

# Raychem

## HEAT SHRINKABLE GENERAL PURPOSE FLEXIBLE POLYOLEFIN

GPT is rated for continuous operation from -55°C to 135°C, and up to 300°C for short durations. GPT has excellent heat ageing and oxidative stability properties.

This polyolefin represents the best balance of properties for general purpose use. Shrink ratio is 2:1, it is advisable to select the largest size tube that will shrink on to the object. The typical applications for GPT-135 include wire markings, colour coding, insulation or lightweight harness jacketing. Mark-ability is an important feature of this general purpose material.

**STANDARD COLOURS - Black, White, Red, Blue, Yellow, Green,**  
**Clear (not flame retarded).**



PART No.	IMPERIAL	RECOVER AFTER	STD SPOOL	LENGTH
EXPANDED DIA "D"mm	Dia. INCHES	HEATING "d"mm		
GPT-1.2	3/64	0.6	304m	1.2m
GPT-1.6	1-16	0.8	304m	1.2m
GPT-2.4	3/32	1.2	152m	1.2m
GPT-3.2	1/8	1.6	152m	1.2m
GPT-4.8	3/16	2.4	152m	1.2m
GPT-6.4	1/4	3.2	76m	1.2m
GPT-9.5	3/8	4.8	61m	1.2m
GPT-12.7	1/2	6.4	45m	1.2m
GPT-19.1	3/4	9.5	76m	1.2m
GPT-25.4	1	12.7	76m	1.2m
GPT-38.1	1 1/2	19.1	38m	1.2m
GPT-50.8	2	25.4	38m	1.2m
GPT-76.2	3	38.1	30m	1.2m
GPT-101.6	4	50.8	22m	1.2m

**Green / Yellow**



DCPT-3/1.5	1/8	1.6	200m	1.2m
DCPT-6/3	1/4	3.2	75m	1.2m
DCPT-10/5	3/8	4.8	75m	1.2m
DCPT-12/6	1/2	6.4	75m	1.2m
DCPT-19/9	3/4	9.5	75m	1.2m
DCPT-26/13	1	12.7	30m	1.2m
DCPT-38/19	1 1/2	19.1	30m	1.2m

**\*Wall thickness will be less if tubing recovery is restricted during shrinkage.**

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## HEAT SHRINKABLE MEDIUM WALL CABLE SLEEVE

### GRADE MWS

MWS is a quick shrinking, medium wall, cross linked, semi rigid polyolefin tubing with large expansion ratios.

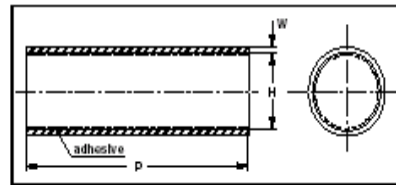
The MWS sleeves are designed to insulate & encapsulate electrical connections, voltage rated up to 1 kV.

The inner hot melt liner simultaneously melts & flows during the shrinking process to environmentally seal a connection or splice.

The adhesive bond develops excellent peel strength, depending upon substrate material composition.

These sleeves provide seals with a variety of synthetic sheath materials & most metals including lead, aluminium & steel.

### STANDARD COLOURS - BLACK



PART No.	P - LENGTH IN METRES	CABLE RANGE DIA mm	H (a) EXPANDED DIA mm	H (b) RECOVERED DIA mm	W - WALL SIZE AFTER SHRINKING
MWS 025	1.2	2.5 - 4.5	6	2	1.2
MWS 043	1.2	3.5 - 9	11	3.5	1.9
MWS 05	1.2	3.5 - 10	12	4	2
MWS 07	1.2	6.5 - 17	19	5.6	2.4
MWS 11/13	1.2	9 - 22.5	25	8	2
MWS 14	1.2	10 - 31.	33	9.6	2.7
MWS 15/17	1.2	13 - 31.5	35	12	2
MWS 18	1.2	14 - 38	43	12.7	3
MWS 20	1.2	17.5 - 45	50	16	2
MWS 27	1.2	21 - 57	63	23	2.5
MWS 35	1.2	32 - 86	85	29	3.3
MWS 45	1.2	37 - 104	115	34	3.1
MWS 55	1.2	46 - 126	140	42	3.1
MWS 64	1.2	55 - 144	160	50	3.2

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## HEAT SHRINKABLE MEDIUM WALL CABLE SLEEVE MWTM GRADE

PART No.	LENGTH METRE	CABLE RANGE DIA mm	H (a) EXPANDED DIA mm	H (b) RECOVERED DIA mm
MWTM10/3	1.2	3.5 - 9	10	3
MWTM16/5	1.2	5.5 - 14.5	16	5
MWTM25/8	1.2	9 - 22.5	25	8
MWTM35/12	1.2	13 - 31.5	35	12
MWTM50/16	1.2	17.5 - 45	50	16
MWTM63/19	1.2	21 - 57	63	19
MWTM75/22	1.2	24 - 68	75	22
MWTM85/25	1.2	27.5 - 77	85	25
MWTM95/29	1.2	32 - 86	95	29
MWTM115/34	1.2	37 - 104	115	34
MWTM140/42	1.2	46 - 126	140	42
MWTM160/50	1.2	55 - 144	160	50
MWTM180/60	1.2	66 - 162	180	60



## HEAT SHRINKABLE HEAVY WALL CABLE SLEEVE GRADE WCSM

WCSM is a heat shrinkable heavy wall tubing for insulating & sealing power cables & accessories.

In HWS tubing the electrical & physical properties of a cable over sheath material are combined with ruggedness & easy installation. Shrink ratio 3:1

PART No.	LENGTH METRE	CABLE RANGE DIA mm	H (a) EXPANDED DIA mm	H (b) RECOVERED DIA mm
WCSM13/4	1.2	4.5 - 11	13	4
WCSM20/6	1.2	6.5 - 17.5	20	6
WCSM33/8	1.2	9 - 30	33	8
WCSM43/12	1.2	13 - 39	43	12
WCSM51/16	1.2	17.5 - 44	51	16
WCSM70/21	1.2	23 - 62	70	21
WCSM85/25	1.2	27 - 76.5	85	25
WCSM105/30	1.2	38 - 90	105	30
WCSM130/36	1.2	40 - 107	130	36
WCSM180/50	1.2	55 - 155	180	50



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## HEATSHRINK ON A REEL

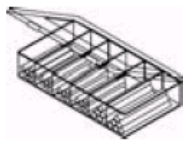
2:1 RATIO

Supplied in a carton dispenser providing easy storage & handling facilities.

Colours - Black, Blue, Red, White, Clear. (Green/Yellow Available)

PART No.	EXPANDED DIA	RECOVERED DIA		QTY MTS
HSB 3	3.2mm	1.6mm		20
HSB 4	4.8mm	2.4mm		10
HSB 6	6.4mm	3.2mm		10
HSB 9	9.5mm	4.8mm		8
HSB 12	12.7mm	6.4mm		8
HSB 19	19.1mm	9.5mm		5
HSB 25	25.4mm	12.7mm		5

## HEATSHRINK KIT



Colours: black, red, blue, white, clear & green/yellow.

PART No.	LENGTH	DESCRIPTION
REMKIT1	100mm	This kit contains assorted colours of GPT: 2.4, 3.2, 4.8, 6.4, 9.5, 12.7 & 19.1

## VERSAFIT-3X SPOOLS 3:1 SHRINK RATIO

Raychem's Versafit - 3x heat-shrinkable tubing has a 3:1 shrink ratio for use where a large expansion is required to accommodate dimensional differences.

Versafit - 3x tubing is a specially formulated, cross-linked polyolefin with a low recovery temperature, excellent flexibility & high flame-retardant.

Colour - Black



PART No.	IMPERIAL DIA Inches	EXPANDED "D" DIA mm	RECOVERED "d" DIA mm	STD SPOOL LENGTH
VERSA-2.4-0	3/32	2.4	0.8	152m
VERSA-3.2-0	1/8	3.2	1.1	152m
VERSA-6.4-0	1/4	6.4	2.2	76m
VERSA-9.5-0	3/8	9.5	3.2	61m
VERSA-12.7-0	1/2	12.7	4.3	45m
VERSA-19.1-0	3/4	19.1	6.4	76m
VERSA-25.4-0	1	25.4	8.5	76m

(Also available on smaller spools)

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## **THERMOFIT ES2000/1000 HEAT SHRINKABLE TUBING**

\*4:1 shrink ratio



Adhesive Lined, Semi-rigid Polyolefin, Heat Shrinkable Tubing. (Extended Temperature Range).

Adhesive lined Thermo-fit ES2000/1000 heat shrinkable tubing is specifically designed to meet automotive industry requirements for environmental sealing & electrical insulation of automotive wire splices, terminations & components. ES2000/1000 tubing has an outer jacket of radiation-cross linked, semi-rigid polyolefin. mechanically tough, the jacket provides strain relief & abrasion protection of wire splices & mechanically sensitive components. The inner layer of the tubing has a unique hot melt adhesive, specially formulated to adhere to all major types of automotive wire insulation & to perform well at an extended temperature range. Because ES2000/1000 tubing has a high shrink ratio, only a few sizes are needed to cover a wide range of splice & component diameters. ES2000/1000 tubing dimensions have been engineered to provide low cost sealing solutions on multiple wire splices (up to seven wires per side), using standard Raychem application equipment.

PART No.	COLOUR	EXPANDED "D" DIA	RECOVERED "d" DIA
ES2000-1	Black	5.72mm	1.27mm
ES2000-2	Black	7.44mm	1.65mm
ES2000-3	Black	10.85mm	2.41mm
ES2000-4	Black	17.78mm	4.45mm
ES1000-1	Clear	5.72mm	1.27mm
ES1000-2	Clear	7.44mm	1.65mm
ES1000-3	Clear	10.85mm	2.41mm
ES1000-4	Clear	17.78mm	4.45mm

## **DWP-125**

### **Flexible, high-shrink-ratio, adhesive-lined, polyolefin tubing**

\*3:1 shrink ratio allows insulation and sealing of irregular shapes.

\*Medium wall provides increased mechanical protection while maintaining flexibility when installed.

\*Adhesive bonds to a wide variety of plastics, rubber and metals (including polyethylene, neoprene & steel).

\*Operation temperature range -40 c to 110 c.

PART No.		EXPANDED DIA	RECOVERED DIA
DWP125-3.2-0		3.2mm	1mm
DWP125-4.8-0		4.8mm	1.5mm
DWP125-6.4-0		6.4mm	2mm
DWP125-9.5-0		9.5mm	3mm
DWP125-12.7-0		12.7mm	4mm
DWP125-19.1-0		19.1mm	6mm
DWP125-25.4-0		25.4mm	8mm
DWP125-38.1-0		38.1mm	13mm
DWP125-50.8-0		50.8mm	20mm

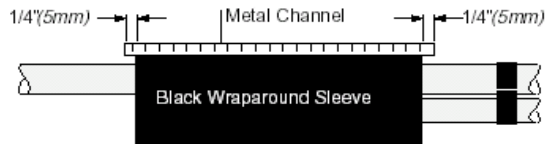
# Raychem

## CABLE REPAIR SLEEVE

### HEAT SHRINKABLE WRAPAROUND SYSTEM FOR PLASTIC OR METAL

#### SHEATHED CABLE REPAIR

CRSM wraparounds are a fast & permanent cable repair & sealing system. The repair sleeve is quickly fitted in place by means of its rail & channel closure. A moisture-proof, insulating & tight fitting repair is then obtained in one step by heating, which makes the sleeve diameter shrink & the adhesive coating melt & flow into interstices.



PART No.	H (a)	H (b)	W
CRSM34/10	34	10	2.4
CRSM53/13	53	13	2.3
CRSM84/20	84	20	2.3
CRSM107/129	107	29	2.3
CRSM143/36	143	36	2.3
CRSM198/55	198	55	2.5
CRSM250/98	250	98	1.7



**Notes:**

1. Dimensions in millimetres a = as supplied b = after free recovery
2. Max. longitudinal change after free recovery: -10%
3. Standard length 1.5 metres

## M + MA KITS - INLINE JOINTS

### FOR PLASTIC & RUBBER INSULATED CABLES



Inline joints for plastic & rubber insulated cables up to 1kV with or without armour or concentric neutrals.

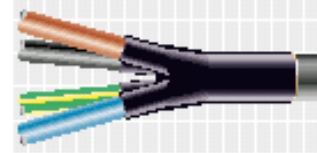
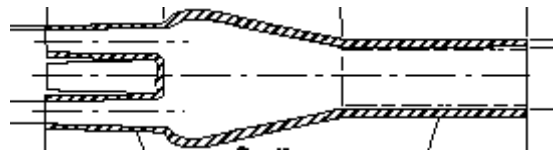
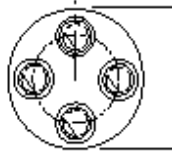
<b>MULTI CORE CABLES (NO ARMOUR)</b>		
PART No.	DESCRIPTION	CABLE SIZE mm <sup>2</sup>
M1	Heat Shrink Joining Kit	1.5 - 6
M2	Heat Shrink Joining Kit	10 - 16
M3	Heat Shrink Joining Kit	16 - 35
M4	Heat Shrink Joining Kit	50 - 70
M5	Heat Shrink Joining Kit	95 - 150
M6	Heat Shrink Joining Kit	185 - 300
<b>MULTI CORE CABLES (WITH ARMOUR)</b>		
PART No.	DESCRIPTION	CABLE SIZE mm <sup>2</sup>
MA7	Heat Shrink Joining Kit - Armoured	50 - 70
MA8	Heat Shrink Joining Kit - Armoured	95 - 120
MA9	Heat Shrink Joining Kit - Armoured	150 - 185
MA10	Heat Shrink Joining Kit - Armoured	240 - 300

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## HEAT SHRINKABLE POLYOLEFIN MOULDED BREAKOUTS ADHESIVE LINED

UV stability for outdoor use

Excellent cut through & abrasion resistance

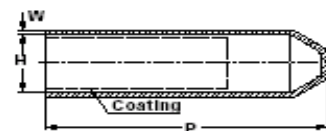


PART No.	No. OF CORES	CABLE SIZE mm <sup>2</sup>	BASE EXPAND SIZE DIA	BASE RECOVER SIZE DIA	FINGER EXPAND SIZE DIA	FINGER RECOVER SIZE DIA
CB-2-28	2	4 - 25	28mm	9.2mm	15mm	4.1mm
CB-2-48	2	35 - 150	48mm	32mm	22mm	7mm
CB-2-86	2	185 - 300	86mm	42mm	40mm	16mm
CB-3-38	3	4 - 35	38mm	13mm	16mm	4.2mm
CB-3-63	3	50 - 150	63mm	22mm	26mm	9mm
CB-3-95	3	185 - 300	95mm	28mm	44mm	13mm
CB-3-115	3	185 - 300	115mm	45mm	52mm	22mm
CB-3-170	3	185 - 300	170mm	60mm	60mm	30mm
CB-4-35	4	4 - 35	45mm	16mm	14mm	3.4mm
CB-4-45	4	35 - 70	45mm	19mm	20mm	7mm
CB-4-60	4	70 - 150	60mm	25mm	25mm	9mm
CB-4-100	4	185 - 300	100mm	31mm	40mm	13.5mm

## REMTEK HEAT SHRINKABLE END CAPS FOR THE ELECTRICAL POWER INDUSTRY

Cable End Caps shrink when heated to tightly fit a range of cable sizes & constructions. At the same time a special adhesive also melts & flows under the shrinking action, gripping the cable & ensuring a high integrity moisture seal.

PART No.	APPLICATOR RANGE DIA	H (a) min	H (b) max
EC-10-4	4 - 8	10	4
EC-22-7	8 - 17	20	7.5
EC-35-15	17 - 30	35	15
EC-55-25	30 - 45	55	25
EC-73-32	45 - 65	75	32
EC-100-45	65 - 95	100	45
EC-120-70	95 - 115	20	70



**Notes:** 1. Dimensions in millimetres a = as supplied b = after free recovery

# Raychem

## LVIT - LOW VOLTAGE INSULATING HEAT SHRINKABLE TUBING

### LVIT

LVIT is a black, medium wall, heat shrinkable, flame retarded tubing suitable for insulating bus-bars up to 3.6kV.

#### Highly Flexible

LVIT is easy to position on a variety of curved & bent busbars of both circular & rectangular cross-section.

#### Flammability

LVIT is highly flame retarded.

#### Flashover Protection

LVIT provides protection against flashover caused by accidental



#### Reduced Inventory

Each size may be used on a range of busbar sizes. Three sizes of LVIT cover the busbar range from 20mm to 200mm wide.

PART No.	BEFORE/AFTER SHRINKING (h)	WALL AFTER RECOVERY (w)
LVIT30/10-A/U	30 / 10	1.5
LVIT75/25-A/U	75 / 25	1.5
LVIT150/50-A/U	150 / 50	1.5

## RAYCHEM LVBT - LOW VOLTAGE BUSBAR INSULATING TAPE - HEAT SHRINKABLE

### LVBT

LVBT is a heat shrinkable insulating tape suitable for insulating busbars up to 1000V. It is designed for complex busbar geometry & restricted access areas where no open end is available. LVBT is adhesive coated & when heated will shrink to ensure a complete lap-to-lap seal.

#### Excellent Electrical Performance

LVBT is a high dielectric strength, cross linked polymeric insulation.

#### Flexible

LVBT has a 50% shrink ratio & will cover round or rectangular bars as well as irregular shapes.

#### Easy Installation

LVBT heat shrink ability ensures simple & easy installation over a wide variety of substances & configurations.



PART No.	WIDTH	LENGTH PER ROLL
LVBT-1-R	25mm	8m
LVBT-2-R	50mm	8m
LVBT-4-R	100mm	8m

# Raychem

## PD-CAPS - DUAL WALL SEMI RIGID END CAPS

PD-Caps offer an improved, inexpensive way to encapsulate crimped electrical connections, including those on motor coils. Encapsulant melts & flows to fill surface irregularities of the substrate. These vibration-proof caps are used to insulate & terminate dead-end electrical cables, fixtures, connectors, irrigation solenoids & other electrical equipment.



- \*3:1 shrink ratio.
- \*Permanent or temporary way to terminate wires.
- \*Rapid, simple installation.
- \*Rugged protection against abrasion, vibration & flexing.
- \*PD caps provide a splash-resistant & moisture resistant covering.

PART No.	EXPANDED DIA	RECOVERED DIA	RECOVERED WALL	BAG QUANTITY
PD-CAPS 3/16	4.8mm	1.52mm	1.57mm	100
PD-CAPS 1/4	6.4mm	2.03mm	1.98mm	100
PD-CAPS 3/8	9.5mm	2.29mm	2.08mm	50
PD-CAPS 1/2	12.7mm	2.29mm	2.54mm	25

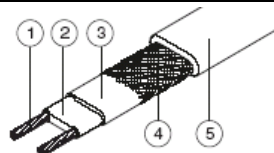
## RAYCHEM DURASEAL HEAT SHRINKABLE WATERPROOF NYLON CRIMP SPLICE

Heat shrinkable nylon crimp splices. Moisture & abrasion resistant. Duraseal devices provide a tough, environmentally sealed wire connection. Their crimp barrel or terminal, encased in rugged, heat shrinkable nylon tubing lined with a special hot metal adhesive, resists damage from abrasions & cuts.

PART No.	DESCRIPTION	COLOUR	CONDUCTOR (mm <sup>2</sup> )
D-406-0001		Red	.5 - 1.25
D-406-0002		Blue	1.5 - 2.5
D-406-0003		Yellow	4 - 6
AD-1522	Raychem Crimper for Dura seals		.5 - 6
THCRF15-HS	Termco Crimper for Heat Shrink Terminals		.5 - 10

## SELF-REGULATING HEATER CABLE

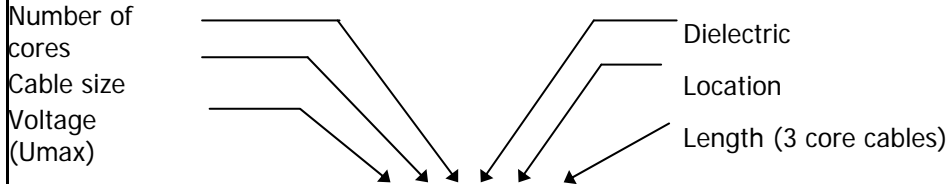
PART No.	THICKNESS	POWER OUTPUT (W/m at 10deg C)
10BTV2-CR	5.5mm	30 Watts
8BTV2-CR	5.5mm	25 Watts



# Raychem

## EPKT TERMINATIONS

Termination systems designed for polymeric and MIND paper insulated cables from 7.2kV up to 36kV. Termination systems designer, this worksheet enables you to arrive at a part number for an EPKT termination. Choose one figure from the left hand column of each table.



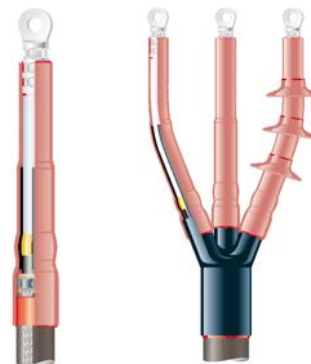
Typical part number: "EPKT-17C 3MO H3"

Voltage kV	
7	for 7.2kV
17	for 12kV & 17.5 kV
24	for 24kV
36	for 36kV



Size mm <sup>2</sup>	7.2kV	12.5 & 17.5kV	24kV	36kV
A	16-35	16-25	-	-
B	50-95	35-70	25-50	-
C	120-185	95-185	70-185	50-95
D	240-400	240-400	240-300	120-185
E	500-1000	500-800	400-630	240-500
F	-	1000	800-1000	630-1000

No of cores	
1	for single (1) core
3	for three (3) core



Dielectric or insulation type	
X	XLPE
M	for MIND non-draining paper

Location of the termination	
I	for INDOOR
O	for OUTDOOR

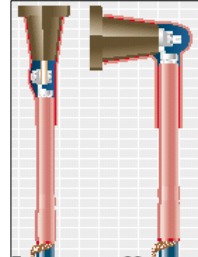
Length of the termination tails (3 core cables only)	
H1	for 450mm long
H2	for 650mm long (min for 17.5kV outdoor & 36kV indoor)
H3	for 800mm long (min for 24kV outdoor & 36kV outdoor)
H4	for 1200mm long

# Raychem

## BUSHING INSULATING SLEEVES

For use in switchgear and transformers, with compound cable boxes, where clearances are insufficient for operation in air or to protect against flash over due to rodents or extreme humidity.

APPLICATION RANGE mm <sup>2</sup>	INLINE SLEEVE PART NO.	RIGHT ANGLE SLEEVES PART NO.
10-35	RSRB 4022	RSRB 4042
50-95	RSRB 4024	RSRB 4044
120-300	RSRB 4026	RSRB 4046



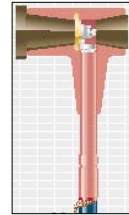
1. For voltages over 17.5kV please contact G.V.Kinsman.
2. Bushing sleeves will be sold for use on Raychem terminations only.

### AIR CLEARANCE TO AS 2067-1984 ARE:

VOLTAGE	PHASE-PHASE	PHASE-GROUND
7.2kV	104mm	90mm
12kV	184mm	160mm
24kV	320mm	280mm
36kV	440mm	380mm

## RIGHT-ANGLE INSULATED EQUIPMENT CONNECTIONS

For up to 24kV for bushings to ANSI/IEEE 386, HN52-S61 & DIN 47636. Raychem's non heat shrinkable bushing adaptors are designed to be used with Raychem plastic or paper terminations without increasing the overall length of the termination.



Provide a dead break disconnection with or without capacitive test point.

DIAMETER OF RAYCHEM'S TERMINATION	INSULATED BACK PLUG		WITH CAPACITIVE TEST POINT PLUG	
	400amp	630amp	400amp	630amp
17.5-24mm	RICS 5112	RICS 5112	RICS 5212	RICS 5213
21.5-28mm	RICS 5122	RICS 5123	RICS 5222	RICS 5223
27-35mm	RICS 5132	RICS 5133	RICS 5232	RICS 5233
32.5-42mm	RICS 5142	RICS 5143	RICS 5242	RICS 5243

## ELASTOMERIC INSULATING BUSHING BOOT

For bushings up to 17.5kV  
High-performance insulation material  
Removable and re-installable

Tool free application  
Excellent track and erosion resistance



PART NO.	CABLE SIZE	BUSHING SIZE
RCAB 4110	35-400mm <sup>2</sup>	31-45mm
RCAB 4120	35-400mm <sup>2</sup>	46-70mm