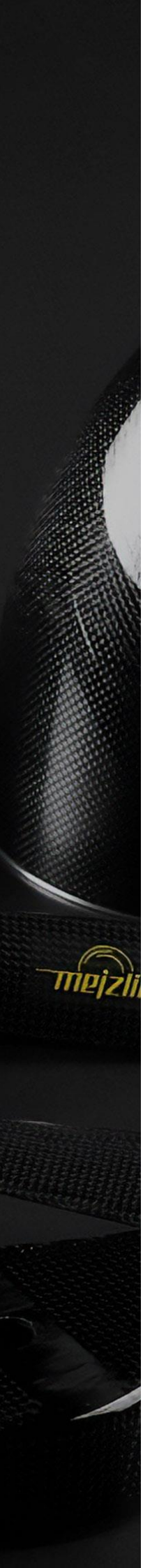

Professional Propulsion Systems

SYSTEM SPECIFICATIONS

ENGINE

Name:	**4103**
Manufacturer:	**HIRTH ENGINES**
Type:	**2-cylinder**
Displacement:	**100 cm³**
Max. performance:	**5 kW at 6500 RPM**
Weight:	**3.4 kg**
RPM range:	**2500–6500 RPM**
Running direction:	**Clockwise**

PROPELLER

Name:	**27x10 2B**
Manufacturer:	**Mejzlik**
Diameter:	**27 in**
Pitch:	**10 in**
Mass:	**219 g**
Contact:	**info@mejzlik.eu**

ANALYSIS

Need expert guidance on analyzing your flight performance?
Our team provides a comprehensive analysis of RPM calculations, motor and propeller efficiency, including customized propeller selection recommendations to ensure your system achieves maximum efficiency.

Please reach out to us at **info@mejzlik.eu** or **info@hirthengines.com**

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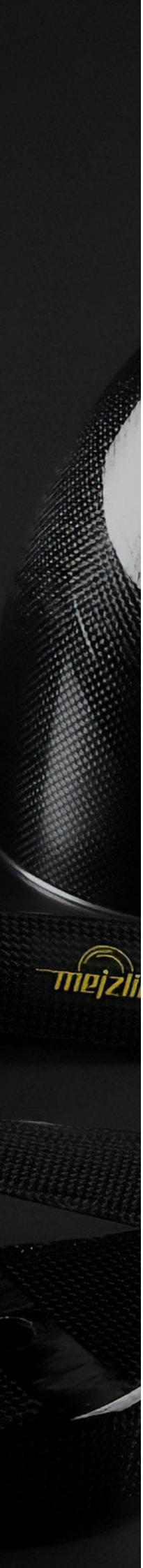
HIRTH ENGINES

mejzlik



PERFORMANCE OF THE SYSTEM

Flight velocity

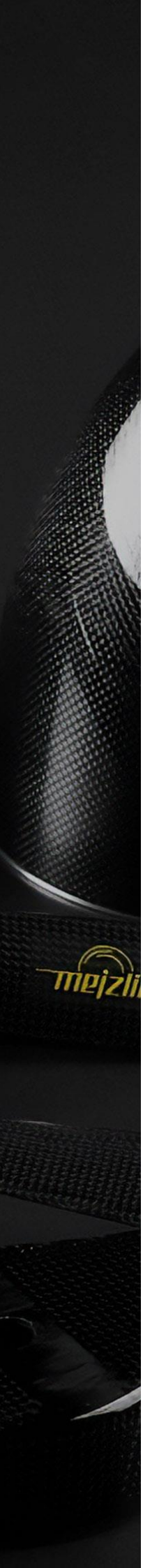
0 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	5	0.19	**20**	**0**
1700	14	0.56	**100**	**0**
2400	31	1.15	**289**	**0**
3100	55	1.97	**640**	**0**
3800	84	3.02	**1200**	**0**
4500	120	4.3	**2025**	**0**
5200	164	5.89	**3207**	**0**
5900	214	7.86	**4856**	**0**
6600	275	10.08	**6966**	**0**

Flight velocity

10 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-2	0.07	**7**	**—**
1700	4	0.37	**66**	**53**
2400	17	1.08	**272**	**64**
3100	38	2.01	**653**	**58**
3800	65	3.15	**1254**	**52**
4500	99	4.54	**2138**	**46**
5200	140	6.2	**3378**	**41**
5900	189	8.21	**5070**	**37**
6600	246	10.59	**7316**	**34**



PERFORMANCE OF THE SYSTEM

Flight velocity

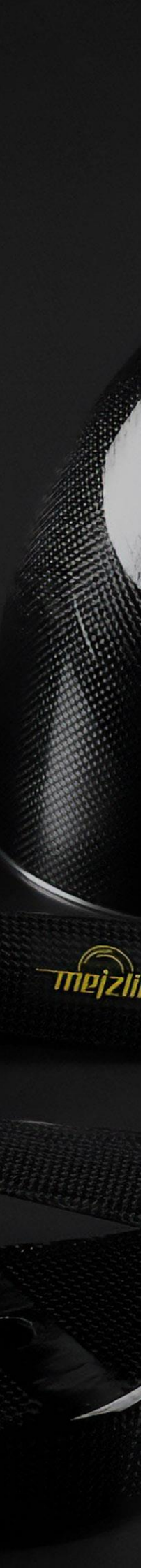
20 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-3	-0.11	**-11**	—
1700	-6	0.1	**18**	—
2400	-4	0.36	**91**	—
3100	9	1.03	**335**	**51**
3800	31	2.26	**900**	**70**
4500	61	3.78	**1779**	**69**
5200	98	5.55	**3020**	**65**
5900	143	7.62	**4706**	**61**
6600	197	10.06	**6956**	**57**

Flight velocity

30 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-5	-0.4	**-42**	—
1700	-8	-0.16	**-28**	—
2400	-13	0.14	**36**	—
3100	-12	0.48	**155**	—
3800	-6	0.66	**263**	—
4500	14	1.84	**866**	**50**
5200	46	3.69	**2011**	**69**
5900	86	5.91	**3649**	**71**
6600	135	8.47	**5851**	**69**

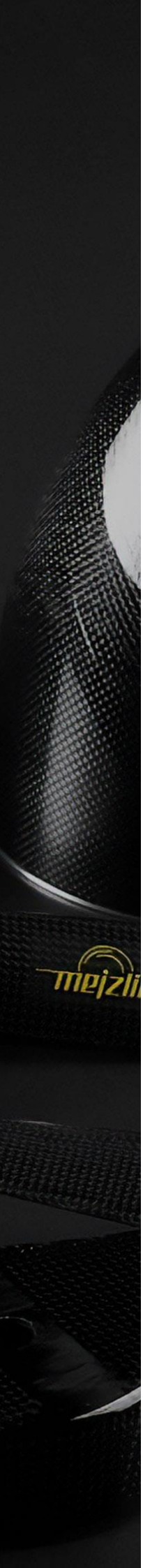


PERFORMANCE OF THE SYSTEM

Flight velocity

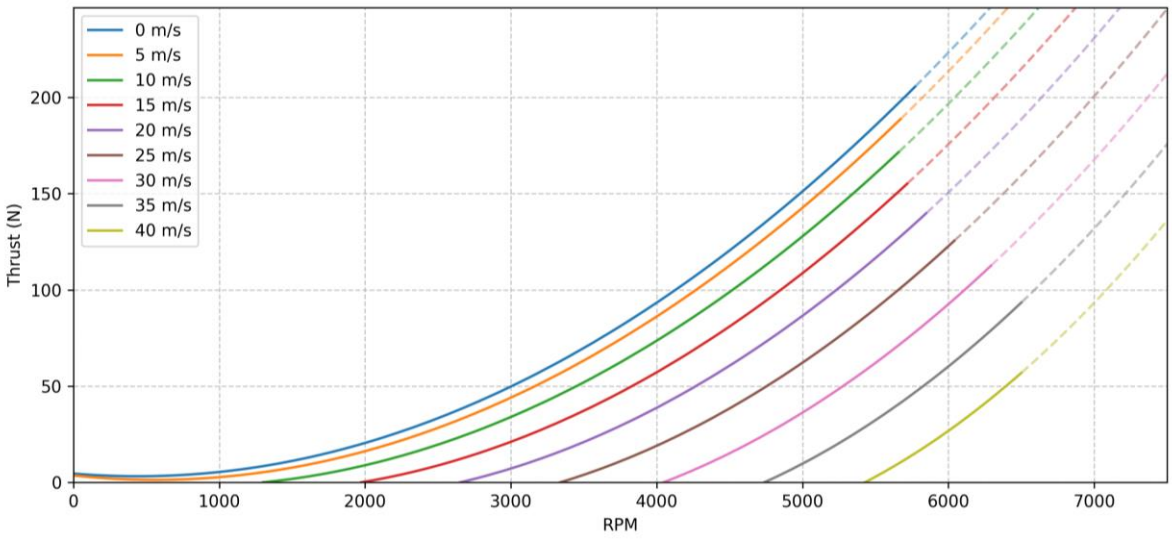
40 m/s

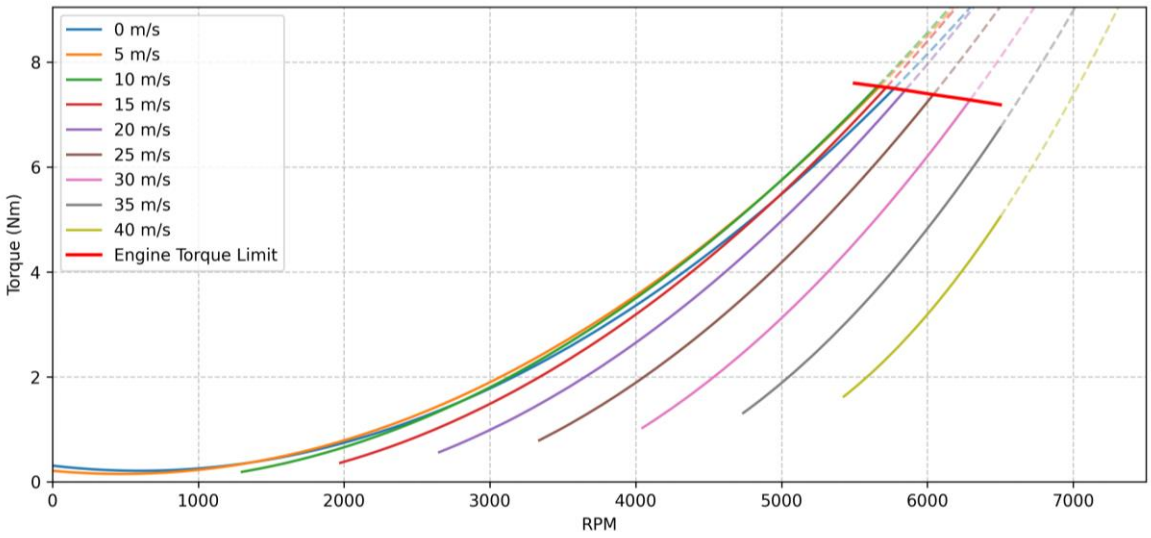
Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-7	-0.77	**-81**	**—**
1700	-10	-0.53	**-95**	**—**
2400	-16	-0.31	**-79**	**—**
3100	-22	0.14	**44**	**—**
3800	-23	0.62	**248**	**—**
4500	-21	0.72	**339**	**—**
5200	-8	1.17	**639**	**—**
5900	21	2.87	**1776**	**48**
6600	64	5.48	**3788**	**67**



PERFORMANCE OF THE SYSTEM

Hirth 4103 + Mejzlik 27x10 2B
Performance in flight





NOTE

Data presented in this product sheet are a combination of measurements of engine performance (RPM, torque), which is complemented with propeller data, simulated in Mejzliks proprietary simulation software. The greyed out values are above engine limit.

Data is valid for 0m ISA. Propeller performance simulation accuracy can diverge at higher tip speeds (above 0.7 Mach). Propeller is structurally safe to operate below Mach 1 tip speed.

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