaction Wheel

High-performance reaction wheel for microsatellite attitude control, available in 500 and 1000 Nms configurations.

Msrp	€55,000
Momentum capacity	500 and 1000 Nms variants
Mission lifetime	Up to 5 years
Motor	3-phase outrunner permanent magnet synchronous motor (PMSM)
Bearings	Two hybrid ceramic high-precision bearings

\$55 000

SPUTNIX is a Russian manufacturer of nanosatellite and microsatellite platforms, onboard subsystems and ground infrastructure, operating as a subsidiary brand of Sitronics Group.



SPUTNIX

CubeSat Reaction Wheels Module SXC-FW4-02

4-flywheel reaction wheel module for 3U+ CubeSats. DC brushless motors with vacuum-rated bearings, CAN interface per driver, ± 5000 RPM, max torque 8.8/8.8/4.5 mNm (X/Y/Z), 580 g.

Dimensions	97.5 × 97.5 × 80 mm
Mass	580 g
Supply voltage	5–12 V
Speed range	± 5000 RPM
Max torque x/y	8.8 mNm

price on request

SPUTNIX

Microsatellite Reaction Wheel SX-SBOX-RWH-50-2.0-01

Control flywheel motor (CFM) for microsatellites. Max torque 0.05 Nm, max kinetic moment 2 Nms, 3.2 kg, CAN2B interface. Compatible with ECSS standards.

Dimensions	160 × 160 × 80 mm
Mass	3.2 kg
Supply voltage	22–34 V
Max control torque	0.05 Nm
Max kinetic moment	2 Nms

price on request

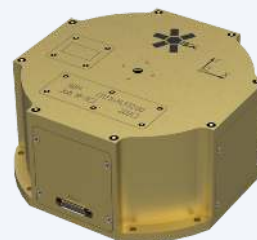
SPUTNIX

Microsatellite Magnetometer SX-SBOX-MAG-01

3-axis magnetometer for microsatellite ADCS. Anisotropic magnetoresistive sensors, $\pm 100,000$ nT range, 100 nT noise, 54×52×16 mm, 70 g, CAN2B. Used for detumbling and flywheel unload

Dimensions	54 × 52 × 16 mm
Mass	70 g
Measurement range	$\pm 100,000$ nT
Noise (1σ)	100 nT
Power consumption	0.8 W

price on request



SPUTNIX

Reaction wheel

A control flywheel motor (CFM, SX-SBOX-RWH-50-2.0-01) generating control torque via rotor acceleration/deceleration for larger satellite platforms.

Dimensions	160 × 160 × 80 (without fasteners) mm
Mass	3.2 kg
Power voltage	22-34 (without galvanic isolation)
Peak power consumption, wt	43
Power consumption, wt	10

price on request

SPUTNIX

Reaction wheels module

A 4-flywheel reaction wheel module (SXC-FW4-02) for CubeSat 3-axis attitude control, integrating drivers and control electronics on a single PC/104 card.

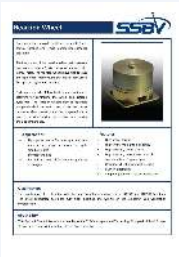
Model	SPUTNIX SXC-FW4-02
Feature	Complete 3-axis angular rate actuators for CubeSat satellite
Feature (2)	Easily integrates with SPUTNIX platforms
Feature (vacuum)	Four brushless DC motors with vacuum-rated bearings
Feature (4)	Wide power supply range

price on request

SSBV Aerospace & Technology

NETHERLANDS · 1985 · 1 PRODUCT

SSBV Aerospace & Technology Group was a Dutch-led, technology-driven group of companies providing space and defence hardware, including smallsat subsystems, ground station equipment, and precision airdrop systems.



SSBV AEROSPACE & TECHNOLOGY

Microsat Reaction Wheel

The SSBV Microsat Reaction Wheel is a compact and high-performance attitude control device for small satellites, offering precise pointing and stabilization.

Max wheel torque	20 mNm
Max wheel momentum	0.65 Nms
Speed range	-9000 to +9000 rpm
Rotor moment of inertia	1.0 x 10-3 kg.m2
Speed control tracking error	<1 rpm

price on request

[datasheet](#)

Taiwanese ADCS company in New Taipei City; CMG control moment gyroscopes, sun sensors, magnetorquers, and integrated nanosatellite attitude control systems; ISO 9001 certified.



TENSOR TECH

ADCS for SmallSats

The TensorADCS Series for smallsats extends attitude control capability to satellites from 30 kg to 1000 kg, incorporating multiple variable-speed, single-gimbal Control Moment Gyr

Voltage 28 V

Interface RS-422

price on request



TENSOR TECH

CMG for SmallSats

The TensorCMG Series features variable-speed, single-gimbal Control Moment Gyroscopes (CMGs) driven by spherical motor technology, suitable for satellites from 30 kg to 1000 kg.

Momentum 1 Nms

Torque > 3 Nm

Gimbal axis angular range Unlimited

Gimbal maneuver > 30 million

Dimensions 100 x 100 x 120 mm3

price on request



TENSOR TECH

Tensor Tech ADCS – 10m – Integrated Attitude Determination and Control System

ADCS-10m is an integrated ADCS with a variable-speed, single-gimbal Control Moment Gyroscope (CMG) which is suitable for 3U CubeSats. It delivers the same performances compared to...

Manufacturer Tensor Tech

price on request



TENSOR TECH

Tensor Tech ADCS – 20m – Integrated Attitude Determination and Control System

ADCS-20m is an integrated ADCS with two variable-speed, single-gimbal Control Moment Gyroscopes (CMG) which is suitable for 6U CubeSats. It delivers the same performances compared to...

Manufacturer Tensor Tech

price on request



TENSOR TECH

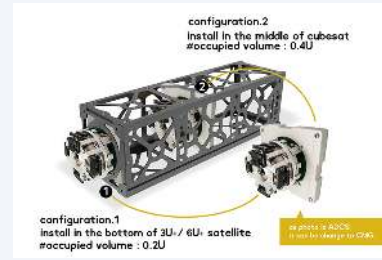
Tensor Tech ADCS – 40m – Integrated Attitude Determination and Control System

ADCS-40m is an integrated ADCS with four variable-speed, single-gimbal Control Moment Gyroscopes (CMG) which is suitable for 12U and 16U CubeSats. It delivers the same...

Manufacturer

Tensor Tech

price on request



TENSOR TECH

Tensor Tech CMG-10m Control Moment Gyroscope

CMG-10m is a variable-speed, single-gimbal Control Moment Gyroscope (CMG) which is suitable for 3U CubeSats. Unlike traditional CMGs that are driven by two or three motors, this...

Manufacturer

Tensor Tech

price on request



TENSOR TECH

Tensor Tech CMG-20m Control Moment Gyroscope

CMG-20m has two variable-speed, single-gimbal Control Moment Gyroscope (CMG) which is suitable for 6U CubeSats. Unlike traditional CMGs, each driven by two or three motors, this...

Manufacturer

Tensor Tech

price on request



TENSOR TECH

Tensor Tech CMG-40m Control Moment Gyroscope

CMG-40m has four variable-speed, single-gimbal Control Moment Gyroscope (CMG) which is suitable for 12U and 16U CubeSats. Unlike traditional CMGs, each driven by two or three...

Manufacturer

Tensor Tech

price on request



TENSOR TECH

TensorCMG-10m

The TensorCMG-10m is a variable-speed, single-gimbal Control Moment Gyroscope (CMG) designed for CubeSats up to 16U and nanosatellites up to 30kg, utilizing spherical motor technology.

Dimensions	54 x 49 x 56 mm3
Gimbal axis angular range	Unlimited
Power	1.92 W
Mass	280 g
Gimbal maneuver	> 30 million

price on request



TENSOR TECH

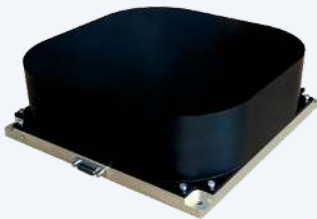
TensorCMG-10m-S

Variable-speed, single-gimbal Control Moment Gyroscope for CubeSats up to 16U and nanosatellites up to 30 kg — skew-mount version.

Dimensions	54 x 49 x 56 mm3
Gimbal axis angular range	Unlimited
Power	1.92 W
Mass	280 g
Gimbal maneuver	> 30 million

price on request

German manufacturer of space subsystems — reaction wheels, star trackers, power control, and data handling units — with over 25 years of flight heritage on small satellite missions.



VECTRONIC AEROSPACE GMBH
VRW Reaction Wheels

A modular family of space-qualified reaction wheels from VECTRONIC Aerospace, spanning 0.2 Nms to 8 Nms angular momentum, for small satellite attitude control.

Angular momentum range (series)	0.2 Nms to 8 Nms
Nominal in-orbit lifetime	>45,000 hours
Vrw-b-02 – dimensions	70 mm x 70 mm x 48 mm
Vrw-b-02 – mass	1.0 kg
Vrw-b-02 – moment of inertia (rotor)	3.4*10-4 kgm2

price on request



VECTRONIC AEROSPACE GMBH
VRW-B-02 Reaction Wheel

Compact low-momentum reaction wheel for small satellites, 0.2 Nms angular momentum.

Dimensions	70 mm x 70 mm x 48 mm
Mass	1.0 kg
Max. angular momentum	0.2 Nms
Max. torque	± 20 mNm
Max. speed	± 6000 rpm

price on request

[datasheet](#)

Manufacturers in this sector

AAC Clyde Space

Sweden · 1999 · 3 products

AAC Clyde Space provides small satellite technologies and space-based data services, offering end-to-end solutions from satellite components to data analytics for various applications.

Adcole Space (Redwire)

United States · 1957 · 1 product

Redwire is an integrated aerospace and defense company providing advanced technologies for space infrastructure, autonomous systems, and multi-domain operations to government agencies and de

Airbus Defence and Space

France · 2014 · 2 products

Airbus Defence and Space designs and manufactures satellites, spacecraft equipment, and provides related services for telecommunications, navigation, Earth observation, and space exploration

arcsec

Belgium · 1 product

Arcsec designs and manufactures star trackers and reaction wheels, with over 100 systems sold and 5 years of flight heritage.

ASPINA

Japan · 1948 · 2 products

ASPINA is the corporate brand of Shinano Kenshi Co., Ltd., a Japanese precision technology group manufacturing motors, actuators, blowers, and electronic components for space, medical, and i

Azista BST Aerospace

India · 1 product

Azista BST Aerospace is an Indo-German joint venture that mass manufactures small satellites (50-200kg) and provides end-to-end solutions for mega-constellations.

Berlin Space Technologies

Germany · 2010 · 1 product

Berlin Space Technologies (BST) designs and mass manufactures small satellite systems and technologies, providing end-to-end solutions for space missions.

Blue Canyon Technologies

United States · 2008 · 5 products

Leading provider of small satellite buses, systems, and components for commercial, civil, and government space missions, a Raytheon (RTX) business.

Bradford Space

Sweden · 2000 · 5 products

Swedish green propulsion pioneer; HPGP / LMP-103S thrusters using ADN propellant with 12% higher Isp than hydrazine; Bradford ENOVIA group.

Collins Aerospace

United States · 5 products

Collins Aerospace, an RTX company, delivers advanced avionics, communication systems, and space technology solutions to commercial aviation, defense, and space customers worldwide.

Comat

France · 1963 · 2 products

Comat is a French aerospace equipment manufacturer, part of the Hemeria group, designing flight hardware and mechanisms for small satellites, telecommunications/observation payloads, and spa

CubeSpace ADCS

South Africa · 9 products

South African manufacturer of space-proven, plug-and-play Attitude Determination and Control Systems (ADCS) for small satellites, with over a decade of flight heritage.

Dragonfly Aerospace

South Africa · 2019 · 1 product

South African manufacturer of high-performance electro-optical imaging payloads and satellite platforms for Earth observation.

EREMS

France · 1979 · 1 product

EREMS is a French SME founded in 1979, specializing in the design and realization of electronic equipment and software for high technology fields including Space.

EXA (Astro-und Feinwerktechnik)

Germany · 1993 · 14 products

German manufacturer of reaction wheels, CubeSat picosatellite deployers, and AOCS components for small satellites, based in Berlin-Adlershof.

Flywheel Aerospace

India · 1 product

Flywheel Aerospace designs and manufactures modular robotics platforms and educational kits, serving universities, research labs, and startups in India with solutions for robotics, AI, and s

Gimbal Space

United States · 1 product

Gimbal Space designs and manufactures custom attitude determination and control systems (ADCS), including integrated systems, for customers with GNC teams.

GomSpace

Denmark · 2007 · 3 products

GomSpace is a Danish CubeSat manufacturer producing satellite platforms, subsystems, and end-to-end mission solutions. Products include the NanoCom radio modules, NanoPower EPS, and complete

Microsat Systems Canada

Canada · 2 products

Microsat Systems Canada designs, builds, and operates Microsatellites. The company is also a supplier of MicroWheel Reaction Wheels.

NanoAvionics

Lithuania · 2014 · 2 products

Pre-integrated nanosatellite buses (3U–16U+ MP42), green chemical propulsion, mission integration.

Pyxis Space

Germany · 1 product

German manufacturer of miniature optoelectronic ADCS components for small satellites and CubeSats.

Shenzhen MagicCubeSat Technology (MCS)

China · 2018 · 3 products

Shenzhen MagicCubeSat Technology (MCS) builds small satellites and their core onboard units, and operates remote sensing constellations. The company runs an automated production line for sat

Space Inventor ApS

Denmark · 2015 · 1 product

Space Inventor ApS is a Danish second-generation NewSpace company providing non-ITAR CubeSat, nanosat, and microsat components, platforms, and turnkey satellite missions with full vertical i

SSBV Aerospace & Technology

Netherlands · 1985 · 1 product

SSBV Aerospace & Technology Group was a Dutch-led, technology-driven group of companies providing space and defence hardware, including smallsat subsystems, ground station equipment, and pre

Glavkosmos

Russia · 1985 · 3 products

Glavkosmos coordinates international human spaceflight projects, facilitates satellite launches, develops and supplies rocket components, and provides equipment for space crews.

Honeywell Aerospace

1906 · 2 products

Honeywell Aerospace is a major division of Honeywell International Inc. (NASDAQ: HON) — a Fortune 100 conglomerate headquartered in Charlotte, North Carolina — providing avionics, satellite

MinoSpace

China · 2017 · 1 product

Chinese commercial satellite manufacturer building Earth observation, communications, and remote sensing satellites, plus payloads, components, and ground terminal systems.

NewSpace Systems (NSS)

South Africa · 1 product

NewSpace Systems (NSS) manufactures spacecraft components and sub-systems, focusing on Guidance, Navigation, and Control (GNC) products for commercial spacecraft manufacturers globally.

Serenum Space

Czech Republic · 2020 · 1 product

SERENUM Space is a CubeSat component and BUS manufacturer, integrator, and service provider based in Brno, Czech Republic, and a commercially oriented subsidiary of VZLU AEROSPACE.

Sinclair Interplanetary (Rocket Lab)

Canada · 2001 · 5 products

Canadian manufacturer of reaction wheels and star trackers for small satellites; 200+ wheels and 78+ star trackers in orbit; part of Rocket Lab since April 2020; founded 2001.

SPUTNIX

Russia · 2011 · 5 products

SPUTNIX is a Russian manufacturer of nanosatellite and microsatellite platforms, onboard subsystems and ground infrastructure, operating as a subsidiary brand of Sitronics Group.

Tensor Tech

Taiwan · 2019 · 10 products

Taiwanese ADCS company in New Taipei City; CMG control moment gyroscopes, sun sensors, magnetorquers, and integrated nanosatellite attitude control systems; ISO 9001 certified.

VECTRONIC Aerospace GmbH

Germany · 2000 · 2 products

German manufacturer of space subsystems — reaction wheels, star trackers, power control, and data handling units — with over 25 years of flight heritage on small satellite missions.

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<https://newspacemarket.com/catalogues/reaction-wheels/>

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