

# THP-XXXX

## Spear Loads



Thorndike spear loads come in a variety of shapes for various applications. These are both low and high power versions of each of these parts however most applications include some type of medium to high power requirement. They are typically used for semi-precision applications and higher power applications where the heat generated can be removed through the waveguide walls. These loads typically cover full waveguide bandwidths with estimated VSWR values of 1.10:1 or better, depending on the part chosen. There are multiple lengths available based on power level, required performance and space requirements. Performance at the very low end of waveguide bands may deteriorate slightly for shorter length parts. For specific electrical requirements, we suggest ordering the parts tested to performance.

Thorndike manufactures Tapered spear loads ranging in frequency from 1 – 50 GHz. covering waveguide sizes from WR-650 to WR-22.

Typical power levels of Spear loads range from 50 to 1000 watts depending on the waveguide size, and cooling system employed by user.

Waveguide	Part Number	Frequency	VSWR	Length
284	THP100	2.60-3.95	1.10	10.500
229	THP200	3.30-4.90	1.10	9.25
187	THP300	3.95-5.85	1.10	7.875
159	THP400	4.90-7.05	1.10	7.625
137	THP500	5.85-8.20	1.10	7.500
112	THP600	7.05-10.0	1.10	6.500
102	THP700	7.00-11.0	1.10	6.00
90	THP800	8.2-12.4	1.10	5.00
75	THP900	10.0-15.0	1.10	4.00
62	THP1000	12.4-18.0	1.10	3.00
51	THP1100	15.0-22.0	1.10	3.130
42	THP1200	18.0-26.5	1.10	3.250
28	THP1300	26.5-40.0	1.10	3.750
28	THP1400	26.5-40.0	1.10	2.750
22	THP1500	33.0-50.0	1.10	1.380

Thorndike Corporation is continually updating, improving and adding to our product line for tapered wedge loads based on the latest technologies and customer requirements. If you do not see a part that is suitable for your application, it is very possible that we have a new design, not shown on this sheet. Please contact us with any special requirements that you do not see listed on this list of components.

# DTHP-XXXX

## Dual Angle Spear Loads



Thorndike spear loads come in a variety of shapes for various applications. These are both low and high power versions of each of these parts however most applications include some type of medium to high power requirement. They are typically used for semi-precision applications and higher power applications where the heat generated can be removed through the waveguide walls. These loads typically cover full waveguide bandwidths with estimated VSWR values of 1.10:1 or better, depending on the part chosen. There are multiple lengths available based on power level, required performance and space requirements. Performance at the very low end of waveguide bands may deteriorate slightly for shorter length parts. For specific electrical requirements, we suggest ordering the parts tested to performance.

Thorndike manufactures Tapered spear loads ranging in frequency from 1 – 50 GHz. covering waveguide sizes from WR-430 to WR-28.

Typical power levels of Spear loads range from 50 to 2000 watts depending on the waveguide size, and cooling system employed by user.

Waveguide	Part Number	Frequency	VSWR	Length
430	DTHP-100	1.70-2.60	1.06	8.20
430	DTHP-200	1.70-2.60	1.05	12.50
340	DTHP-300	2.20-3.30	1.05	11.50
284	DTHP-400	2.60-3.95	1.05	9.630
229	DTHP-500	3.30-4.90	1.05	7.750
187	DTHP-600	4.40-5.00	1.07	8.00
187	DTHP-700	5.52-5.58	1.05	4.813
159	DTHP-800	4.90-7.05	1.10	6.00
137	DTHP-900	5.59-8.20	1.05	6.50
137	DTHP-1000	5.59-8.20	1.05	7.00
137	DTHP-1100	5.93-6.43	1.07	4.00
112	DTHP-1200	7.05-10.0	1.05	4.50
112	DTHP-1300	7.65-10.0	1.05	6.50
102	DTHP-1400	7.00-11.0	1.05	3.75
90	DTHP-1500	8.20-12.4	1.05	4.00
75	DTHP-1600	10.0-15.0	1.06	3.75
62	DTHP-1700	12.4-18.0	1.06	2.50
42	DTHP-1800	18.0-26.5	1.05	2.75
28	DTHP-1900	26.5-40.0	1.06	1.125

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