

# Professional Propulsion Systems

## SYSTEM SPECIFICATIONS

### ENGINE



Name:	<b>630 HS</b>
Manufacturer:	<b>ZANZOTTERA ENGINES</b>
Type:	<b>2-cylinder boxer</b>
Displacement:	<b>626 cm<sup>3</sup></b>
Max. performance:	<b>52 HP at 6500 RPM</b>
Weight:	<b>18.3 Kg</b>
Max RPM:	<b>6800 RPM</b>
Running direction:	<b>Clockwise</b>

### PROPELLER



Name:	<b>40x34.3 2B CW (Direction guide)</b>
Manufacturer:	<b>Mejzlik</b>
Diameter:	<b>40 in</b>
Pitch:	<b>34.3 in</b>
Mass:	<b>620 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 [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	41	2.75	<b>288</b>	<b>0</b>
1400	82	5.41	<b>793</b>	<b>0</b>
1800	137	9	<b>1696</b>	<b>0</b>
2200	210	13.78	<b>3174</b>	<b>0</b>
2700	325	21.19	<b>5991</b>	<b>0</b>
3100	432	28.84	<b>9361</b>	<b>0</b>
3500	562	37.79	<b>13850</b>	<b>0</b>
3900	712	48.21	<b>19689</b>	<b>0</b>
4400	937	63.87	<b>29429</b>	<b>0</b>

Flight velocity

**10 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1000	23	2.87	<b>300</b>	<b>78</b>
1400	62	6.38	<b>935</b>	<b>66</b>
1800	115	10.74	<b>2024</b>	<b>57</b>
2200	185	16.08	<b>3705</b>	<b>50</b>
2700	295	24.34	<b>6882</b>	<b>43</b>
3100	402	32.36	<b>10506</b>	<b>38</b>
3500	528	41.82	<b>15328</b>	<b>34</b>
3900	676	52.89	<b>21599</b>	<b>31</b>
4400	893	69.39	<b>31972</b>	<b>28</b>

# PERFORMANCE OF THE SYSTEM

Flight velocity

**20 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1200	1	0.53	<b>66</b>	<b>20</b>
1600	40	5.64	<b>945</b>	<b>84</b>
2000	96	11.66	<b>2441</b>	<b>79</b>
2400	169	18.57	<b>4666</b>	<b>72</b>
2800	258	26.46	<b>7760</b>	<b>66</b>
3200	365	35.56	<b>11915</b>	<b>61</b>
3500	457	43.26	<b>15857</b>	<b>58</b>
3600	491	46.02	<b>17350</b>	<b>57</b>
4000	637	58.12	<b>24345</b>	<b>52</b>
4400	806	72.02	<b>33185</b>	<b>49</b>

Flight velocity

**30 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
1900	14	2.84	<b>564</b>	<b>72</b>
2200	57	8.74	<b>2013</b>	<b>85</b>
2500	110	15.07	<b>3944</b>	<b>84</b>
2800	174	21.97	<b>6442</b>	<b>81</b>
3100	248	29.52	<b>9582</b>	<b>78</b>
3400	332	37.73	<b>13432</b>	<b>74</b>
3500	363	40.63	<b>14893</b>	<b>73</b>
3700	428	46.73	<b>18105</b>	<b>71</b>
4000	535	56.56	<b>23692</b>	<b>68</b>
4400	698	71.29	<b>32850</b>	<b>64</b>

# PERFORMANCE OF THE SYSTEM

Flight velocity

**40 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
2500	19	4.15	<b>1086</b>	<b>69</b>
2700	55	9.43	<b>2666</b>	<b>83</b>
3000	119	17.77	<b>5584</b>	<b>85</b>
3200	167	23.55	<b>7890</b>	<b>85</b>
3400	220	29.63	<b>10551</b>	<b>83</b>
3500	249	32.82	<b>12027</b>	<b>83</b>
3700	310	39.44	<b>15282</b>	<b>81</b>
3900	375	46.37	<b>18940</b>	<b>79</b>
4100	447	53.77	<b>23085</b>	<b>77</b>
4400	566	65.73	<b>30287</b>	<b>75</b>

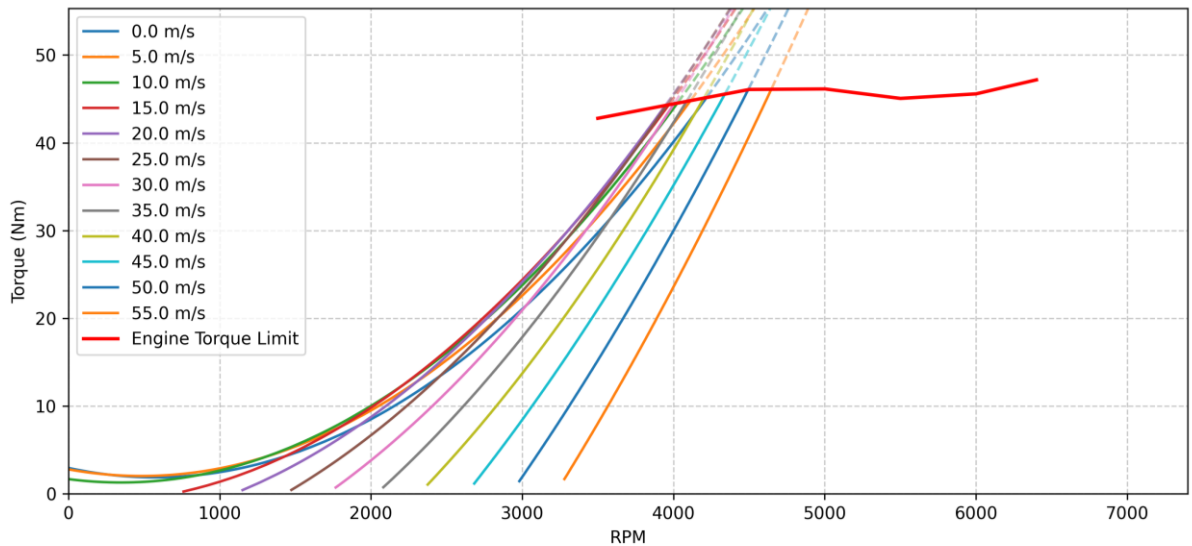
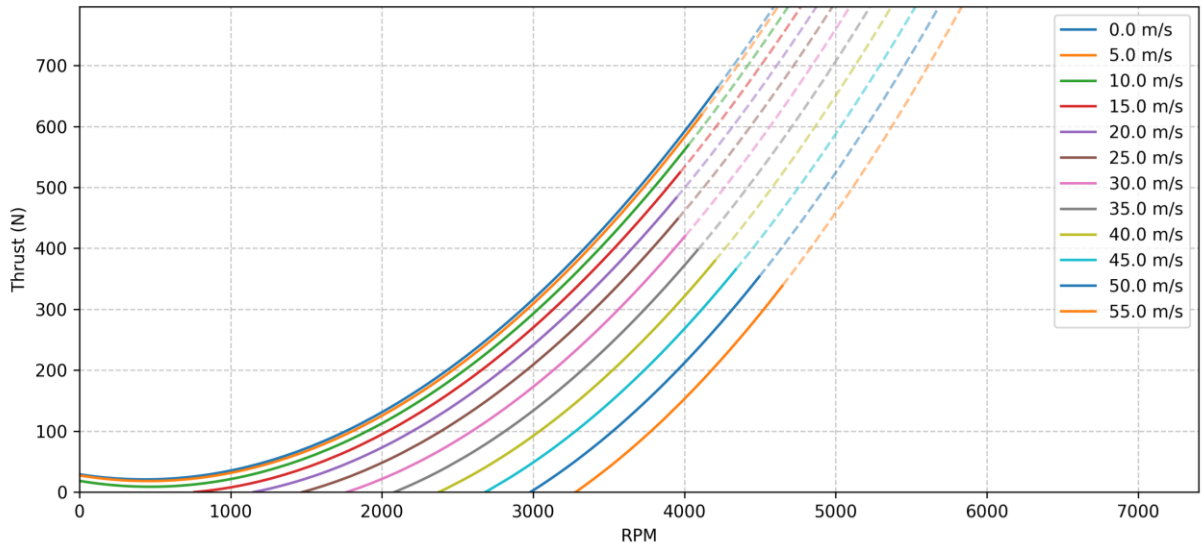
Flight velocity

**50 m/s**

Rotational Speed [RPM]	Thrust [N]	Torque [Nm]	Mechanical Power [W]	Propulsion efficiency [%]
3100	25	5.68	<b>1845</b>	<b>66</b>
3300	70	12.45	<b>4302</b>	<b>82</b>
3400	95	15.92	<b>5670</b>	<b>84</b>
3500	121	19.48	<b>7138</b>	<b>85</b>
3600	149	23.11	<b>8710</b>	<b>85</b>
3700	177	26.81	<b>10388</b>	<b>85</b>
3900	239	34.45	<b>14072</b>	<b>85</b>
4000	271	38.38	<b>16075</b>	<b>84</b>
4200	341	46.44	<b>20427</b>	<b>83</b>
4400	416	54.92	<b>25308</b>	<b>82</b>

# PERFORMANCE OF THE SYSTEM

## 630HS + Mejlík 40x34.3 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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