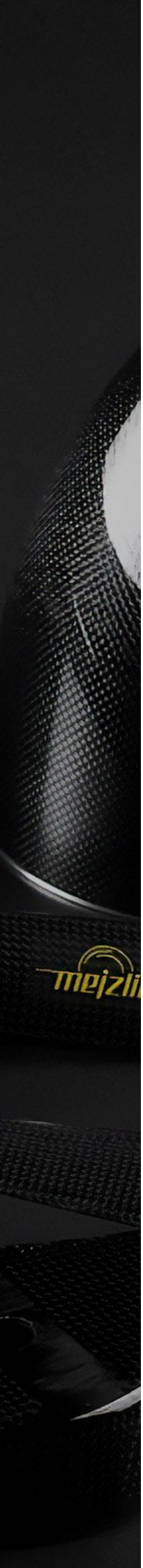


Professional Propulsion Systems

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:	**30x13 3B EVO**
Manufacturer:	**Mejzlik**
Diameter:	**30 in**
Pitch:	**13 in**
Mass:	**403 g**
Contact:	**info@mejzlik.eu**

ANALYSIS

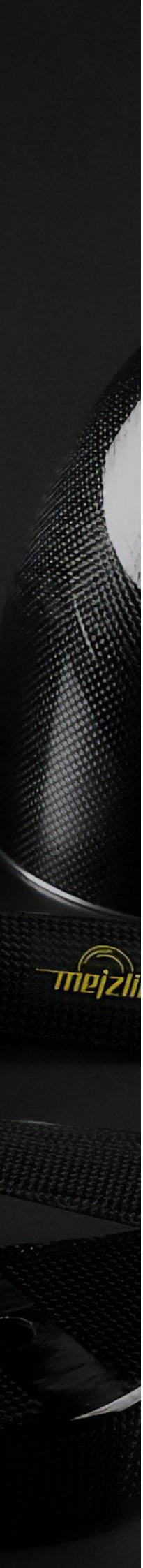
Need expert guidance on analyzing your flight performance?
Our team provides a comprehensive analysis of RPM calculations, motor and propeller efficiency, including customized propeller selection recommendations to ensure your system achieves maximum efficiency.

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

ID: 0115

HIRTH ENGINES

mejzlik



PERFORMANCE OF THE SYSTEM

Flight velocity

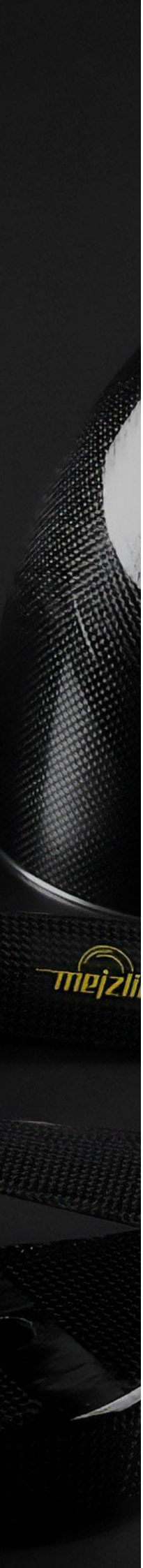
0 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	9	0.38	**40**	**0**
1600	24	0.99	**166**	**0**
2200	46	1.90	**437**	**0**
2800	77	3.16	**925**	**0**
3400	114	4.70	**1673**	**0**
4000	161	6.57	**2751**	**0**
4600	215	8.85	**4261**	**0**
5200	277	11.61	**6323**	**0**
5900	366	15.46	**9554**	**0**

Flight velocity

10 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-3	0.00	**0**	**—**
1600	7	0.66	**111**	**66**
2200	27	1.79	**412**	**66**
2800	56	3.25	**954**	**59**
3400	91	4.93	**1757**	**52**
4000	134	6.94	**2907**	**46**
4600	185	9.35	**4503**	**41**
5200	246	12.21	**6651**	**37**
5900	330	16.20	**10010**	**33**



PERFORMANCE OF THE SYSTEM

Flight velocity

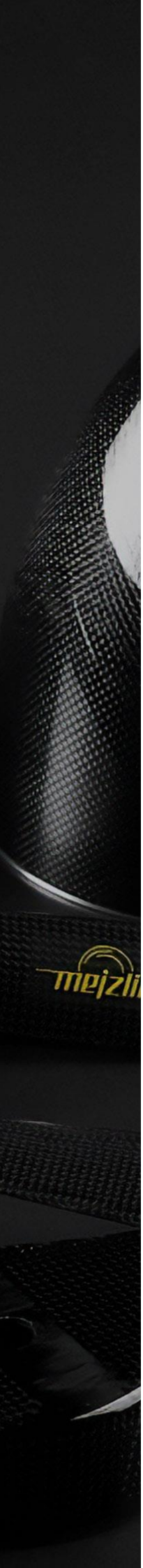
20 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-6	-0.25	**-26**	—
1600	-10	-0.04	**-7**	—
2200	-4	0.26	**59**	—
2800	19	1.78	**522**	**71**
3400	49	3.72	**1324**	**75**
4000	89	5.95	**2494**	**71**
4600	137	8.56	**4122**	**66**
5200	194	11.55	**6292**	**62**
5900	273	15.64	**9661**	**56**

Flight velocity

30 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-8	-0.73	**-77**	—
1600	-14	-0.41	**-68**	—
2200	-19	0.02	**5**	—
2800	-14	0.46	**134**	—
3400	0	0.92	**328**	—
4000	33	3.29	**1377**	**71**
4600	76	6.13	**2955**	**77**
5200	127	9.39	**5113**	**75**
5900	200	13.71	**8471**	**71**



PERFORMANCE OF THE SYSTEM

Flight velocity

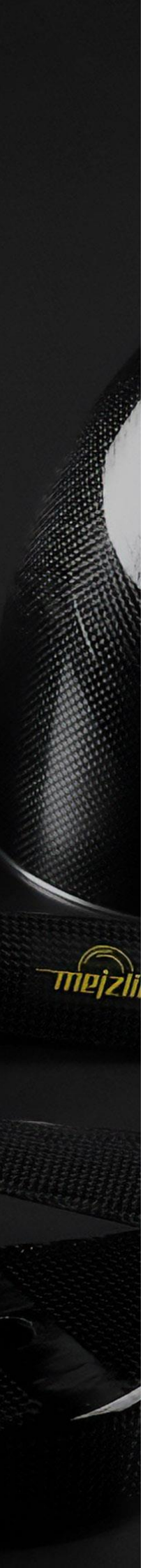
40 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-11	-1.35	**-141**	—
1600	-16	-1.04	**-174**	—
2200	-24	-0.52	**-119**	—
2800	-30	0.23	**67**	—
3400	-27	0.93	**330**	—
4000	-21	0.26	**110**	—
4600	5	1.90	**915**	**24**
5200	51	5.33	**2904**	**70**
5900	117	9.89	**6108**	**76**

Flight velocity

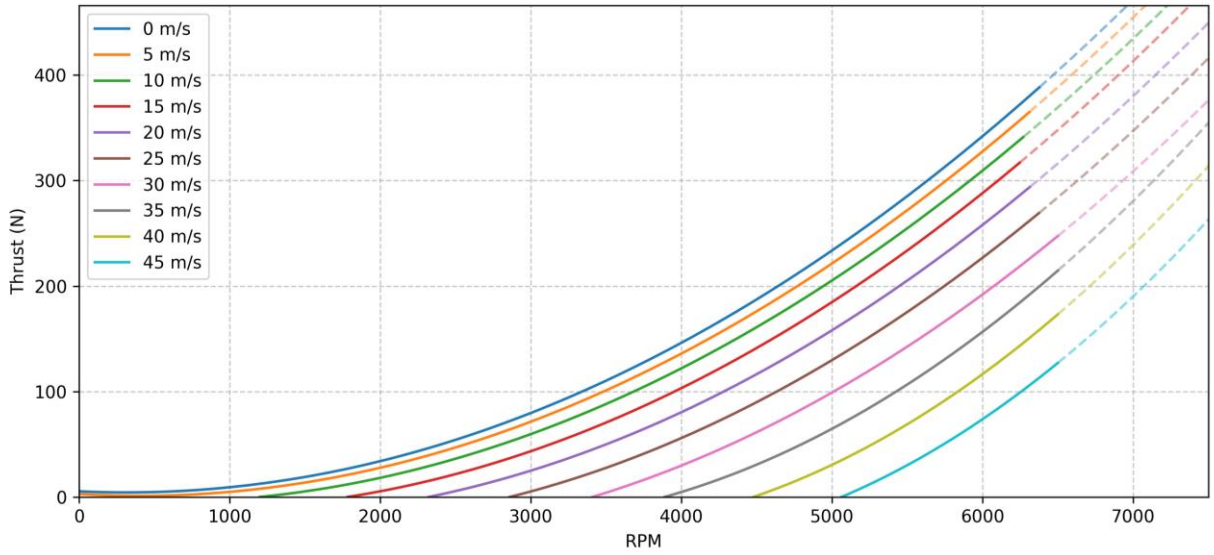
50 m/s

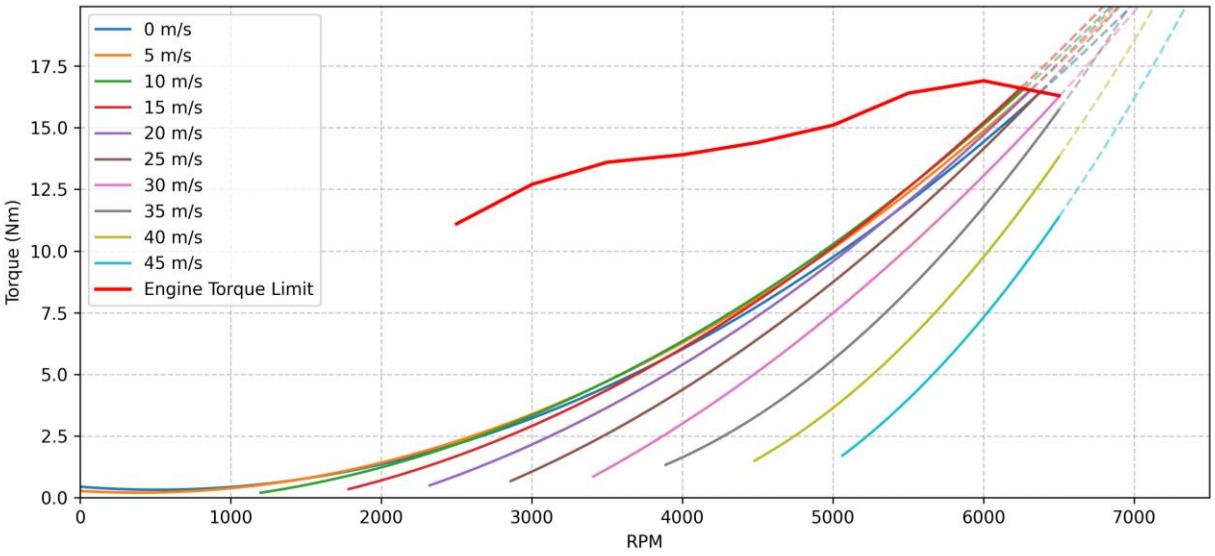
Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-14	-2.14	**-224**	—
1600	-20	-1.84	**-308**	—
2200	-27	-1.29	**-298**	—
2800	-36	-0.47	**-138**	—
3400	-42	0.53	**187**	—
4000	-43	1.24	**519**	—
4600	-42	0.35	**169**	—
5200	-30	-0.18	**-100**	—
5900	23	4.11	**2536**	**45**



PERFORMANCE OF THE SYSTEM

Hirth 4201 + Mejzlik 30x13 2B EVO
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: **0115**