

# Professional Propulsion Systems

## SYSTEM SPECIFICATIONS

### ENGINE



Name:	<b>101HS</b>
Manufacturer:	<b>ZANZOTTERA ENGINES</b>
Type:	<b>2-cylinder</b>
Displacement:	<b>116 cm<sup>3</sup></b>
Max. performance:	<b>8,2 kW at 7000 RPM</b>
Weight:	<b>7,22 Kg</b>
Max RPM:	<b>7000 RPM</b>
Running direction:	<b>Clockwise</b>

### PROPELLER



Name:	<b>28x11 2B CCW (Direction guide)</b>
Manufacturer:	<b>Mejzlik</b>
Diameter:	<b>28 in</b>
Pitch:	<b>11 in</b>
Mass:	<b>278 g</b>
Contact:	<b>info@mejzlik.eu</b>

### 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 [idanbi@zanzotteraengines.com](mailto:idanbi@zanzotteraengines.com)

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# PERFORMANCE OF THE SYSTEM

Flight velocity

**0 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	6	0.23	<b>24</b>	<b>0</b>
1600	16	0.58	<b>97</b>	<b>0</b>
2300	34	1.23	<b>296</b>	<b>0</b>
2900	55	1.95	<b>592</b>	<b>0</b>
3600	86	3.05	<b>1149</b>	<b>0</b>
4300	127	4.35	<b>1960</b>	<b>0</b>
4900	166	5.92	<b>3040</b>	<b>0</b>
5000	173	6.17	<b>3228</b>	<b>0</b>
5600	219	7.92	<b>4644</b>	<b>0</b>
6300	286	10.41	<b>6871</b>	<b>0</b>

Flight velocity

**10 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-2	0.01	<b>1</b>	—
1600	3	0.32	<b>54</b>	<b>58</b>
2300	18	1.12	<b>270</b>	<b>68</b>
2900	38	1.99	<b>604</b>	<b>63</b>
3600	67	3.21	<b>1210</b>	<b>55</b>
4300	103	4.67	<b>2105</b>	<b>49</b>
4900	140	6.17	<b>3165</b>	<b>44</b>
5000	147	6.44	<b>3372</b>	<b>43</b>
5600	192	8.26	<b>4845</b>	<b>40</b>
6300	253	10.78	<b>7115</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	-4	-0.17	<b>-18</b>	—
1600	-7	0.03	<b>5</b>	—
2300	-6	-0.07	<b>-17</b>	—
2900	7	0.77	<b>234</b>	<b>59</b>
3600	31	2.2	<b>830</b>	<b>75</b>
4300	63	3.86	<b>1740</b>	<b>73</b>
4900	97	5.51	<b>2825</b>	<b>69</b>
5000	104	5.8	<b>3038</b>	<b>68</b>
5600	145	7.73	<b>4533</b>	<b>64</b>
6300	202	10.34	<b>6824</b>	<b>59</b>

Flight velocity

**30 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-6	-0.52	<b>-54</b>	—
1600	-9	-0.28	<b>-47</b>	—
2300	-14	0.1	<b>25</b>	—
2900	-17	-0.34	<b>-103</b>	—
3600	-11	-0.28	<b>-106</b>	—
4300	15	1.59	<b>715</b>	<b>64</b>
4900	45	3.46	<b>1775</b>	<b>76</b>
5000	50	3.79	<b>1984</b>	<b>76</b>
5600	87	5.89	<b>3453</b>	<b>76</b>
6300	139	8.67	<b>5720</b>	<b>73</b>

# PERFORMANCE OF THE SYSTEM

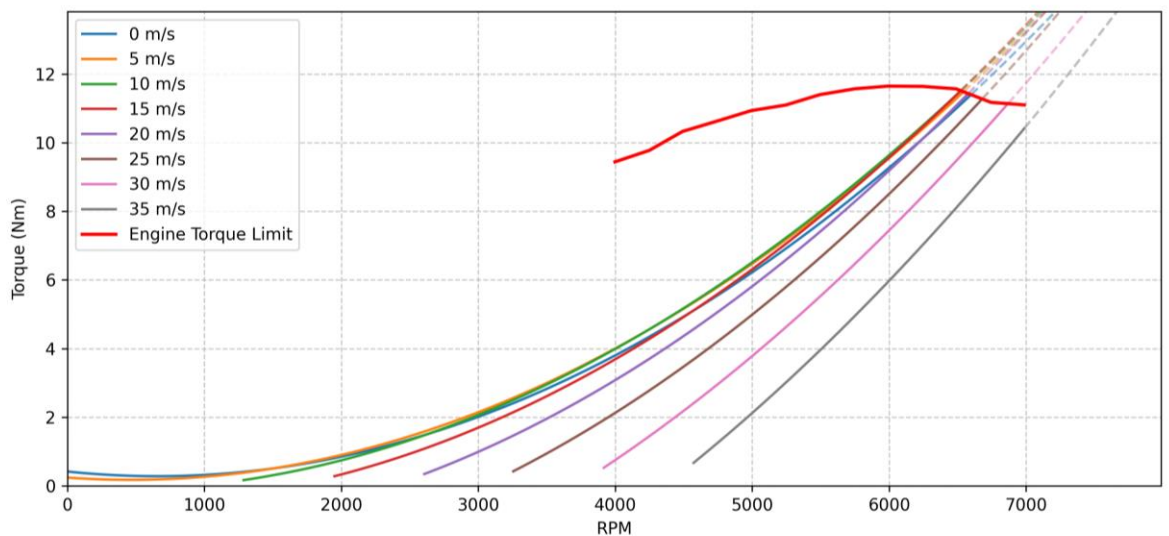
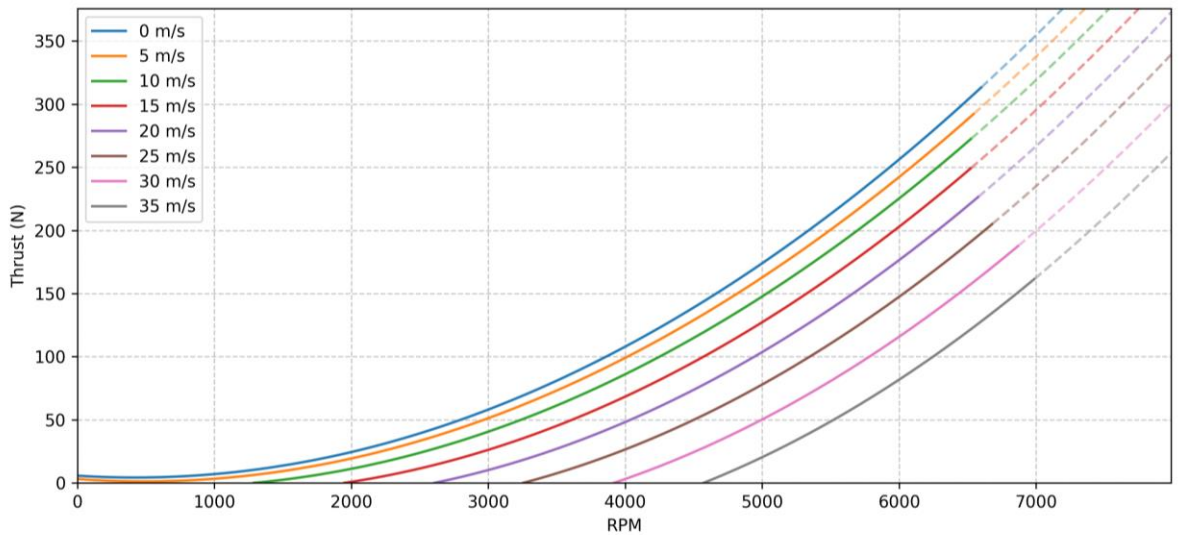
Flight velocity

**40 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	-7	-0.94	<b>-98</b>	—
1600	-11	-0.71	<b>-119</b>	—
2300	-17	-0.31	<b>-74</b>	—
2900	-23	0.07	<b>22</b>	—
3600	-33	-1.07	<b>-402</b>	—
4300	-34	-1.91	<b>-859</b>	—
4900	-15	-0.35	<b>-178</b>	—
5000	-11	0.02	<b>8</b>	—
5600	20	2.34	<b>1375</b>	<b>59</b>
6300	66	5.39	<b>3556</b>	<b>75</b>

# PERFORMANCE OF THE SYSTEM

## 101HS + Mejlík 28x11 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 Mejlík'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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