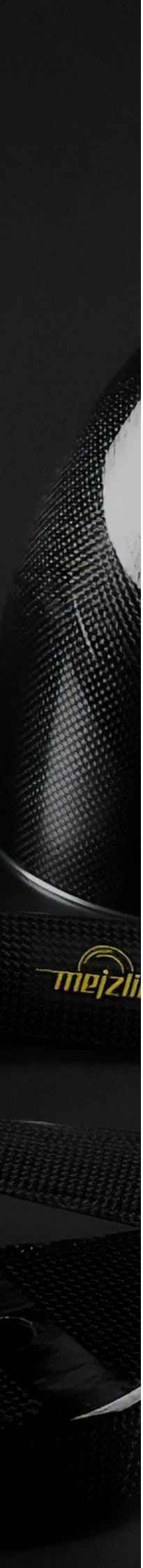


Professional Propulsion Systems

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:	**26x14 2B TH**
Manufacturer:	**Mejzlik**
Diameter:	**26 in**
Pitch:	**14 in**
Mass:	**183 g**
Contact:	**info@mejzlik.eu**

ANALYSIS

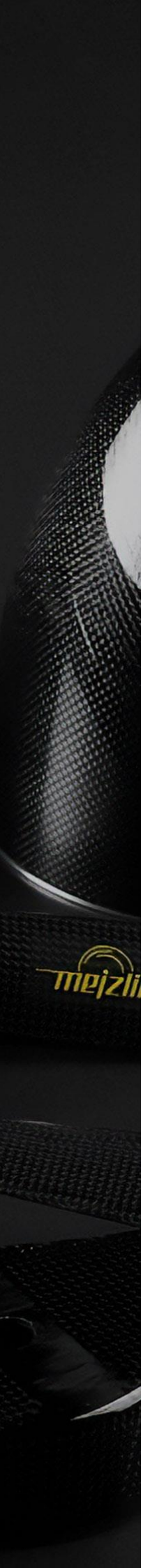
Need expert guidance on analyzing your flight performance?
Our team provides a comprehensive analysis of RPM calculations, motor and propeller efficiency, including customized propeller selection recommendations to ensure your system achieves maximum efficiency.

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

ID: **0124**

HIRTH ENGINES

mejzlik



PERFORMANCE OF THE SYSTEM

Flight velocity

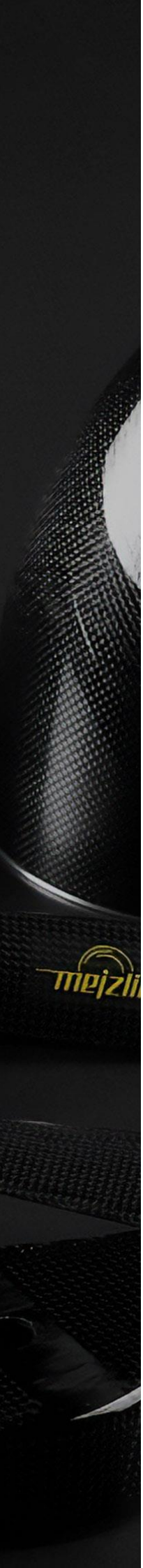
0 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	5	0.21	**22**	**0**
1700	16	0.61	**108**	**0**
2400	32	1.21	**304**	**0**
3100	55	2.03	**659**	**0**
3900	89	3.29	**1345**	**0**
4600	126	4.68	**2253**	**0**
5300	170	6.39	**3547**	**0**
5400	178	6.59	**3727**	**0**
6000	221	8.38	**5262**	**0**
6800	292	11.09	**7894**	**0**

Flight velocity

10 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-2	-0.07	**-7**	**—**
1700	6	0.46	**82**	**70**
2400	21	1.26	**316**	**67**
3100	42	2.21	**719**	**59**
3900	74	3.59	**1466**	**50**
4600	109	5.07	**2443**	**45**
5300	150	6.82	**3783**	**40**
5400	157	7.09	**4009**	**39**
6000	200	8.87	**5573**	**36**
6800	267	11.73	**8349**	**32**



PERFORMANCE OF THE SYSTEM

Flight velocity

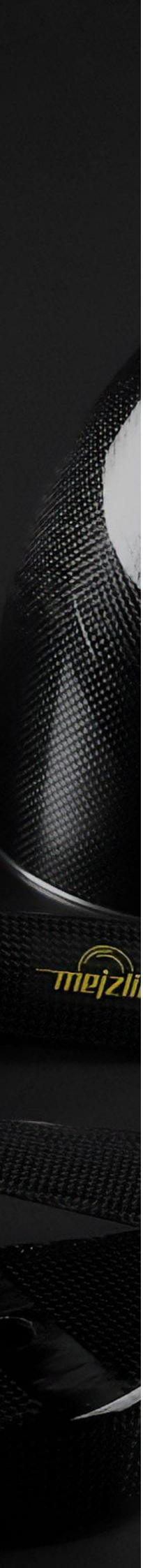
20 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-4	-0.25	**-26**	**—**
1700	-7	-0.14	**-25**	**—**
2400	-2	0.21	**53**	**—**
3100	18	1.45	**472**	**76**
3900	47	3.1	**1265**	**75**
4600	80	4.76	**2293**	**70**
5300	119	6.62	**3672**	**65**
5400	125	6.9	**3903**	**64**
6000	165	8.77	**5508**	**60**
6800	229	11.74	**8357**	**55**

Flight velocity

30 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-6	-0.64	**-67**	**—**
1700	-10	-0.5	**-89**	**—**
2400	-15	-0.32	**-80**	**—**
3100	-14	-0.2	**-65**	**—**
3900	10	1.37	**558**	**55**
4600	40	3.23	**1555**	**78**
5300	77	5.36	**2975**	**77**
5400	83	5.68	**3215**	**77**
6000	121	7.75	**4868**	**75**
6800	181	10.9	**7759**	**70**



PERFORMANCE OF THE SYSTEM

Flight velocity

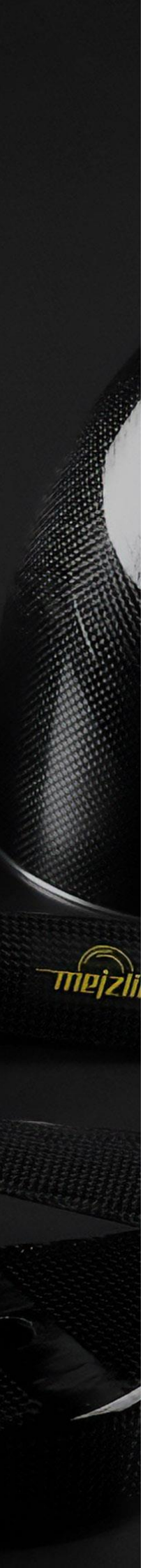
40 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-8	-1.17	**-123**	**—**
1700	-13	-1.03	**-184**	**—**
2400	-19	-0.77	**-193**	**—**
3100	-25	-0.52	**-168**	**—**
3900	-26	-0.51	**-207**	**—**
4600	-6	0.78	**374**	**—**
5300	26	2.79	**1546**	**67**
5400	31	3.11	**1760**	**71**
6000	66	5.32	**3342**	**79**
6800	122	8.78	**6249**	**78**

Flight velocity

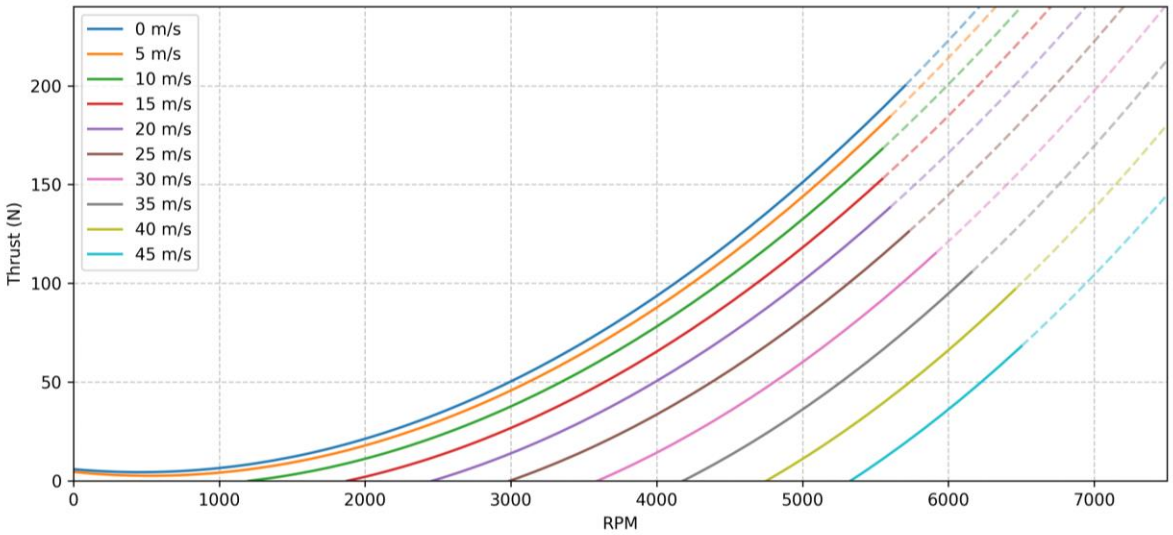
50 m/s

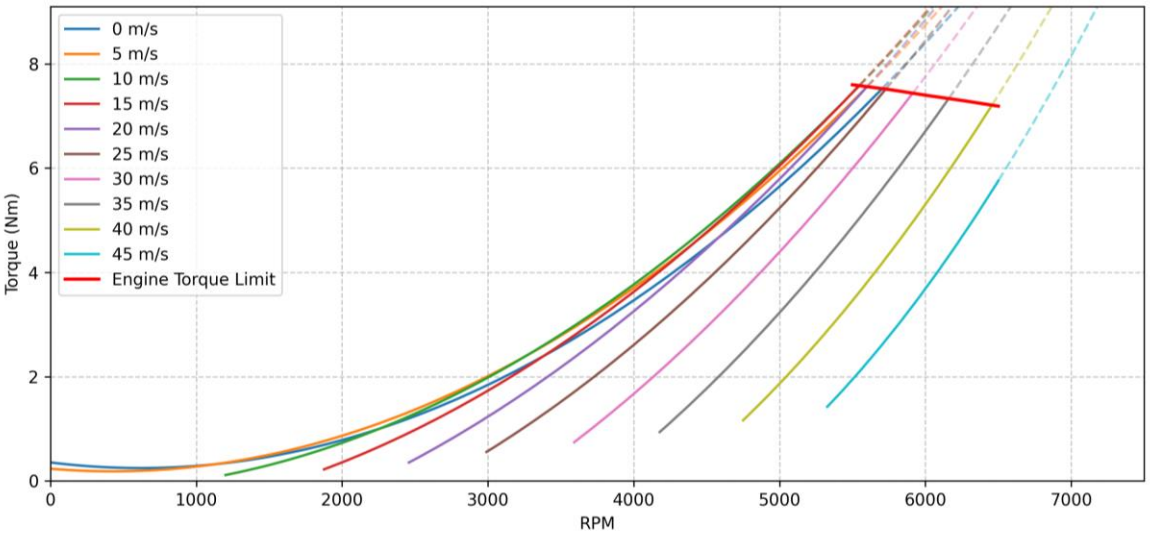
Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-10	-1.83	**-192**	**—**
1700	-15	-1.66	**-296**	**—**
2400	-22	-1.41	**-354**	**—**
3100	-30	-1.1	**-357**	**—**
3900	-40	-0.85	**-347**	**—**
4600	-44	-0.95	**-457**	**—**
5300	-28	0	**-1**	**—**
5400	-24	0.24	**134**	**—**
6000	5	2	**1254**	**20**
6800	55	5.25	**3742**	**73**



PERFORMANCE OF THE SYSTEM

Hirth 4103 + Mejzlik 26x14 2B TH
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.

ID: 0124