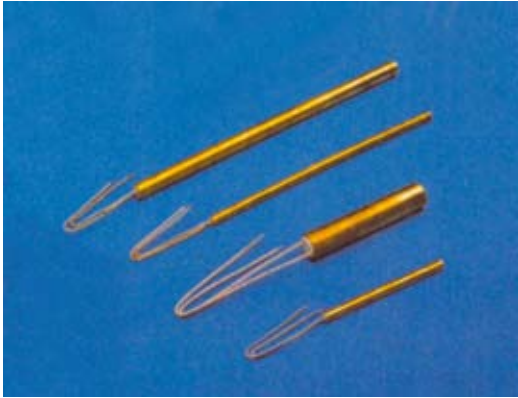




CBCL / CBCI Low Watts density cartridge heaters Cartouches basse charge



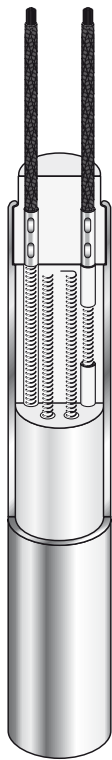
Cartridges are made with a nickel-chrome resistance wire spiral wound and housed in ceramic formers, which is then sheathed, with stainless steel or brass tubing. They are designed for industrial applications where low to medium power density is required. Cartridge heaters of this type are used extensively in the plastics industry and other tool or mould heating applications as well as in refrigeration equipment.

- Brass sheath: **CBCL - (350°C max)**
or Stainless steel sheath AISI304: **CBCI - (500°C max)**
- Max Watt density: 4W/cm² (CBCL)
6W/cm² (CBCI)
- Dias: 3/8", 1/2", 5/8", 3/4", 1" and 16 metric diameters from 10mm to 30mm
- Length 40 to 2000mm
- Voltage 24V to 400V

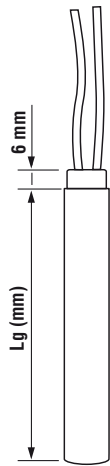
Cartouches à fil nickel-chrome bobiné, supporté et isolé de la gaine métallique extérieure par une canne réfractaire de type barillet. Réalisations sur mesure pour applications basse température ou à faible flux thermique (dégivrage / réfrigération / plateaux de presse / machoires de soudeuses / couteaux chauffants / outils de marquage / etc...)

- Blindage laiton: **CBCL - T max 350°C**
ou Blindage inox AISI304: **CBCI - T max 500°C**
- Charge maxi. 4W/cm² (CBCL)
6W/cm² (CBCI)
- Ø 3/8" - 1/2" - 5/8" - 3/4" - 1" + 16 diamètres métriques de 10 à 30mm.
- Longueur 40 à 2000mm
- Tension 24V à 400V

Raccordement par 2 fils nickel isolés soie de verre siliconée de lg 250, 500, 1000, 1500 ou 2000mm, ou par sorties optionnelles standardisées.



CBCL



Maximum possible output according to length (W/cm)
Puissances maximales réalisables suivant longueurs (W/cm)

Charge Watt density	Ø (+/- 0,12mm)	
	Ø 22mm	Ø 24mm
Recommended: 3W/cm ² Conseillée: 3W/cm ²	21W	23W
* Maximum: 4W/cm ² * Maximal: 4W/cm ²	28W	30W

* Please note that the maximum power and temperature limits are governed by the fit of the cartridge and the application.

* Suivant conditions d'utilisation Consultez nos services techniques

NOTE: Recommended Watt densities are given for maximum clearance of 0,2 - 0,3mm between hole and cartridge. Performances can be strongly increased by using our heat transfer and release coating
ref: **HTCR** (see page 026)

NOTA: Les charges recommandées sont données pour un jeu maximum de 0,2 à 0,3mm entre perçage et cartouche. Les performances peuvent être fortement accrues par utilisation de notre revêtement thermoconducteur
ref: **HTCR** (voir page 026)

CBCI

Maximum possible output according to length (W/cm) Puissances maximales réalisables suivant longueurs (W/cm)

Charge Watt density	Ø (+/- 0,2)		Ø																											
	Ø 3/8"	Ø 1/2"	Ø 5/8"	Ø 1"	Ø 9,5 mm	Ø 10 mm	Ø 11 mm	Ø 12 mm	Ø 12,5 mm	Ø 12,7 mm	Ø 13 mm	Ø 14 mm	Ø 14,7 mm	Ø 15 mm	Ø 15,8 mm	Ø 16 mm	Ø 17 mm	Ø 18 mm	Ø 19 mm	Ø 20 mm	Ø 23 mm	Ø 25 mm	Ø 25,4 mm	Ø 28 mm	Ø 30 mm	Ø 32 mm				
Recommended: 4W/cm ² Conseillée: 4W/cm ²	12W	16W	20W	32W	12W	13W	14W	15W	16W	16W	16W	18W	18W	19W	20W	20W	21W	23W	24W	25W	29W	31W	32W	35W	38W	40W				
Recommended: * 6W/cm ² Conseillée: * 6W/cm ²	18W	24W	30W	48W	18W	19W	21W	23W	24W	24W	24W	26W	28W	28W	30W	30W	32W	34W	36W	38W	43W	47W	48W	53W	57W	60W				

* According to using conditions consult our technical department / Suivant conditions d'utilisation consulter nos services techniques

Optional standard terminals
Sorties optionnelles standardisées

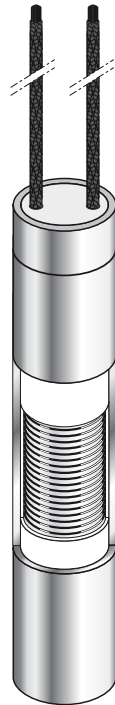
- Flexible metal conduit GMD: Gaine métallique flexible
- Flexible metal braid TMD: Tresse métallique flexible
- Flexible spring RFD: Ressort de flexion
- Ceramic beads PCB: Perles céramiques
- Flexible metal conduit GMC: Gaine métallique flexible
- Flexible metal braid TMC: Tresse métallique
- Flexible spring RFC: Ressort de flexion
- BRD: Terminals Sortie par bornes

Optionals fixings
Fixations optionnelles

- PFL Tab: Patte de fixation
- RFL Threaded gland: Raccord fileté



CHDM / CHDP High Watts density cartridge heaters Cartouches haute charge



Cartridges are made with a nickel-chrome resistance wire spiral wound around a magnesia former, which is then sheathed, with stainless steel and magnesium oxide. The whole assembly is then swaged to achieve a high compaction ratio. This compaction gives the heater its excellent thermal conductivity properties that allow very high power densities. Over 500 versions are available from stock or on short delivery. They are designed for industrial applications where high power density is required. Cartridge heaters of this type are used extensively in the plastics industry and other tool or mould heating applications where their compact size to power ratio is an advantage.

Standard features

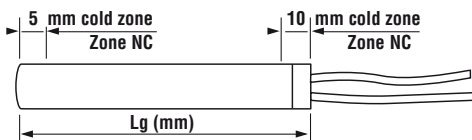
- Thick wall stainless steel sheath
- CHDP range available 1/4", 3/8", 1/2", 5/8", and 3/4"
- CHDM range available 6.5, 8, 12.5, 16, and 20mm
- Watts density up to 80w/cm² *
- Max working temp 800 C
- Stock units are rated 230v
- Standard connection is 250mm high temp leads
- J or K Thermocouples can be fitted

Cartouches à fil nickel-chrome bobiné sur noyau de magnésie pré-comprimé et tolérancé, parfaitement centré au cœur du blindage métallique, garantissant un échange thermique et un isolement électrique optimal après remplissage de l'interstice par de la poudre d'oxyde de magnésium et compression par martelage.

Plus de 500 modèles standardisés disponibles sous délais court, pour applications industrielles les plus exigeantes (compacité / flux thermique élevé / hautes températures / résistances aux vibrations / grande fiabilité):

Plasturgie - Machines outils
Echangeurs haut flux.

- Blindage AISI 321 de forte épaisseur
- Ø 1/4" - 3/8" - 1/2" - 5/8" - 3/4" (CHDP) ou métrique Ø 6,5 - 8 - 10 - 12,5 - 16 - 20mm (CHDM)
- Charge 4 à 80W/cm² - **T max 800C**
- Puissance 75 à 5000W
- Tension nominale 230V
- Câble d'alimentation en nickel pur isolé soie de verre (Lg standard 250mm) ou sorties optionnelles standardisées.
- Option thermocouple intégré (type "J" ou "K" à préciser)



Integral thermocouple
Option Thermocouple intégré

UTC 1
T/C Junction embedded in end disc
Point chaud d'extrémité à la masse

UTC 2
T/C Junction in core
Point chaud central isolé

UTC 3
T/C Junction grounded against sheath
Point chaud central à la masse

Optional standardized terminals
Sorties optionnelles standardisées

PFC
Flexible metal conduit / Gaine métallique flexible

PFT
Flexible metal braid / Tresse métallique flexible

CBI
Ceramic beads / Perles céramiques

RAE-C
Metal conduit with 90° elbow
Sortie à 90 par gaine métallique, avec raccord coudé

RAE-A
Metal conduit without elbow
Sortie à 90 par gaine métallique, sans raccord

RAE-B
Direct exit 90° leads
Sortie directe par fils à 90

Standard flange dimension
Dimension des brides inox standard

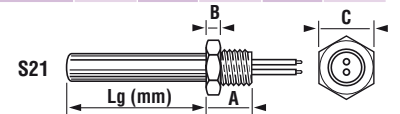
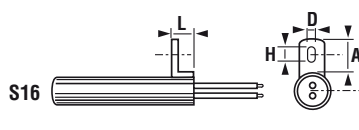
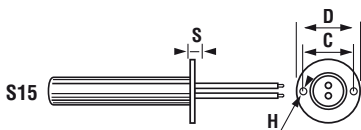
Ø	D	C	H	S
6,5 - 1/4"	8 - 5/16"	25	19	3,5
10 - 3/8"	12,5 - 1/2"			2
6,5 - 1/4"	8 - 5/16"			
10 - 3/8"	12,5 - 1/2"	35	28	4,5
16 - 5/8"	20 - 3/4"			2

Dimension of small right angle flanges
Dimension des brides à angle droit

Ø	6,5 - 1/4"	8 - 5/16"	10 - 3/8"	12,5 - 1/2"	16 - 5/8"	20 - 3/4"
A	10	11	13	15	18	22
C	8,7	10	13	15,8	18	23
D	3,2	3,2	4,2	5,3	5,4	6,2
H	6	7	9	11	13,5	16,6
L	5,7	6	6,6	6,8	10,3	12

Table of standard stainless steel threaded fittings
Caractéristiques des raccords filetés inox

Ø mm	6,5	8	10	12,5	16	20
A	11	13	15	17	20	25
B	4	4,5	5	5,5	6	7
C	12	14	17	19	24	30
Thread	10x1	12x1,5	14x1,5	16x1,5	20x1,5	27x1,5
Ø inches	1/4"	3/8"	1/2"	5/8"	3/4"	
A	11	15	17	20	25	
B	4	5	5,5	6	7	
C	12	17	19	24	30	
Thread	1/8"	1/4"	3/8"	1/2"	3/4"	



Please note that the maximum power and temperature limits are governed by the fit of the cartridge and the application.

Maximum admissible clearance between hole and cartridge, as a function of density W/cm² and working temperature
Jeu maximal admissible entre perçage et cartouche, en fonction de la charge W/cm² et de la température d'utilisation

Using temperature Température d'utilisation	Watt density W/cm ²										Charge W/cm ²										
	2	3	4	5	6	7	8	9	10	12	15	18	20	25	30	35	40	50	60	70	80
100°C							2,00	1,75	1,50	1,00	0,65	0,55	0,50	0,40	0,30	0,25	0,22	0,20	0,15	0,13	0,10
200°C						2,00	1,75	1,50	1,25	0,75	0,60	0,50	0,45	0,35	0,25	0,20	0,17	0,15	0,12	1,00	0,08
300°C						1,75	1,50	1,30	1,00	0,70	0,55	0,50	0,40	0,35	0,25	0,18	0,15	0,10	0,085	0,075	0,06
400°C						1,30	1,20	1,00	0,70	0,60	0,50	0,40	0,35	0,30	0,20	0,10	0,08	0,07	0,065	0,060	0,050
500°C					2,00	1,50	1,30	1,00	0,60	0,50	0,35	0,30	0,20	0,15	0,10	0,085	0,075	0,050	0,045	0,040	0,035
600°C				2,00	1,50	0,70	0,55	0,45	0,35	0,25	0,20	0,15	0,10	0,075	0,050	0,045	0,040	0,035	0,030	0,025	0,020
700°C			1,00	0,60	0,50	0,30	0,20	0,15	0,10	0,085	0,065	0,050	0,040	0,030	0,025	0,020	0,015				
800°C	1,30	0,35	0,15	0,08	0,065	0,040	0,035	0,030	0,025	0,020	0,015	0,010									



CHDM

Metric high watt density cartridges

Cartouches chauffantes haute charge (côtes métriques)

Ø 6,5mm (-0.03 / -0.05)			
Leng./Long.	W/230V	W/cm sq	Ref.
25mm	75	25	CHDM10102
	100	33	CHDM10103
	150	50	CHDM10105
	175	58	CHDM10106
40mm	100	18	CHDM10203
	125	22	CHDM10204
	150	27	CHDM10205
	175	31	CHDM10206
	200	36	CHDM10207
	250	44	CHDM10208
50mm	125	17	CHDM10304
	150	20	CHDM10305
	175	24	CHDM10306
	200	27	CHDM10307
	250	34	CHDM10308
60mm	125	13	CHDM10404
	150	16	CHDM10405
	175	19	CHDM10406
	200	21	CHDM10407
	250	26	CHDM10408
	300	32	CHDM10409
80mm	125	9	CHDM10504
	175	13	CHDM10505
	200	15	CHDM10507
	250	19	CHDM10508
	300	22	CHDM10509
	100mm	125	7
150		9	CHDM10605
200		12	CHDM10607
250		15	CHDM10608
300		17	CHDM10609
350		20	CHDM10610
400		23	CHDM10611
130mm		125	7
	150	8	CHDM10705
	200	9	CHDM10707
	250	17	CHDM10709
	350	20	CHDM10710
	400	23	CHDM10711
160mm	150	5	CHDM10805
	200	7	CHDM10807
	300	10	CHDM10809
	350	12	CHDM10810
	400	14	CHDM10811
	500	17	CHDM10812

Ø 8mm (-0.04 / -0.06)			
Leng./Long.	W/230V	W/cm sq	Ref.
40mm	125	18	CHDM20204
	150	21	CHDM20205
	200	28	CHDM20207
50mm	125	13	CHDM20304
	150	16	CHDM20305
	200	22	CHDM20307
	250	27	CHDM20308
60mm	125	11	CHDM20404
	150	13	CHDM20405
	200	17	CHDM20407
	250	21	CHDM20408
	300	25	CHDM20409
80mm	150	9	CHDM20505
	175	11	CHDM20506
	200	12	CHDM20507
	250	15	CHDM20508
100mm	175	8	CHDM20606
	200	9	CHDM20607
	250	12	CHDM20608
	300	14	CHDM20609
130mm	175	6	CHDM20706
	200	7	CHDM20707
	250	9	CHDM20708
	300	10	CHDM20709
160mm	200	14	CHDM20811
	250	17	CHDM20812
	300	18	CHDM20813
	400	24	CHDM20814
	500	30	CHDM20815
	600	37	CHDM20816

Ø 10mm (-0.04 / -0.07)			
Leng./Long.	W/230V	W/cm sq	Ref.
25mm	75	16	CHDM30102
	100	21	CHDM30103
	150	32	CHDM30105
	200	43	CHDM30107

Ø 10mm (follow / suite)			
Leng./Long.	W/230V	W/cm sq	Ref.
40mm	100	12	CHDM30203
	125	15	CHDM30204
	150	18	CHDM30205
	200	24	CHDM30207
	250	30	CHDM30208
	300	37	CHDM30209
50mm	125	11	CHDM30304
	150	13	CHDM30305
	200	18	CHDM30307
	250	22	CHDM30308
	300	26	CHDM30309
	400	36	CHDM30311
60mm	125	9	CHDM30404
	150	11	CHDM30405
	200	14	CHDM30407
	250	18	CHDM30408
	300	21	CHDM30409
	400	28	CHDM30411
80mm	150	7	CHDM30505
	200	10	CHDM30507
	250	12	CHDM30508
	300	15	CHDM30509
	400	20	CHDM30511
	500	25	CHDM30512
100mm	200	8	CHDM30607
	250	9	CHDM30608
	300	11	CHDM30609
	350	13	CHDM30610
	400	15	CHDM30611
	500	19	CHDM30612
130mm	250	7	CHDM30708
	300	8	CHDM30709
	400	11	CHDM30711
	500	14	CHDM30712
	600	17	CHDM30713
	800	22	CHDM30715
160mm	300	7	CHDM30809
	400	9	CHDM30811
	500	11	CHDM30812
	600	13	CHDM30813
	800	18	CHDM30815
	1000	24	CHDM30816
200mm	400	7	CHDM30911
	500	9	CHDM30912
	600	10	CHDM30913
	800	14	CHDM30915
	1000	18	CHDM30916

Ø 12,5mm (-0.05 / -0.08)			
Leng./Long.	W/230V	W/cm sq	Ref.
40mm	125	13	CHDM40204
	160	16	CHDM40206
	200	20	CHDM40207
	250	25	CHDM40208
	300	30	CHDM40209
	350	35	CHDM40210
50mm	160	12	CHDM40306
	200	15	CHDM40307
	250	18	CHDM40308
	300	22	CHDM40309
	350	25	CHDM40310
	400	29	CHDM40311
60mm	125	7	CHDM40404
	160	9	CHDM40405
	200	12	CHDM40407
	250	15	CHDM40408
	300	17	CHDM40409
	350	20	CHDM40410
80mm	125	5	CHDM40504
	160	6	CHDM40506
	200	8	CHDM40507
	250	10	CHDM40508
	300	12	CHDM40509
	350	14	CHDM40510
100mm	160	5	CHDM40606
	200	6	CHDM40607
	250	8	CHDM40608
	300	9	CHDM40609
	400	12	CHDM40611
	500	15	CHDM40612

Ø 12,5mm (follow / suite)			
Leng./Long.	W/230V	W/cm sq	Ref.
100mm	600	18	CHDM40613
	800	25	CHDM40615
	1000	31	CHDM40616
130mm	250	6	CHDM40708
	300	7	CHDM40709
	400	9	CHDM40711
	500	11	CHDM40712
	600	14	CHDM40713
	800	18	CHDM40715
160mm	400	7	CHDM40811
	500	8	CHDM40812
	600	10	CHDM40813
	800	13	CHDM40815
	1000	17	CHDM40816
	1200	20	CHDM40817
200mm	300	4	CHDM40909
	500	7	CHDM40912
	600	8	CHDM40913
	800	11	CHDM40915
	1000	14	CHDM40916
	1200	17	CHDM40917
250mm	500	5	CHDM41012
	800	9	CHDM41015
	1000	11	CHDM41016
	1250	14	CHDM41018
	1500	17	CHDM41020
	2000	22	CHDM41023
300mm	500	5	CHDM41112
	800	7	CHDM41115
	1000	9	CHDM41116
	1250	11	CHDM41118
	1500	14	CHDM41120
	2000	18	CHDM41123

Ø 16mm (-0.05 / -0.08)			
Leng./Long.	W/230V	W/cm sq	Ref.
40mm	160	13	CHDM50206
	200	16	CHDM50207
	250	20	CHDM50208
	300	24	CHDM50209
	400	32	CHDM50211
	500	40	CHDM50212
50mm	160	9	CHDM50306
	200	11	CHDM50307
	250	14	CHDM50308
	300	17	CHDM50309
	400	23	CHDM50311
	500	28	CHDM50312
60mm	160	8	CHDM50406
	200	10	CHDM50407
	250	12	CHDM50408
	300	15	CHDM50409
	400	20	CHDM50411
	500	24	CHDM50412
80mm	250	8	CHDM50508
	300	10	CHDM50509
	400	13	CHDM50511
	500	16	CHDM50512
	600	20	CHDM50513
	800	26	CHDM50515
100mm	300	7	CHDM50609
	400	10	CHDM50611
	500	12	CHDM50612
	600	15	CHDM50613
	800	20	CHDM50615
	1000	25	CHDM50616
130mm	400	7	CHDM50711
	500	10	CHDM50712
	600	12	CHDM50713
	800	15	CHDM50715
	1000	20	CHDM50716
	1200	25	CHDM50717
160mm	400	6	CHDM50811
	500	7	CHDM50812
	600	8	CHDM50813
	800	11	CHDM50815
	1000	14	CHDM50816
	1300	19	CHDM50819
200mm	500	6	CHDM50912
	800	7	CHDM50915
	1000	8	CHDM50916
	1250	11	CHDM50918
	1500	14	CHDM50920
	2000	19	CHDM50923
250mm	500	4	CHDM51012

Ø 16mm (follow / suite)			
Leng./Long.	W/230V	W/cm sq	Ref.
250mm	800	7	CHDM51015
	1000	9	CHDM51016
	1300	11	CHDM51019
	1600	14	CHDM51021
300mm	2000	17	CHDM51023
	500	4	CHDM51112
	800	6	CHDM51115
	1000	7	CHDM51116
	1300	9	CHDM51119
	1500	11	CHDM51120
350mm	1800	13	CHDM51122
	2000	14	CHDM51123
	2500	18	CHDM51124
	750	5	CHDM51214
	1000	6	CHDM51216
	1300	8	CHDM51219
400mm	1600	10	CHDM51221
	2000	12	CHDM51223
	2500	15	CHDM51224
	1000	5	CHDM51316
	1300	7	CHDM51319
	1600	8	CHDM51321
2500	2000	10	CHDM51323
	2500	13	CHDM51324

Ø 20mm (-0.06 / -0.10)			
Leng./Long.	W/230V	W/cm sq	Ref.
60mm	200	8	CHDM60407
	300	12	CHDM60409
	500	20	CHDM60412
	600	24	CHDM60413
80mm	800	32	CHDM60415
	300	8	CHDM60509
	400	11	CHDM60511
	500	14	CHDM60512
100mm	600	16	CHDM60513
	800	22	CHDM60515
	1000	27	CHDM60516
	1250	34	CHDM60518
	400	8	CHDM60611
	600	12	CHDM60613
130mm	800	16	CHDM60615
	1000	20	CHDM60616
	1300	27	CHDM60619
	1600	32	CHDM60621
	400	6	CHDM60711
	500	7	CHDM60712
160mm	600	9	CHDM60713
	800	12	CHDM60715
	1000	15	CHDM60716
	1500	22	CHDM60720
	2000	30	CHDM60723
	200mm	500	6
800		9	CHDM60815
1000		12	CHDM60816
1500		18	CHDM60820
2000		23	CHDM60823
250mm		800	7
	1000	9	CHDM60916
	1300	12	CHDM60919
	1600	15	CHDM60921
	2000	18	CHDM60923
	2500	23	CHDM60924
300mm	800	6	CHDM61015
	1000	7	CHDM61016
	1500	11	CHDM61020
	2000	14	CHDM61023
	2500	18	CHDM61024
	350mm	1000	6
1500		9	CHDM61120
2000		12	CHDM61123
2500		15	CHDM61124
1500		7	CHDM61220
2000		10	CHDM61223
400mm	2500	12	CHDM61224
	3000	15	CHDM61225
	3500	17	CHDM61226
	1500	6	CHDM61320
	2000	9	CHDM61323
	2500	11	CHDM61324
450mm	3000	13	CHDM61325
	2500	15	CHDM61326
	4000	17	CHDM61327
	2000	7	CHDM61423
	2500	9	CHDM61424
	3000	12	



CHDP

Imperial high watt density cartridges

Cartouches chauffantes haute charge (côtes en pouces)

Ø 1/4" (-0.03 / -0.05)			
Leng./Long.	W/230V	W/cm sq	Ref.
1"	75	25	CHDP10102
	100	33	CHDP10103
	150	50	CHDP10105
	175	58	CHDP10106
1 1/2"	75	14	CHDP10202
	100	19	CHDP10203
	125	24	CHDP10204
	150	29	CHDP10205
	175	34	CHDP10206
	200	38	CHDP10207
2"	100	13	CHDP10303
	125	16	CHDP10304
	150	20	CHDP10305
	175	23	CHDP10306
	200	16	CHDP10307
	250	34	CHDP10308
2 1/2"	100	10	CHDP10403
	125	13	CHDP10404
	150	15	CHDP10405
	175	18	CHDP10406
3"	100	8	CHDP10503
	150	12	CHDP10505
	175	14	CHDP10506
	200	16	CHDP10507
	250	20	CHDP10508
	300	24	CHDP10509
3 1/2"	150	10	CHDP10605
	200	13	CHDP10607
	250	16	CHDP10608
	300	20	CHDP10609
4"	125	7	CHDP10704
	150	9	CHDP10705
	175	10	CHDP10706
	200	11	CHDP10707
	250	14	CHDP10708
	300	17	CHDP10709
5"	150	7	CHDP10905
	200	9	CHDP10907
	250	11	CHDP10908
	300	13	CHDP10909
	350	15	CHDP10910
	400	18	CHDP10911
6"	150	5	CHDP11105
	200	7	CHDP11107
	300	11	CHDP11109
	350	13	CHDP11110
	400	15	CHDP11111
	500	18	CHDP11112

Ø 3/8" (-0.04 / -0.07)			
Leng./Long.	W/230V	W/cm sq	Ref.
1"	75	17	CHDP20102
	100	22	CHDP20103
	150	33	CHDP20105
	200	44	CHDP20107
1 1/2"	100	14	CHDP20203
	125	17	CHDP20204
	150	21	CHDP20205
	200	28	CHDP20207
	250	35	CHDP20208
	300	42	CHDP20209
2"	100	9	CHDP20303
	125	11	CHDP20304
	150	14	CHDP20305
	175	16	CHDP20306
	200	18	CHDP20307
	250	22	CHDP20308
2 1/2"	100	7	CHDP20403
	125	8	CHDP20404
	150	10	CHDP20405
	200	14	CHDP20407
	250	17	CHDP20408
	300	20	CHDP20409
3"	150	8	CHDP20505
	200	11	CHDP20507
	250	14	CHDP20508
	300	16	CHDP20509
	400	22	CHDP20511
	600	33	CHDP20513

Ø 3/8" (follow / suite)			
Leng./Long.	W/230V	W/cm sq	Ref.
3 1/2"	250	9	CHDP20608
	300	11	CHDP20609
	350	13	CHDP20610
	400	15	CHDP20611
	500	23	CHDP20612
4"	150	6	CHDP20705
	200	8	CHDP20707
	250	10	CHDP20708
	300	12	CHDP20709
	400	15	CHDP20711
	500	19	CHDP20712
5 1/2"	600	23	CHDP20713
	750	29	CHDP20714
	200	6	CHDP20907
	250	8	CHDP20908
	300	9	CHDP20909
	400	12	CHDP20911
6"	500	15	CHDP20912
	800	24	CHDP20915
	1000	30	CHDP20916
	250	6	CHDP21108
	300	7	CHDP21109
	400	10	CHDP21111
7"	500	12	CHDP21112
	600	15	CHDP21113
	800	20	CHDP21115
	1000	25	CHDP21116
	350	7	CHDP21210
	400	8	CHDP21211
8"	500	10	CHDP21212
	600	12	CHDP21213
	800	16	CHDP21215
	1000	21	CHDP21216
	400	7	CHDP21311
	500	9	CHDP21312
8"	600	11	CHDP21313
	800	14	CHDP21315
	1000	18	CHDP21316
	1000	18	CHDP21316

Ø 1/2" (-0.05 / -0.08)			
Leng./Long.	W/230V	W/cm sq	Ref.
1 1/2"	125	14	CHDP30204
	150	16	CHDP30205
	200	22	CHDP30207
	250	27	CHDP30208
	300	33	CHDP30209
2"	150	10	CHDP30305
	200	13	CHDP30307
	250	16	CHDP30308
	300	21	CHDP30309
	400	26	CHDP30311
	500	33	CHDP30312
2 1/2"	150	8	CHDP30405
	250	13	CHDP30408
	300	16	CHDP30409
	400	21	CHDP30411
	500	27	CHDP30412
	600	33	CHDP30413
3"	200	8	CHDP30507
	250	10	CHDP30508
	300	13	CHDP30509
	400	17	CHDP30511
	500	21	CHDP30512
	600	25	CHDP30513
3 1/2"	750	31	CHDP30514
	250	9	CHDP30608
	300	10	CHDP30609
	350	12	CHDP30610
	500	17	CHDP30612
	750	26	CHDP30614
4"	250	7	CHDP30708
	300	9	CHDP30709
	350	10	CHDP30710
	400	12	CHDP30711
	500	15	CHDP30712
	600	18	CHDP30713
5"	800	24	CHDP30715
	1000	30	CHDP30716
	300	7	CHDP30909
	350	8	CHDP30910
	400	9	CHDP30911
	500	11	CHDP30912
6"	600	14	CHDP30913
	750	17	CHDP30914
	800	18	CHDP30915
	1000	23	CHDP30916
	300	6	CHDP31109
	400	7	CHDP31111
6"	500	9	CHDP31112
	600	11	CHDP31113
	750	14	CHDP31114
	800	15	CHDP31115
	1000	19	CHDP31116

Ø 1/2" (follow / suite)			
Leng./Long.	W/230V	W/cm sq	Ref.
7"	500	8	CHDP31212
	600	9	CHDP31213
	800	12	CHDP31215
	1000	15	CHDP31216
8"	500	7	CHDP31312
	800	11	CHDP31315
	1000	14	CHDP31316
	1500	20	CHDP31320
	2000	27	CHDP31323
	9"	500	6
600		7	CHDP31413
750		9	CHDP31414
1000		12	CHDP31416
1200		14	CHDP31417
1500		18	CHDP31420
10"	500	5	CHDP31512
	600	8	CHDP31514
	750	11	CHDP31516
	1250	13	CHDP31517
	1500	16	CHDP31520
	2000	21	CHDP31523
12"	600	5	CHDP31612
	800	7	CHDP31615
	1000	9	CHDP31616
	1500	13	CHDP31620
	2000	17	CHDP31623

Ø 5/8" (-0.05 / -0.08)			
Leng./Long.	W/230V	W/cm sq	Ref.
2"	200	16	CHDP40307
	300	24	CHDP40309
	500	40	CHDP40312
2 1/2"	175	8	CHDP40406
	250	11	CHDP40408
	300	14	CHDP40409
	400	18	CHDP40411
	500	23	CHDP40412
	750	34	CHDP40414
3"	250	9	CHDP40508
	300	11	CHDP40509
	400	14	CHDP40511
	500	18	CHDP40512
	600	21	CHDP40513
	750	26	CHDP40514
4"	1000	35	CHDP40516
	300	7	CHDP40709
	400	10	CHDP40711
	500	12	CHDP40712
	600	14	CHDP40713
	750	18	CHDP40715
5"	1000	24	CHDP40716
	1200	29	CHDP40717
	400	7	CHDP40911
	500	9	CHDP40912
	600	11	CHDP40913
	800	15	CHDP40915
6"	1000	19	CHDP40916
	1300	24	CHDP40919
	400	6	CHDP41111
	600	9	CHDP41113
	800	12	CHDP41115
	1000	15	CHDP41116
7"	1500	23	CHDP41120
	500	6	CHDP41212
	750	9	CHDP41214
	100	13	CHDP41216
	1500	19	CHDP41220
	8"	500	5
750		8	CHDP41314
100		11	CHDP41316
1200		13	CHDP41317
1500		16	CHDP41320
2000		22	CHDP41323
9"	500	5	CHDP41412
	750	7	CHDP41414
	1000	10	CHDP41416
	1300	13	CHDP41419
	1600	15	CHDP41421
	10"	750	6
1000		9	CHDP41516
1300		11	CHDP41519
1600		14	CHDP41521
2000		17	CHDP41523
12"		750	5
	1000	7	CHDP41616
	1500	11	CHDP41620
	1800	13	CHDP41622
	2000	14	CHDP41623
	2500	18	CHDP41624

Ø 5/8" (suite)			
Leng./Long.	W/230V	W/cm sq	Ref.
14"	1000	6	CHDP41716
	1600	10	CHDP41721
	2000	12	CHDP41723
	2500	15	CHDP41724
16"	1000	5	CHDP41816
	1600	8	CHDP41821
	2000	10	CHDP41823
	2500	13	CHDP41824

Ø 3/4" (-0.06 / -0.10)			
Leng./Long.	W/230V	W/cm sq	Ref.
3"	300	9	CHDP50509
	400	12	CHDP50511
	500	15	CHDP50512
4 1/2"	400	8	CHDP50711
	600	12	CHDP50713
	800	16	CHDP50715
	1000	24	CHDP50720
5"	400	6	CHDP50911
	500	8	CHDP50912
	1000	16	CHDP50916
	1500	24	CHDP50920
6"	400	5	CHDP51111
	600	8	CHDP51113
	1000	13	CHDP51116
	1500	19	CHDP51120
8"	500	5	CHDP51312
	600	6	CHDP51313
	1000	9	CHDP51316
	2000	18	CHDP51323
10"	800	6	CHDP51515
	1000	7	CHDP51516
	2000	14	CHDP51523
	12"	800	5
1000		6	CHDP51616
1500		9	CHDP51620
2000		12	CHDP51623
14"	2500	15	CHDP51624
	1500	8	CHDP51720
	2000	10	CHDP51723
	2500	13	CHDP51724
	3000	15	CHDP51725
	3500	18	CHDP51726

Note: All stock items are complete with 250mm fibre glass insulated power leads. Tolerance on wattage +5 to -10% (Norm EN 60335)

Nota: Toutes les références ont une sortie par fils de 250mm Tolérance sur la puissance + 5 à -10% (Norme EN 60335)

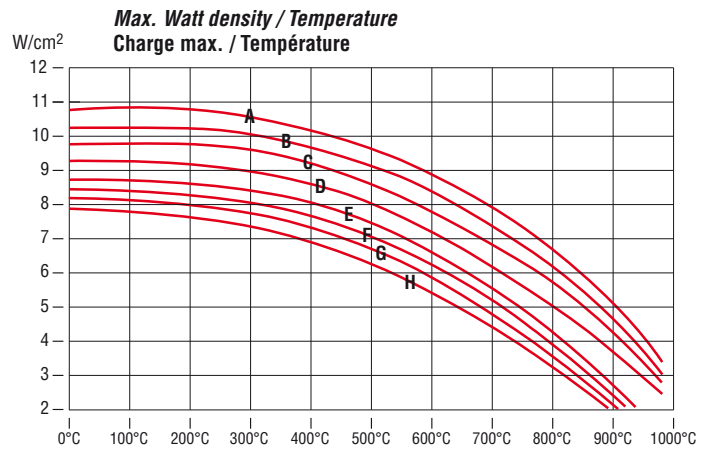
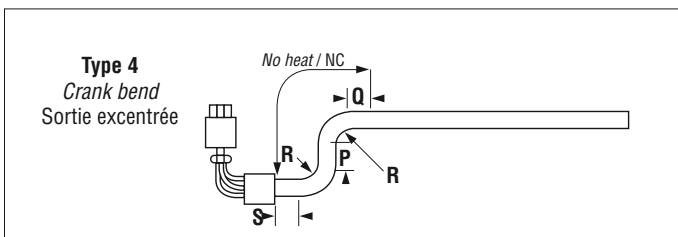
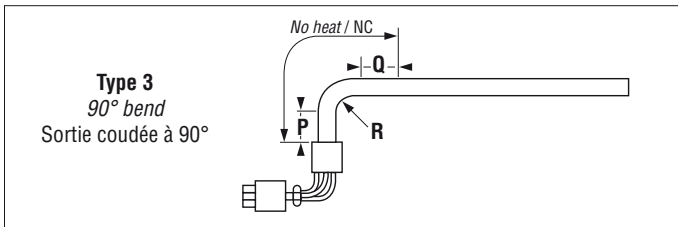
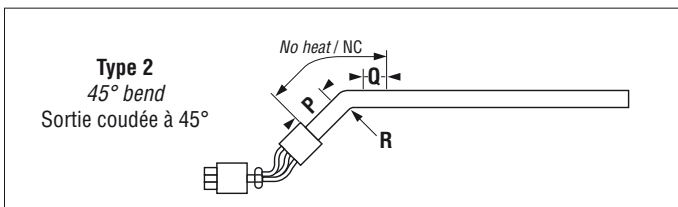
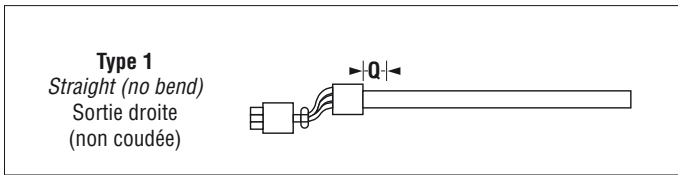


MZ

High temperature insertion heaters Cannes hautes températures



- Heating cartridges with **INCONEL 600 sheath**, designed for applications which require very high level of performance:
 - zone control in high temperature platens
 - titanium or carbon fiber hot forming
 - aerospace and aircraft manufacturing
 - metal die-casting beds
 - super heated gas and steam
 - fluidized catalytic beds
 - Temperatures up to 1000°C
 - Watt densities up to 8 W/cm²
 - 1, 2, or 3 independently controlled heating zones
 - Quick disconnect plug and jack
 - 3 standard diameters 12.5 / 17.40 / 23.75mm, +/- 0.127mm (consult our office for other possible diameters)
 - Radiant heat transfer allows undersized heaters, for easy insertion and removal.
 - Voltage 110 to 480VAC
- Cartouches chauffantes à blindage, INCONEL 600, développées pour les applications nécessitant de très hautes performances telles que:
 - plateaux chauffants à haute température, avec différentes zones de chauffe
 - formage à chaud de titane ou de composites
 - fabrications aéronautiques ou aérospatiales
 - moulage sous pression
 - réchauffage de gaz à très haute température
 - réaction catalytique en lit fluidisé
 - Chauffage jusqu'à 1000°C
 - Flux thermiques jusqu'à 8 W/cm².
 - 1, 2, ou 3 zones de chauffe individuellement contrôlables
 - Raccordement par connecteurs rapides
 - 3 diamètres standardisés: 12,50 / 17,40 / 23,75mm +/- 0,127mm (nous consulter pour autres Ø réalisables)
 - Aptitude de nos éléments à travailler par rayonnement dans des alésages de plus grand diamètre permettant leur remplacement aisé.
 - Réalisables pour tensions nominales de 110 à 480VAC



- Ø 17,40mm
- C = 240V / 1 Zone
- D = 240V / 2 ou 3 Zones
- G = 480V / 1 Zone
- H = 480V / 2 ou 3 Zones
- Ø 23,75mm
- A = 240V / 1 Zone
- B = 240V / 2 ou 3 Zones
- E = 480V / 1 Zone
- F = 480V / 2 ou 3 Zones

Bend type Type de sortie	Cartridge diameter Diamètre de cartouche (mm)	Platen hole size Diamètre de l'alésage récepteur (mm)	P Std. Min. (mm)	R Std. Min. (mm)	Q Std. Min. (mm)	S Std. Min. (mm)	Min. cold length NC mini. (mm)	Min. heated Lgth by zone Lg chauffante mini. par zone (mm)	Min. heated length Lg chauffante mini. (mm)	Max. heated length Lg chauffante maxi. (mm)	Cold Toe length Longueur NC d'extrémité (mm +/- 8mm)		
											1Z	2Z	3Z
N°1	12,50	14,30 to / à 15,90	-	-	51	-	= Q	-	203	4 318	41	-	-
	17,40	19,05 to / à 22,20	-	-	51	-	= Q	203	203	4 369	41	51	57
	23,75	25,40 to / à 31,75	-	-	51	-	= Q	203	203	4 191	41	51	57
N°2	12,50	14,30 to / à 15,90	102	28	25	-	152	-	203	4 318	41	-	-
	17,40	19,05 to / à 22,20	102	38	25	-	165	203	203	4 369	41	51	57
	23,75	25,40 to / à 31,75	102	63	25	-	190	203	203	4 191	41	51	57
N°3	12,50	14,30 to / à 15,90	102	28	25	-	184	-	203	4 318	41	-	-
	17,40	19,05 to / à 22,20	102	38	25	-	203	203	203	4 369	41	51	57
	23,75	25,40 to / à 31,75	102	63	25	-	248	203	203	4 191	41	51	57
N°4	12,50	14,30 to / à 15,90	38	28	25	63	216	-	203	4 318	41	-	-
	17,40	19,05 to / à 22,20	38	38	25	76	260	203	203	4 369	41	51	57
	23,75	25,40 to / à 31,75	38	63	25	102	305	203	203	4 191	41	51	57