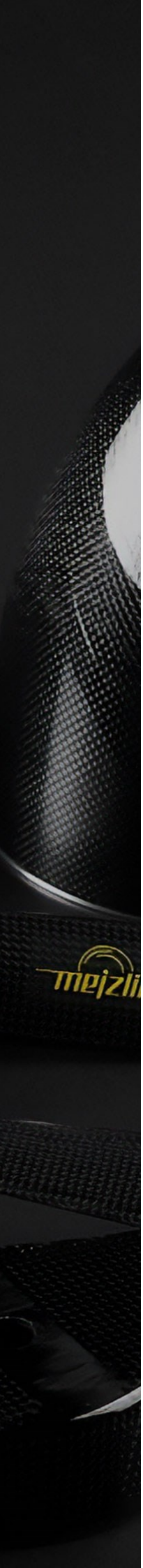


Professional Propulsion Systems

SYSTEM SPECIFICATIONS

ENGINE

Name:	**4202HF**
Manufacturer:	**HIRTH ENGINES**
Type:	**2-cylinder**
Displacement:	**183 cm³**
Max. performance:	**11 kW at 6500 RPM**
Weight:	**11.5 kg**
RPM range:	**2500–6500 RPM**
Running direction:	**Clockwise**

PROPELLER

Name:	**30x13 EVO 2B**
Manufacturer:	**Mejzlik**
Diameter:	**30 in**
Pitch:	**13 in**
Mass:	**295 g**
Contact:	**info@mejzlik.eu**

ANALYSIS

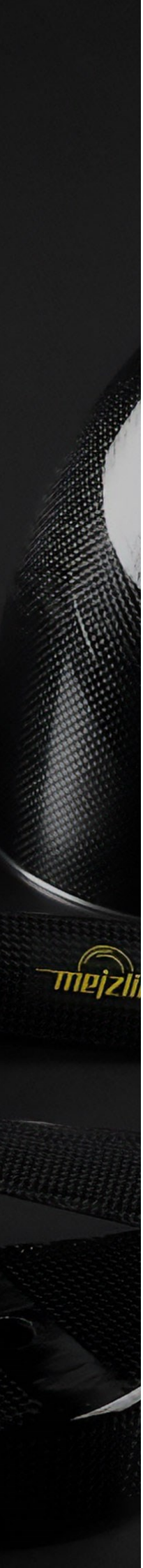
Need expert guidance on analyzing your flight performance?
Our team provides a comprehensive analysis of RPM calculations, motor and propeller efficiency, including customized propeller selection recommendations to ensure your system achieves maximum efficiency.

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

ID: **0098**

HIRTH ENGINES

mejzlik



PERFORMANCE OF THE SYSTEM

Flight velocity

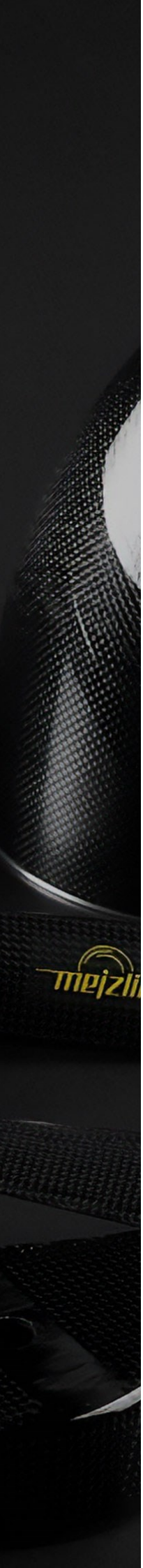
0 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
2500	60	2.40	**629**	**0**
2750	73	2.95	**850**	**0**
3000	88	3.53	**1110**	**0**
3250	103	4.11	**1398**	**0**
3500	119	4.83	**1772**	**0**
3750	137	5.66	**2223**	**0**
4000	159	6.32	**2649**	**0**
4250	180	7.32	**3258**	**0**
4500	202	8.28	**3903**	**0**
4750	227	9.35	**4652**	**0**
5000	254	10.42	**5454**	**0**
5250	281	11.63	**6394**	**0**
5500	312	12.80	**7374**	**0**
5750	347	14.38	**8660**	**0**
6000	378	15.91	**9994**	**0**
6250	409	17.56	**11495**	**0**
6500	452	19.18	**13052**	**0**

Flight velocity

10 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
2500	41	2.47	**645**	**63**
2750	53	3.08	**886**	**60**
3000	67	3.72	**1170**	**57**
3250	81	4.42	**1503**	**54**
3500	97	5.17	**1894**	**51**
3750	115	5.98	**2347**	**49**
4000	133	6.85	**2870**	**47**
4250	154	7.79	**3465**	**44**
4500	175	8.79	**4144**	**42**
4750	198	9.87	**4912**	**40**
5000	223	11.03	**5778**	**39**
5250	250	12.28	**6750**	**37**
5500	278	13.62	**7843**	**35**
5750	308	15.05	**9063**	**34**
6000	341	16.59	**10422**	**33**
6250	375	18.24	**11935**	**31**
6500	412	20.03	**13631**	**30**



PERFORMANCE OF THE SYSTEM

Flight velocity

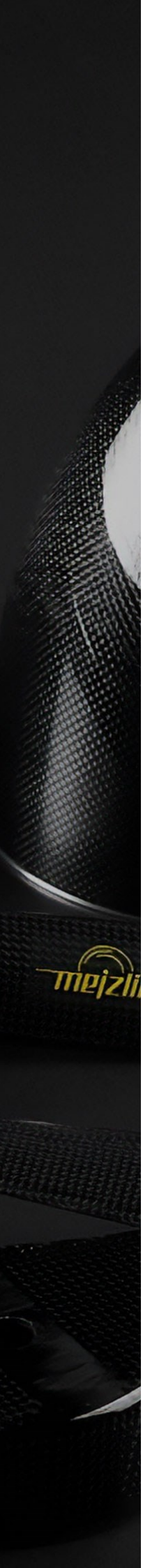
20 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
2500	5	0.77	**201**	**53**
2750	16	1.51	**436**	**73**
3000	28	2.29	**719**	**77**
3250	41	3.12	**1062**	**77**
3500	55	4.00	**1465**	**76**
3750	71	4.91	**1929**	**74**
4000	89	5.87	**2458**	**72**
4250	107	6.87	**3055**	**70**
4500	127	7.92	**3733**	**68**
4750	149	9.06	**4504**	**66**
5000	173	10.32	**5402**	**64**
5250	199	11.65	**6406**	**62**
5500	226	13.05	**7518**	**60**
5750	255	14.56	**8766**	**58**
6000	286	16.16	**10153**	**56**
6250	319	17.85	**11682**	**55**
6500	353	19.64	**13370**	**53**

Flight velocity

30 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
2500	-22	-0.49	**-129**	**—**
2750	-21	-0.82	**-236**	**—**
3000	-17	-0.69	**-218**	**—**
3250	-8	0.03	**12**	**—**
3500	4	0.99	**364**	**31**
3750	18	2.04	**801**	**67**
4000	33	3.17	**1327**	**75**
4250	50	4.36	**1942**	**78**
4500	69	5.59	**2636**	**78**
4750	89	6.87	**3420**	**78**
5000	110	8.22	**4304**	**77**
5250	133	9.63	**5294**	**76**
5500	158	11.11	**6397**	**74**
5750	185	12.66	**7622**	**73**
6000	213	14.30	**8985**	**71**
6250	243	16.05	**10502**	**69**
6500	276	17.89	**12180**	**68**



PERFORMANCE OF THE SYSTEM

Flight velocity

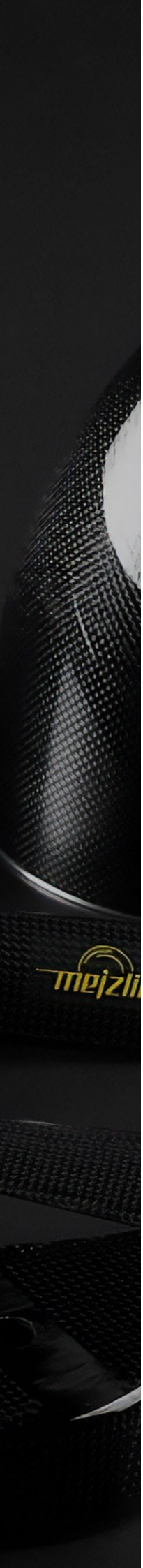
40 m/s

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
2500	-31	-0.79	**-207**	—
2750	-34	-0.71	**-204**	—
3000	-36	-0.81	**-255**	—
3250	-41	-1.76	**-598**	—
3500	-40	-1.95	**-715**	—
3750	-33	-1.51	**-592**	—
4000	-28	-1.32	**-553**	—
4250	-15	-0.17	**-76**	—
4500	1	1.11	**525**	**4**
4750	18	2.50	**1245**	**57**
5000	37	3.99	**2087**	**71**
5250	58	5.54	**3046**	**76**
5500	80	7.17	**4128**	**78**
5750	105	8.86	**5337**	**78**
6000	131	10.64	**6687**	**78**
6250	159	12.50	**8181**	**78**
6500	189	14.45	**9834**	**77**

Flight velocity

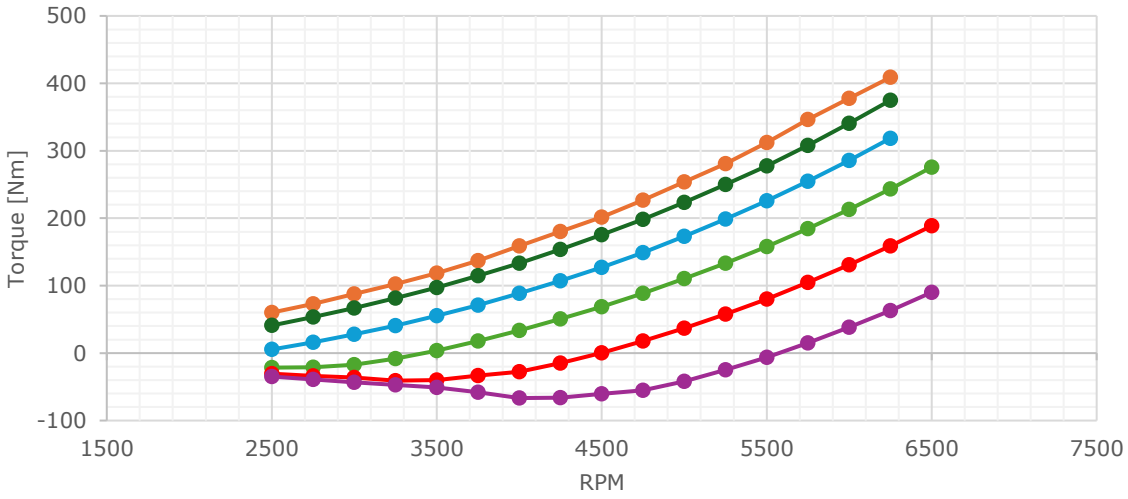
50 m/s

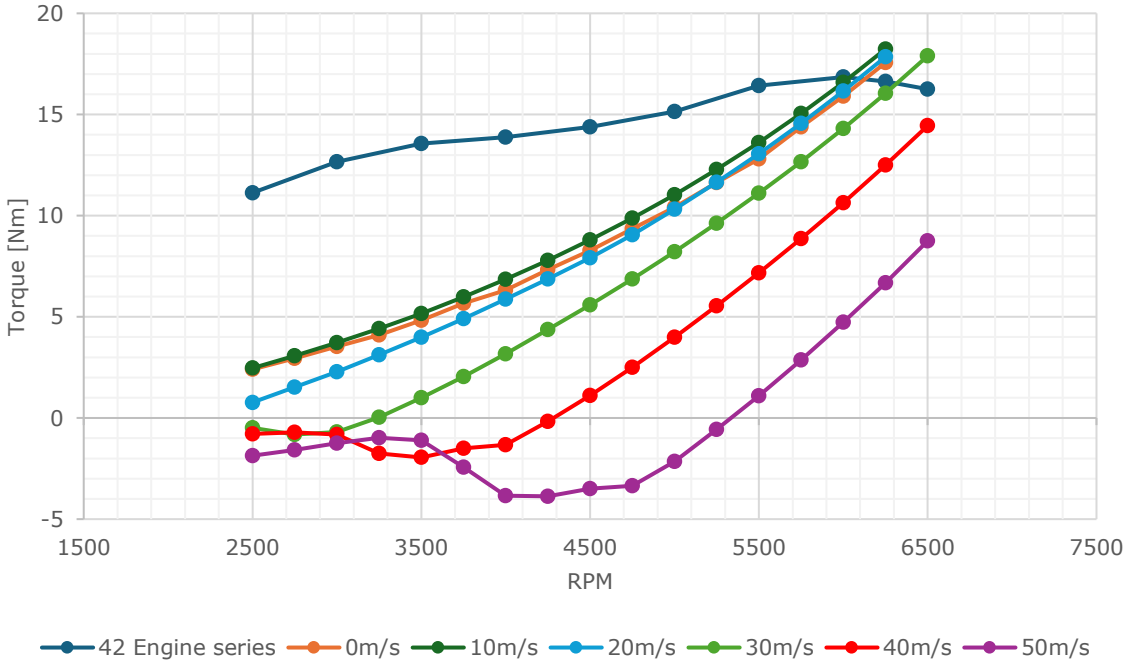
Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
2500	-35	-1.87	**-489**	—
2750	-39	-1.58	**-456**	—
3000	-43	-1.25	**-394**	—
3250	-47	-0.98	**-333**	—
3500	-51	-1.10	**-404**	—
3750	-58	-2.43	**-954**	—
4000	-67	-3.83	**-1606**	—
4250	-66	-3.87	**-1723**	—
4500	-61	-3.50	**-1647**	—
4750	-55	-3.35	**-1665**	—
5000	-42	-2.15	**-1124**	—
5250	-25	-0.56	**-310**	—
5500	-6	1.10	**633**	—
5750	15	2.86	**1724**	**44**
6000	38	4.73	**2971**	**64**
6250	63	6.68	**4373**	**72**
6500	90	8.75	**5958**	**76**



PERFORMANCE OF THE SYSTEM

Hirth 42 series + Mejzlik 30x13 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.