

# Professional Propulsion Systems

## SYSTEM SPECIFICATIONS

### ENGINE



Name:	<b>4201</b>
Manufacturer:	<b>HIRTH ENGINES</b>
Type:	<b>2-cylinder, two stroke</b>
Displacement:	<b>183 cm<sup>3</sup></b>
Max. performance:	<b>11 kW at 6500 RPM</b>
Weight:	<b>5.7 kg</b>
RPM range:	<b>1800–6500 RPM</b>
Running direction:	<b>Clockwise</b>

### PROPELLER



Name:	<b>32x10 2B</b>
Manufacturer:	<b>Mejzlik</b>
Diameter:	<b>32 in</b>
Pitch:	<b>10 in</b>
Mass:	<b>324 g</b>
Contact:	<a href="mailto:info@mejzlik.eu">info@mejzlik.eu</a>

### 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](mailto:info@mejzlik.eu) or [info@hirthengines.com](mailto:info@hirthengines.com)

ID: **0116**



# PERFORMANCE OF THE SYSTEM

Flight velocity

**0 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	9	0.39	<b>40</b>	<b>0</b>
1500	22	0.88	<b>138</b>	<b>0</b>
2100	46	1.80	<b>396</b>	<b>0</b>
2600	73	2.82	<b>768</b>	<b>0</b>
3200	111	4.31	<b>1445</b>	<b>0</b>
3800	160	6.24	<b>2481</b>	<b>0</b>
4300	207	8.11	<b>3653</b>	<b>0</b>
4900	274	10.79	<b>5538</b>	<b>0</b>
5500	353	14.10	<b>8120</b>	<b>0</b>

Flight velocity

**10 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-3	0.06	<b>6</b>	—
1500	3	0.45	<b>71</b>	<b>43</b>
2100	23	1.61	<b>355</b>	<b>66</b>
2600	48	2.81	<b>764</b>	<b>62</b>
3200	83	4.50	<b>1508</b>	<b>55</b>
3800	128	6.57	<b>2614</b>	<b>49</b>
4300	173	8.59	<b>3870</b>	<b>45</b>
4900	236	11.46	<b>5879</b>	<b>40</b>
5500	311	14.89	<b>8573</b>	<b>36</b>

# PERFORMANCE OF THE SYSTEM

Flight velocity

**20 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-7	-0.30	<b>-31</b>	—
1500	-11	-0.01	<b>-2</b>	—
2100	-7	0.34	<b>74</b>	—
2600	6	1.00	<b>271</b>	<b>42</b>
3200	36	3.02	<b>1011</b>	<b>72</b>
3800	76	5.35	<b>2131</b>	<b>72</b>
4300	116	7.53	<b>3393</b>	<b>69</b>
4900	174	10.54	<b>5410</b>	<b>64</b>
5500	243	14.08	<b>8108</b>	<b>60</b>

Flight velocity

**30 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-9	-0.94	<b>-98</b>	—
1500	-14	-0.57	<b>-89</b>	—
2100	-20	-0.01	<b>-2</b>	—
2600	-20	0.39	<b>107</b>	—
3200	-12	0.64	<b>215</b>	—
3800	11	1.92	<b>762</b>	<b>45</b>
4300	47	4.42	<b>1992</b>	<b>70</b>
4900	98	7.75	<b>3977</b>	<b>74</b>
5500	161	11.55	<b>6651</b>	<b>73</b>

# PERFORMANCE OF THE SYSTEM

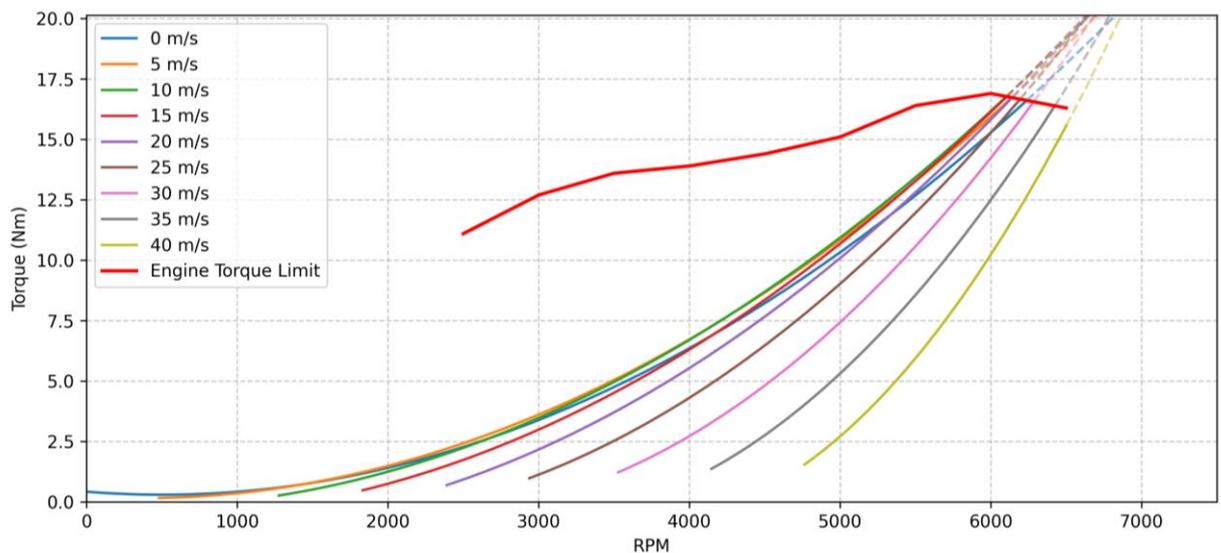
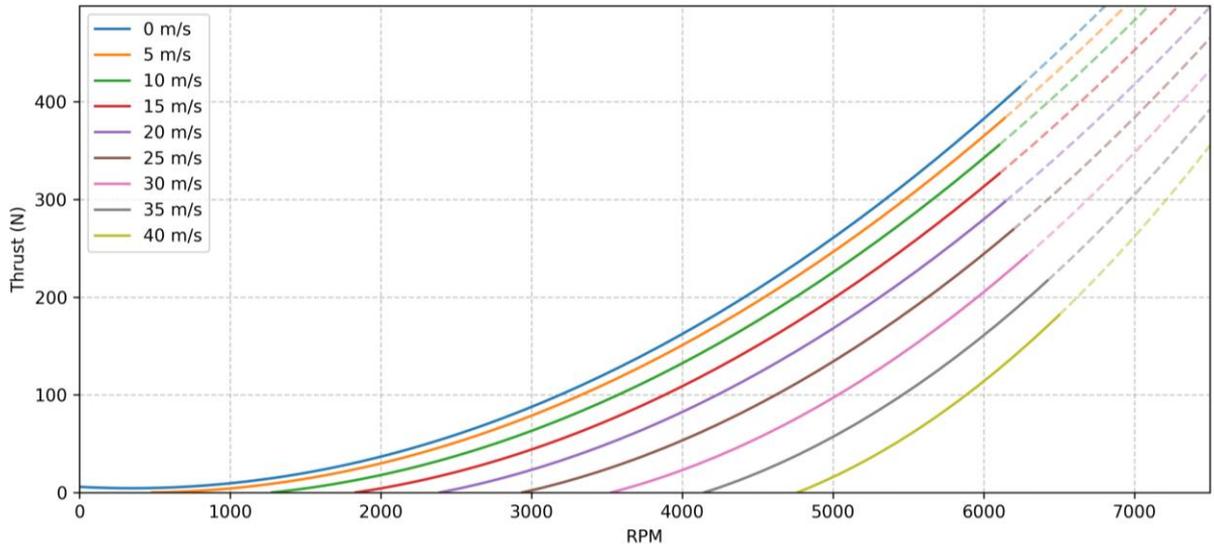
Flight velocity

**40 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-12	-1.74	<b>-182</b>	—
1500	-17	-1.32	<b>-208</b>	—
2100	-24	-0.58	<b>-128</b>	—
2600	-32	-0.14	<b>-39</b>	—
3200	-35	0.45	<b>150</b>	—
3800	-31	0.63	<b>251</b>	—
4300	-25	-0.06	<b>-27</b>	—
4900	10	2.41	<b>1238</b>	<b>31</b>
5500	65	6.55	<b>3773</b>	<b>68</b>

# PERFORMANCE OF THE SYSTEM

## Hirth 4201 + Mejzlik 32x10 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 Mejzlik's 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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