

WITHDRAWABLE HEATERS

40255X series

Grimwood withdrawable heaters are designed for applications where it is essential to be able to replace the element without emptying the tank, or where it is necessary to restrict the temperature to which the fluid is exposed.

Typical applications where the maximum temperature must be limited to avoid product damage include;

- oil or resin heating
- fermentation and food processing

Applications where it is essential to be able to remove the element without emptying the tank include;

- shipboard tanks
- sullage and waste water treatment tanks

Withdrawable heaters are also used to replace ceramic bobbin heaters; they are typically more robust in most applications.

All units consist of three U shaped elements each typically rated at 240V. They may therefore be wired for 415/240V star connection or 240V single phase. Special voltages are available and can be made to order.

The standard series comprises ten lengths or penetrations, with three wattages in each size to give watts densities of 7.75, 15.5 or 31.0kW/m² which are suitable for most fluids. High watts densities of up to 42kW/m² are available for specific applications.

The high nickel alloy heaters are designed to insert into a DN50 (2IN NB) tubular sheath. Sheaths can be provided by the user to suit their application, and **Grimwood** sheaths are available in carbon steel, copper and stainless steel

— see page 15-3-3.

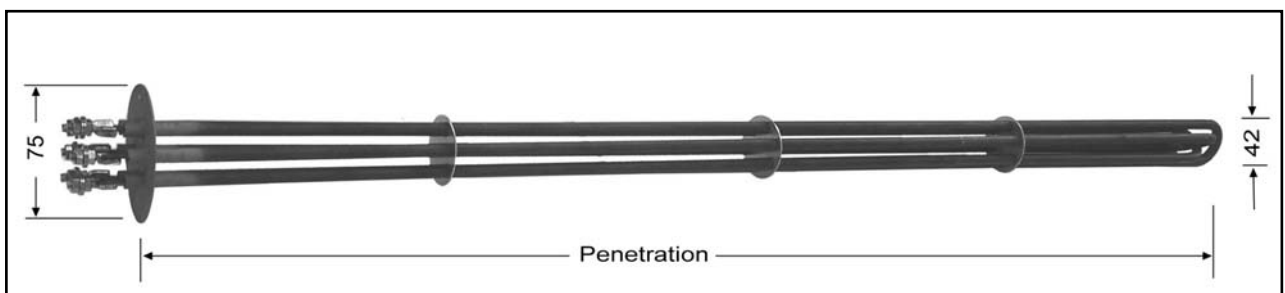
ELEMENT SELECTION PROCESS:

Firstly determine the wattage required, then select the required Watts density, which will give the penetration - read off the part number using the table on the next page.

The selection of the most appropriate wattage, watts density and sheath material is highly application specific and the factory should be consulted for guidance if in doubt.

For higher wattages or where space is limited, multiple elements may be required to achieve the required Watts density.

If your application cannot be satisfied from the standard range, Grimwood can quote for your particular need.



**WITHDRAWABLE HEATERS – STANDARD SIZES**

Part Number	Wattage (W)	Watts Density (kW/m ²)	Penetration (mm)
40255X12T2407	750	7.75	660
40255X12T2410	1000	10	660
40255X12T2415	1500	15.5	660
40255X12T2430	3000	31	660
40255X15T2409	900	7.75	813
40255X15T2418	1800	15.5	813
40255X15T2436	3600	31	813
40255X16T2410	1000	7.75	864
40255X16T2420	2000	15.5	864
40255X16T2440	4000	31	864
40255X20T2412	1200	7.75	1067
40255X20T2424	2400	15.5	1067
40255X20T2448	4800	31	1067
40255X24T2415	1500	7.75	1270
40255X24T2430	3000	15.5	1270
40255X24T2460	6000	31	1270
40255X29T2418	1800	7.75	1525
40255X29T2436	3600	15.5	1525
40255X29T2472	7200	31	1525
40255X32T2420	2000	7.75	1676
40255X32T2440	4000	15.5	1676
40255X32T2480	8000	31	1676
40255X40T2425	2500	7.75	2083
40255X40T2450	5000	15.5	2083
40255X40T24100	10000	31	2083
40255X48T2430	3000	7.75	2490
40255X48T2450	5000	12.8	2490
40255X48T2460	6000	15.5	2490
40255X48T24120	12000	31	2490
40255X60T2437	3750	7.75	3100
40255X60T2475	7500	15.5	3100
40255X60T41133	13300	27.3	3100
40255X60T41150	15000	31	3100

WITHDRAWABLE HEATER SHEATHS

40077X Series

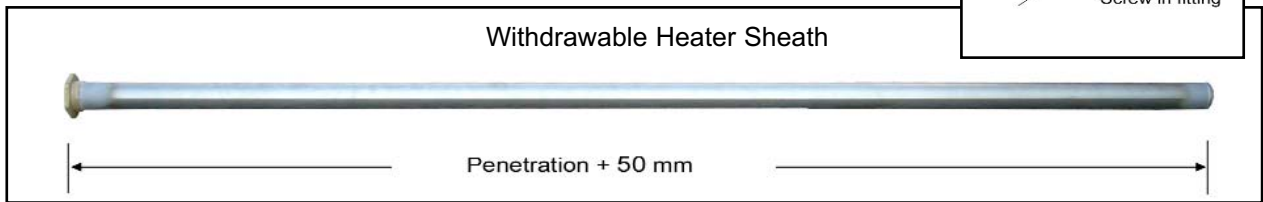
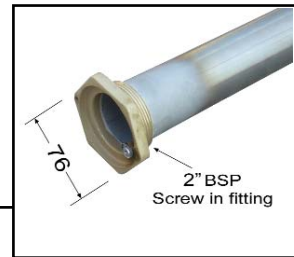
Grimwood Withdrawable Heater Sheaths are designed to complement the Grimwood **40255X** series Withdrawable Heaters.

The standard series comprises 10 lengths to accommodate the 10 standard length **40255X** series Heaters.

Please select a heater from the standard list to suit your application then add the appropriate sheath and cover as required, using the ordering codes shown.

The standard sheath has a 2" BSP parallel fitting to allow it to be screwed into a complementary fitting on the users vessel and sealed with a gasket. Other mounting methods e.g. 50NB flanges are also available.

For specialist advice, please consult **Grimwood Heating Pty Ltd.**



ELEMENT ORDERING CODE

40255XppTvvww where **pp** is the penetration from the table, **vv** is the voltage divided by ten, **ww** is the Wattage in hundreds of watts.

For example:
40255X15T2436 is 813mm penetration, 240 Volts, 3600 Watts.

Special non-standard heaters are also available.

Use this code format when requesting specials also.

SHEATH ORDERING CODE

40077Xppm where **pp** is the code from the penetration table, opposite, and **m** is the code from the sheath material table, below.

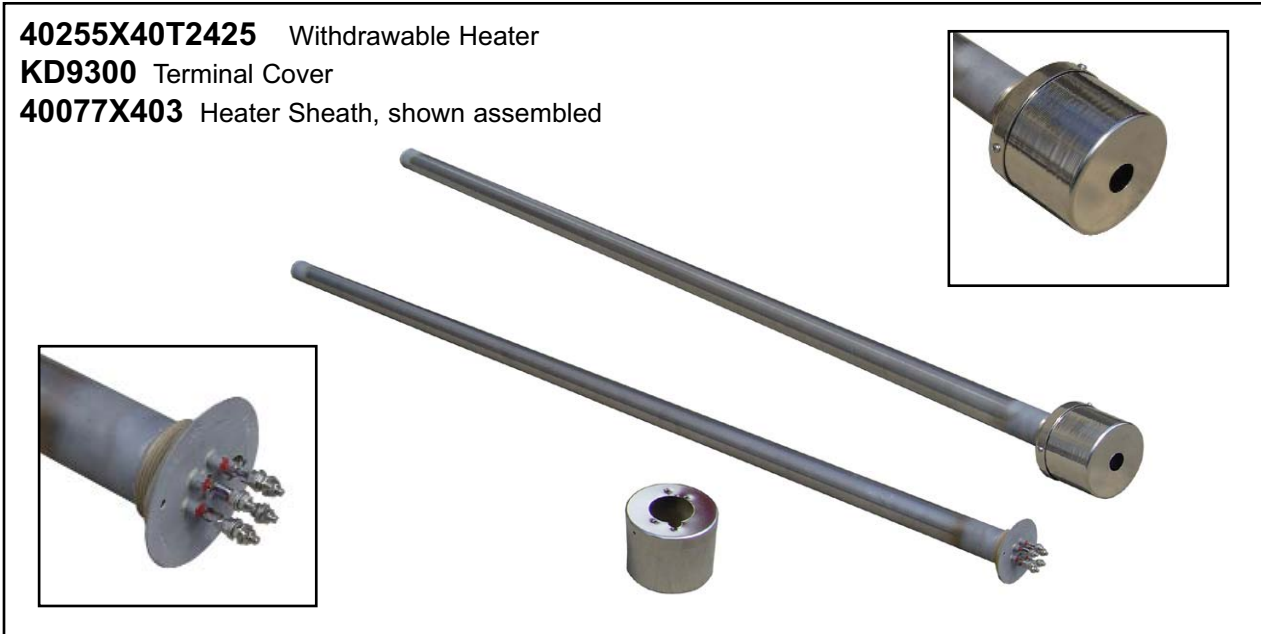
SHEATH MATERIAL		CODE <i>m</i>
Carbon Steel	(Brass Bush)	S
Copper	(Brass Bush)	C
SS316	(SS Bush)	3
Duplex SS 2205	(SS Bush)	D

**PENETRATION (mm) CODE
*pp***

660	12
813	15
864	16
1067	20
1270	24
1525	29
1676	32
2083	40
2490	48
3100	60

WITHDRAWABLE HEATER AND SHEATH ASSEMBLY

40255X40T2425 Withdrawable Heater
KD9300 Terminal Cover
40077X403 Heater Sheath, shown assembled



The above photographs show how Grimwood withdrawable heaters are designed to fit into a standard withdrawable heater sheath. The heater flange plate is secured to the 2" BSP boss on the heater sheath, using screws.

The 2" BSP boss is part of the heater sheath. This enables the sheath to be screwed into the users vessel, and sealed with a gasket, while the heater can be easily removed without the need to empty the vessel.

The **KD9300** terminal cover is the ideal accessory that can be fitted to ensure electrical connections are protected and users are safe from electrical hazards. Other terminal covers, e.g. weatherproof or IECEx 'd' flameproof are also available upon request.