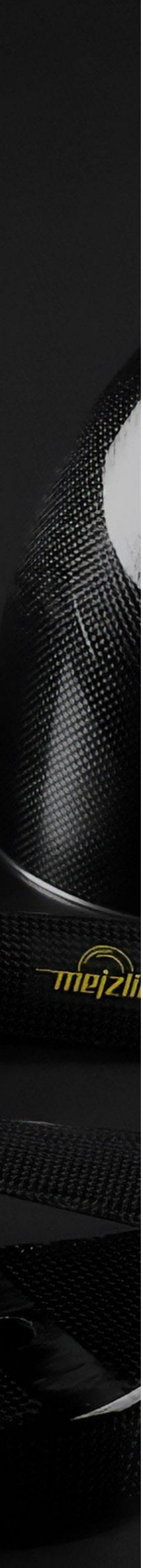

Professional Propulsion Systems

SYSTEM SPECIFICATIONS

ENGINE

Name:	**4201**
Manufacturer:	**HIRTH ENGINES**
Type:	**2-cylinder, two stroke**
Displacement:	**183 cm³**
Max. performance:	**11 kW at 6500 RPM**
Weight:	**5.7 kg**
RPM range:	**1800–6500 RPM**
Running direction:	**Clockwise**

PROPELLER

Name:	**30x12 2B**
Manufacturer:	**Mejzlik**
Diameter:	**30 in**
Pitch:	**12 in**
Mass:	**286 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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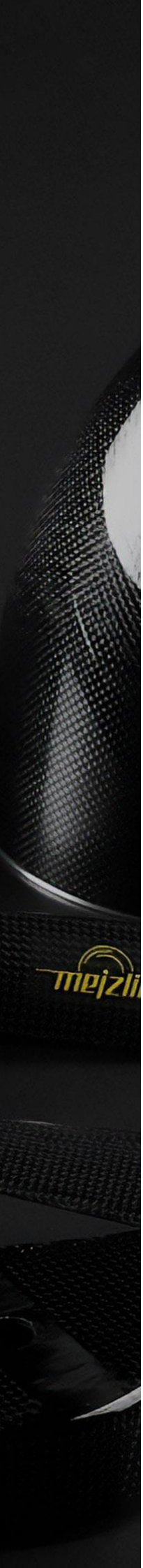
HIRTH ENGINES

mejzlik



PERFORMANCE OF THE SYSTEM

Flight velocity

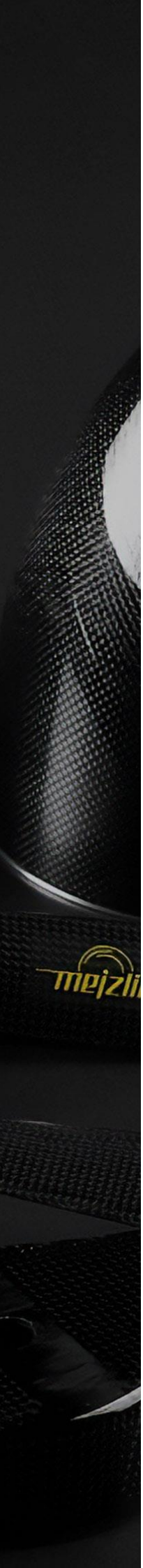
0 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	8	0.34	**36**	**0**
1600	21	0.91	**153**	**0**
2200	44	1.82	**418**	**0**
2800	75	3.09	**906**	**0**
3400	113	4.62	**1646**	**0**
4000	160	6.63	**2775**	**0**
4600	216	8.87	**4271**	**0**
5200	285	11.75	**6399**	**0**
5900	375	15.65	**9670**	**0**

Flight velocity

10 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-1	0.22	**23**	**—**
1600	6	0.63	**105**	**61**
2200	25	1.70	**393**	**65**
2800	54	3.14	**921**	**59**
3400	89	4.81	**1713**	**52**
4000	133	6.82	**2859**	**47**
4600	186	9.25	**4456**	**42**
5200	248	12.14	**6610**	**37**
5900	333	16.15	**9981**	**33**



PERFORMANCE OF THE SYSTEM

Flight velocity

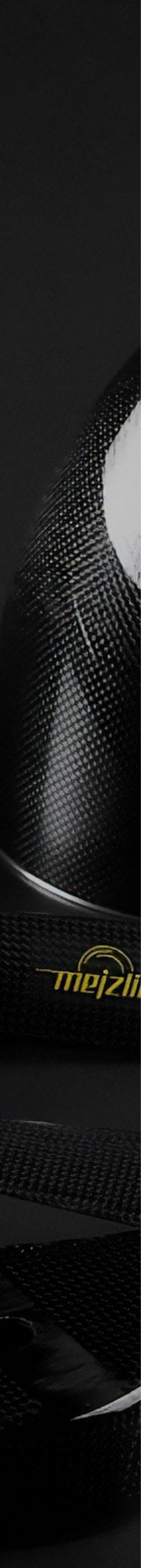
20 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-3	0.13	**14**	**—**
1600	-4	0.56	**94**	**—**
2200	-1	0.53	**121**	**—**
2800	17	1.71	**501**	**69**
3400	47	3.56	**1268**	**74**
4000	85	5.73	**2399**	**71**
4600	132	8.25	**3974**	**66**
5200	189	11.22	**6108**	**62**
5900	269	15.32	**9465**	**57**

Flight velocity

30 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-5	-0.08	**-9**	**—**
1600	-8	0.37	**61**	**—**
2200	-10	1.01	**233**	**—**
2800	-7	1.35	**397**	**—**
3400	-1	0.76	**272**	**—**
4000	30	3.03	**1270**	**70**
4600	70	5.79	**2789**	**76**
5200	121	8.97	**4885**	**75**
5900	194	13.24	**8180**	**71**



PERFORMANCE OF THE SYSTEM

Flight velocity

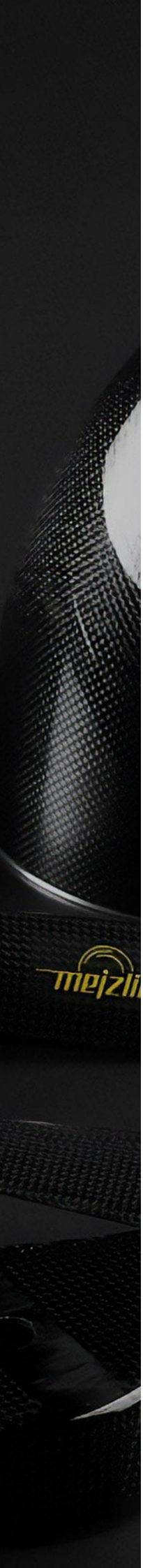
40 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-7	-0.36	**-38**	—
1600	-10	0.10	**17**	—
2200	-13	0.77	**177**	—
2800	-16	1.67	**488**	—
3400	-14	2.38	**847**	—
4000	-14	1.12	**471**	—
4600	2	1.40	**677**	**12**
5200	44	4.76	**2591**	**69**
5900	108	9.25	**5715**	**75**

Flight velocity

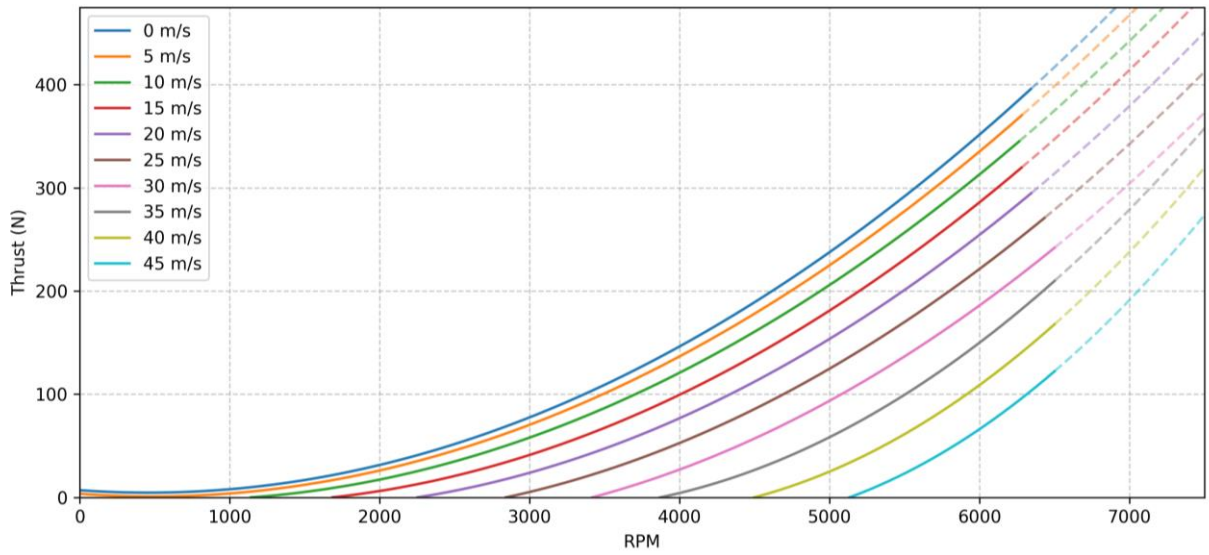
50 m/s

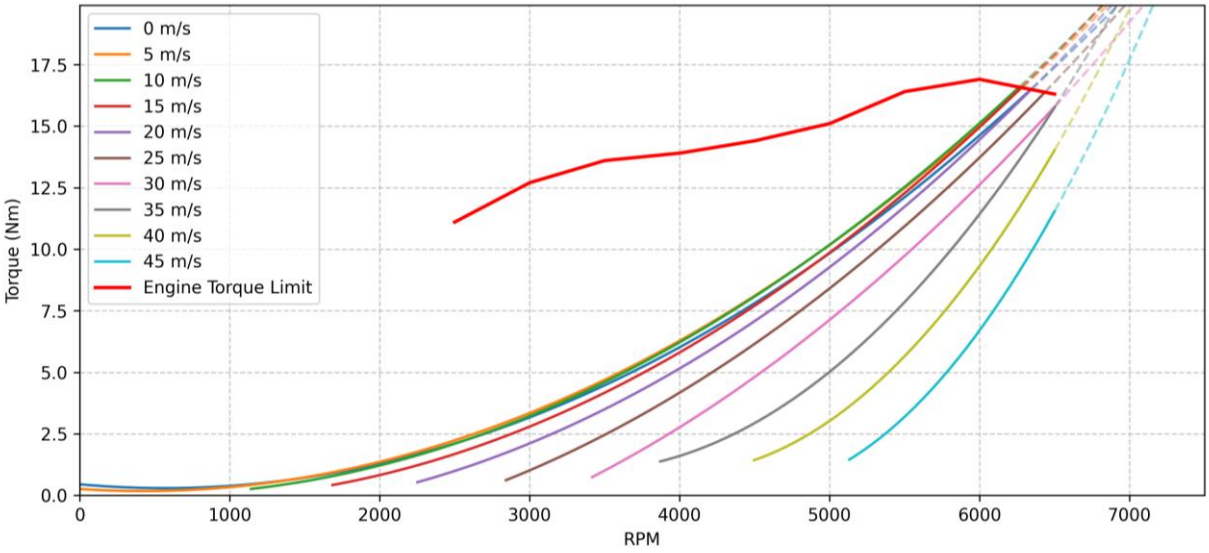
Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-9	-0.72	**-76**	—
1600	-12	-0.24	**-41**	—
2200	-16	0.44	**101**	—
2800	-20	1.40	**410**	—
3400	-24	2.47	**878**	—
4000	-26	3.00	**1255**	—
4600	-34	1.08	**519**	—
5200	-30	-0.23	**-127**	—
5900	15	3.19	**1972**	**39**



PERFORMANCE OF THE SYSTEM

Hirth 4201 + Mejzlik 30x12 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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