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# Технические характеристики на нагреватели сопла UGL высокой мощности компании **MASTERWATT**

# HIGH POWER DENSITY UGL NOZZLE HEATERS



## **High power density ugl nozzle heaters**

The UGL is a new family of nozzle heaters, which has been conceived to combine the benefits of PIROFLEX heaters hermetic construction with the non-hermetic PIROSLIM heaters high specific power performances ( $5 \text{ W/cm}^2$ ). They are best suited in all the applications which do not present specific accommodation constraints or whenever the treated plastic material is corrosive. Their special construction makes them resistant to plastic material penetration thus insuring a good capability of operation even if plastic material leaks from the nozzle. These heaters are employed in all the plastic moulding machines where the operational temperature does not exceed  $350^\circ\text{C}$ .

## UGL

### - Nozzle Heaters -

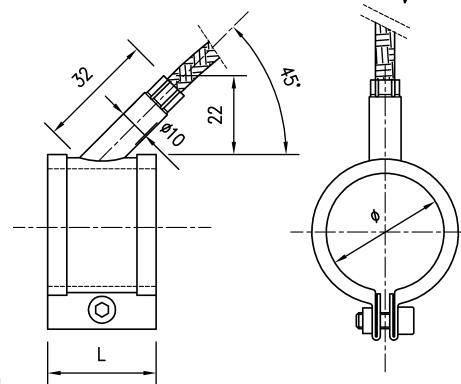


Figure 1

#### GENERAL CHARACTERISTICS

The UGL is a new family of nozzle heaters, which has been conceived to combine the benefits of PIROFLEX heaters hermetic construction with the non-hermetic PIROSIM heaters high specific power performances ( $5 \text{ W/cm}^2$ ). They are best suited in all the applications which do not present specific accommodation constraints or whenever the treated plastic material is corrosive. Their special construction makes them resistant to plastic material penetration thus insuring operation also if melted plastic leaks from the nozzle.

#### APPLICATIONS

These heaters are employed in all the plastic moulding machines where the operational temperature does not exceed  $350^\circ\text{C}$ .

#### TECHNICAL DATA (see Figure 1)

1. **RESISTIVE WINDING** made of Nickel/Chrome 80/20
2. **ELECTRICAL INSULATION** made of high purity continuous mica with a very low presence of binder
3. **SHEATH** made of stainless steel AISI 304 resistant to plastic material penetration
4. **POWER SUPPLY** via 2-pole+ground cable with internal conductors in pure nickel, internal insulation in fibreglass-Teflon and external protection by a metallic braid sheath. The cable standard length is 1000 mm, its standard inclination (see Figure 1) is  $45^\circ$ . The cable is welded to the heating circuit. A special outer cap, brazed onto the external sheath, contains the junction between the power supply cable and the internal circuit terminals, guaranteeing an optimum blockage of the cable
5. **SPECIFIC POWER**  $5 \text{ W/cm}^2$ .
6. **OPERATING TEMPERATURE**  $350^\circ\text{C}$
7. **CLAMPING** onto nozzle via internal hex-head screws (1 screw up to 35 mm width and 2 screws behind 35 mm)

#### INSTALLATION

When installing, please make sure that the heater internal surface perfectly adheres to the nozzle. Then tighten adequately the hexagonal-head screws provided with the heater. After initial operation (30 minutes) tighten again the screws in order to compensate the thermal expansion.

#### STANDARD DIMENSIONS

UGL heaters are manufactured in standard dimensions as detailed in Table 1. They are available on stock: to order them simply specify the code.

#### SPECIAL CONSTRUCTIONS

When required, non-standard UGL heaters can be manufactured. In particular it is possible to:

- Provide heaters with special dimensions provided that the diameter does not exceed 100 mm and the width 100 mm. The minimum possible width is 25 mm
- Provide power supply cables with a length that is different from the standard (1000 mm) or having a radial orientation (see Figure 2) instead of the standard axial  $45^\circ$  one (see Figure 1)
- Provide heaters with heating power or power supply voltage that are different from those specified in Table 1 as long as the specific power does not exceed  $6 \text{ W/cm}^2$ .
- Provide heaters with a hole to allow the introduction of a thermal sensor

If non standard power supply and/or voltage constructions are requested, our technical department shall check the feasibility.

If a hole to allow the introduction of a thermal sensor is required, a drawing shall be supplied which clearly shows the hole dimension and the desired position.

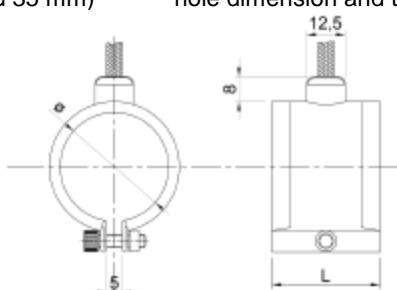


Figure 2: UGL with radially oriented power supply cable

Table 1: UGL heaters available on stock

SPECIFIC POWER 5 W/cm <sup>2</sup> - 230 V							
ΦD (mm)	L (mm)	Power (Watt)	Code	ΦD (mm)	L (mm)	Power (Watt)	Code
25	30	120	29025030	70	25	270	29070025
30	25	120	29030025	70	30	330	29070030
30	30	140	29030030	70	35	385	29070035
30	35	165	29030035	70	40	440	29070040
30	40	185	29030040	70	50	550	29070050
35	25	135	29035025	70	60	660	29070060
35	30	165	29035030	75	25	295	29075025
35	35	190	29035035	75	30	355	29075030
35	40	220	29035040	75	35	410	29075035
35	45	235	29035045	75	40	470	29075040
40	25	155	29040025	75	50	590	29075050
40	30	190	29040030	75	60	705	29075060
40	35	220	29040035	80	25	310	29080025
40	40	250	29040040	80	30	375	29080030
40	45	280	29040045	80	35	440	29080035
42	25	165	29042025	80	40	500	29080040
42	30	200	29042030	80	50	630	29080050
42	35	230	29042035	80	60	750	29080060
42	40	265	29042040	85	25	330	29085025
45	25	175	29045025	85	30	400	29085030
45	30	210	29045030	85	35	465	29085035
45	35	250	29045035	85	40	530	29085040
45	40	280	29045040	85	50	665	29085050
45	45	320	29045045	85	60	800	29085060
45	50	350	29045050	90	25	350	29090025
50	25	195	29050025	90	30	420	29090030
50	30	235	29050030	90	35	490	29090035
50	35	275	29050035	90	40	565	29090040
50	40	315	29050040	90	50	705	29090050
50	50	390	29050050	90	60	845	29090060
55	25	215	29055025	95	25	370	29095025
55	30	260	29055030	95	30	445	29095030
55	35	300	29055035	95	35	520	29095035
55	40	345	29055040	95	40	595	29095040
55	50	430	29055050	95	50	745	29095050
60	25	235	29060025	95	60	895	29095060
60	30	280	29060030	100	25	390	29100025
60	35	330	29060035	100	30	470	29100030
60	40	375	29060040	100	35	550	29100035
60	50	470	29060050	100	40	630	29100040
60	60	565	29060060	100	50	785	29100050
65	25	255	29065025	100	60	940	29100060
65	30	305	29065030				
65	35	355	29065035				
65	40	405	29065040				
65	50	510	29065050				
65	60	610	29065060				

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