TECHNICAL MANUAL I BUILDING

16,25 and 33 HALF-ROUND TRADITIONAL GUTTERING

BUILDING SANITARY ENVIRONMENT

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25 AND 33 HALF-ROUND SYSTEMS

Traditional solvent weld or rubber gasket gutter for all types of roof.

25 and 33 half-round rainwater systems blend perfectly into traditional architectural styles. A wide range of fittings and brackets ensures they will always be in keeping with them.

ADVANTAGES

- In keeping with traditional architectural styles.
- Excellent hydraulic capacity.
- Hardwearing.
- Wide range of colours.
- Large choice of brackets for half-round solvent weld or rubber gasket systems: concealed brackets, fascia brackets, directional rafter brackets, corrugated roof brackets, mounted tile brackets.
- Self-cleaning capacity for 33 gutter.



ATEC No 14 + 5/04-923







TECHNICAL FEATURES

25 half-round	Gutter profile	Downpipe				
Used for	Detached, semi-detache	ed and suburban houses				
Characteristic	Tradition	nal style				
Shape						
Assembly	Solvent weld or rubber gasket					
Measurements						
Hydraulics	۵	6				
Budget	€	Ē				
Material	Polyvinyl	chloride				
Profile	1/2 round developed to 25	Round Ø 80				
Section	66.4 cm ²	\emptyset 80 = 46.6 cm ²				
Flat roof area served by an outlet	Ø 80 =	92 m²				
Colours	Light Grey White Sand Brown R	ed Black Green Dark grey Copper*				

*25 solvent weld assembly only 33 half-round **Gutter profile** Downpipe Used for Houses, Blocks of flats, Industrial buildings, Farm buildings Characteristic For large expanses of roof Shape Assembly Solvent welding or rubber gasket Measurements 104 Hydraulics €€ Budget Material Polyvinyl chloride Profile 1/2 round developed to 33 Round Ø 100 and Ø 125 \emptyset 100 = 73.9 cm² Section 143 cm² Ø 125 = 116.9 cm² Ø 100 = 141 m² Flat roof area served by a running outlet Ø 125 = 226 m² Colours Ø 100: Light Grey White Sand Brown Light Grey White Sand Brown Red Green Red Black Green Colours Colours Ø 125: Light Grey White Sand Brown Micola BUILDING | TECHNICAL MANUAL



EUROPEAN STANDARDS



THE **NICOLL** EXTRA Hail test:

 To prove the high mechanical resistance of its guttering systems, Nicoll has worked in close collaboration with the CSTB building engineering centre (France) The ranges of tests designed to reproduce

once-in-a-decade hailstorm conditions proved the high resistance of the Nicoll systems which have been certified by the CSTB.



EUROPEAN STANDARD NF – EN 607, for gutter profiles and fittings.

- 1. Shock testing at 0°C for one hour to test resistance in cold conditions (hail, pressure of a ladder).
- **2**. Warm and cold cycle testing, 100°C for 30' then cooled to ambient temperature.

No distortion or surface alteration detected in the **25 and 33 Half-round** gutter.

- **3**. Resistance to ageing: gutter exposed for 1600 hours to ultraviolet radiation and rain/evaporation cycles.
 - After testing, the **25 and 33 Half-round** gutters showed no discolouration and their shock resistance was unchanged.
- **4**. Watertightness: five 15' cycles with hot water at 50°C followed by 10' with cold water at 15°C.



5. Resistance to corrosion from pollution and acids.

EUROPEAN STANDARD NF – EN 1462, for gutter brackets (PVC or metal).

- 1. UV resistance for PVC the same as for gutter standard NF-EN 607.
- 2. Corrosion resistance:
 - Class A for use in a harsh atmosphere,
 - Class B for use in milder atmospheric conditions.

The **Nicoll 25 and 33 Half-round** facing and concealed brackets are in class A.

- 3. Load resistance:
 - Class H for heavy-duty brackets, test load 750N,
 - Class L for light brackets, test load 500N,
 - Class O with an opening width of less than 80mm (e.g. LG16).

The **Nicoll 25 and 33 Half-round** facia brackets are in class H.



















TECHNICAL ASSISTANCE





Custom angles

In addition to the Nicoll range, you can order any type of angle you require from the Nicoll custom parts department.



25 AND 33 HALF-ROUND Gutter profile





Brackets

There are 2 types of half-round gutter brackets for all architectural styles.

The concealed bracket (for 25 guttering only) makes the design smoother and the fascia bracket matches traditional styles.

THE NICOLL EXTRA

• The expansion union part improves the installation's performance, particularly on 4-slope roofs or between 2 fixed points (solvent weld angles), typical in some regions.



Rubber gasket system 10 11 12 13 14 15

- Fastening incorporated into the fittings (outlet and gutter union part) to form a fixed point which allows for expansion and reduces the number of brackets.



- Notched to prevent water retention.
- Position mark on ends of the gutter etched into the fitting to allow for natural variations in the profile.
- Solvent weld EPDM neoprene joint for perfect sealing.

Solvent weld system

- The solvent weld system is used for cold welding of guttering



- parts. This operation ensures perfect watertightness and excellent mechanical performance
- 2 lines of glue should be used for best results:
- One line of glue in the coupling grooves to seal the system.
- Another line of glue round the edge of the coupling to ensure the parts hold together.



25 AND 33 HALF-ROUND Gutter profile



Downpipe bracket

This fits round the pipe and has an articulated bracket which locks with a captive screw.



Single bend section

To make up for misalignment between the outlet and the downpipe.

It can also be used to make the downpipe plumb in relation to the roof pitch. Only available for Ø 80 pipes.



Double socket pipe connector

Excellent for replacing sockets or using up pieces of rainwater pipes.

Reinforced bottom downpipe

High mechanical resistance. Indispensable for PVC downpipes, it is also compatible with other commonly-used materials.

Rainwater hopper

For fitting different rainwater pipes - downpipes, horizontal terrace outlets, overflows, etc.



25 HALF-ROUND Gutter profile

25 half-round gutter system

Description	Light Grey	White	Sand	Brown	Red	Black	Green	Dark grey	Copper	
				GUTTER I	PROFILE					
1 Length 4 m.	LG25	LG25B	LG25S	LG25M	LG25R	LG25N	LG25V	LG25A	LG25C	
Length 2 m.	LG252	LG252B	LG252S	LG252M	LG252R	LG252N	LG252V	LG252A	LG252C	
			SOLVEN	IT WELD G	UTTER FI	TTINGS				
2 Central expansion outlet Ø 80	NAD25	NAD25B	NAD25S	NAD25M	NAD25R	NAD25N	NAD25V	NAD25A	NAD25C	
Central expansion outlet S Ø 100	NADT25	NADT25B	NADT25S	NADT25M	NADT25R	NADT25N	NADT25V	NADT25A	NADT25C	2 3
Central expansion outlet outlet 90 x 56	NADN25	NADN25B	NADN25S	NADN25M	NADN25R	NADN25N	NADN25V	NADN25A	NADN25C	
3 Central outlet Ø 80	NAC25	NAC25B	NAC25S	NAC25M	NAC25R	NAC25N	NAC25V	NAC25A	NAC25C	
Central outlet Ø 100	NACT25	NACT25B	NACT25S	NACT25M	NACT25R		NACT25V		NACT25C	
4 90° internal or external angle	ANC25	ANC25B	ANC25S	ANC25M	ANC25R	ANC25N	ANC25V	ANC25A	ANC25C	4 5
5 135° angle	ANC525	ANC525B	ANC525S	ANC525M	ANC525R	ANC525N	ANC525V	ANC525A	ANC525C	
Expansion piece	BEC25	BEC25B	BEC25S	BEC25M	BEC25R	BEC25N	BEC25V	BEC25A	BEC25C	
6 Expansion coupling	JND25	JND25B	JND25S	JND25M	JND25R	JND25N	JND25V	JND25A	JND25C	6 7
7 Gutter coupling	JNC25	JNC25B	JNC25S	JNC25M	JNC25R	JNC25N	JNC25V	JNC25A	JNC25C	
8 Universal stopend outlet	FCN25	FCN25B	FCN25S	FCN25M	FCN25R	FCN25N	FCN25V	FCN25A	FCN25C	8 9
D	ECG25	ECC25B	EC 0258	ECG25M	ECC/25P	EC G25N	EC C 25V	ECC254	ECG25C	1.51
9 Oniversal gutter stopend	FCG25	FGG25B	FCG255	FGGZJIWI	FGGZJN	FGGZJN	FCG25V	FCG25A	FGG23C	
			RUB	BER GASP		IGS			10	11
Central outlet	NC25	NC25B	NC25S	NC25M	NC25R	NC25N	NC25V	NC25A		
11 90° internal angle	AI25	AI25B	AI25S	AI25M	AI25R	AI25N	AI25V	AI25A	1	
12 90° external angle	AE25	AE25B	AE25S	AE25M	AE25R	AE25N	AE25V	AE25A	12	13
Gutter union part G	JN25	JN25B	JN25S	JN25M	JN25R	JN25N	JN25V	JN25A	0	10
14 Stopend outlet	FNJ25	FNJ25B	FNJ25S	FNJ25M	FNJ25R	FNJ25N	FNJ25V	FNJ25A	14	15
E Gutter stopend	FGJ25	FGJ25B	FGJ25S	FGJ25M	FGJ25R	FGJ25N	FGJ25V	FGJ25A		and the second s
			(GUTTER B	RACKETS					
16 Concealed facing bracket	BHGB25	BHGB25B	BHGB25S	BHGB25M	BHGB25R	BHGB25N	BHGB25V	BHGB25A	BHGB25C	and a second
Rack					KCB25					
17 Plastic facing bracket	GB25P	GB25PB	GB25PS	GB25PM	GB25PR	GB25PN	GB25PV	GB25PA	GB25PC	-
17bis Directional rafter bracket	GC025P	GC025PB	GC025PS	GC025PM						
18 Mounted tile bracket			GT25PMS							C
Mounted bracket (for corrugated roofs)	G025PM	G025PMB	G025PMS	G025PMM	G025PMR	G025PMN	G025PMV	G025PMA	G025PMC	10
Non-mounted bracket	G025P	G025PB	G025PS	G025PM	G025PR	G025PN	G025PV	G025PA	G025PC	6
Single 25 PVC bracket for metal accessory	BERG025P	BERG025PB	BERG025PS	BERG025PM	BERG025PR	BERG025PN	BERG025PV	BERG025PA	BERG025PC	U

25 HALF-ROUND Downpipe

25 Ø 80 Half-round downpipe system

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Description	Light Grey	White	Sand	Brown	Red	Black	Green	Dark grey	Copper	
			DO	WNPIPE Ø	80 PROFI	LE				
19 Length 4 m.	TD80	TD80B	TD80S	TD80M	TD80R	TD80N	TD80V	TD80A	TD80C	
Length 3 m.	TD803	TD803B	TD803S	TD803M	TD803R	TD803N	TD803V	TD803A	TD803C	
Length 2 m.	TD802	TD802B	TD802S	TD802M	TD802R	TD802N	TD802V	TD802A	TD802C	
			D	OWNPIPE	FITTINGS	\$				
20 67°30 male-female branch	BR16GT	BR16GTB	BR16GTS	BR16GTM	BR16GTR	BR16GTN	BR16GTV	BR16GTA	BR16GTC	
21 20° single socket bend	CR2GT	CR2GTB	CR2GTS	CR2GTM	CR2GTR	CR2GTN	CR2GTV	CR2GTA	CR2GTC	22
22 45° single socket bend	CR4GT	CR4GTB	CR4GTS	CR4GTM	CR4GTR	CR4GTN	CR4GTV	CR4GTA	CR4GTC	5 10
23 67°30 single socket bend	CR6GT	CR6GTB	CR6GTS	CR6GTM	CR6GTR	CR6GTN	CR6GTV	CR6GTA	CR6GTC	
24 87°30 single socket bend	CR8GT	CR8GTB	CR8GTS	CR8GTM	CR8GTR	CR8GTN	CR8GTV	CR8GTA	CR8GTC	
25 45° double socket bend	CR44GT	CR44GTB	CR44GTS	CR44GTM	CR44GTR		CR44GTV		CR44GTC	
26 67°30 double socket bend	CR66GT	CR66GTB	CR66GTS	CR66GTM	CR66GTR	CR66GTN	CR66GTV	CR66GTA	CR66GTC	27
27 87°30 double socket bend	CR88GT	CR88GTB	CR88GTS	CR88GTM	CR88GTR		CR88GTV		CR88GTC	
28 15° single socket bend section	SR1GT	SR1GTB	SR1GTS	SR1GTM	SR1GTR	SR1GTN	SR1GTV	SR1GTA	SR1GTC	28 29
29 30° single socket bend section	SR3GT	SR3GTB	SR3GTS	SR3GTM	SR3GTR	SR3GTN	SR3GTV	SR3GTA	SR3GTC	
30 Double socket pipe connector	JRGT	JRGTB	JRGTS	JRGTM	JRGTR	JRGTN	JRGTV	JRGTA	JRGTC	
31 Single socket coupling	ZRGT	ZRGTB	ZRGTS	ZRGTM	ZRGTR	ZRGTN	ZRGTV	ZRGTA	ZRGTC	1
32 Downpipe outlet	JAM80	JAM80B	JAM80S	JAM80M	JAM80R	JAM80N	JAM80V	JAM80A	JAM80C	1
Rainwater hopper	BAO80	BAO80B	BAO80S	BAO80M	BAO80R				BAO80C	
			REINFO	RCED BOT	TOM DOV	VNPIPE				
33 Traditional straight - 1m	DDF10R	DDF10RB	DDF10RS							88 85 6
Traditional with bend - 1m	DCF10R	DCF10RB	DCF10RS							
Straight coupling - 1m	DD10R									
Elbow coupling - 1m	DC10R									
				PIPE BR	ACKETS					, in the second s
34 Pipe brackets with screws	CORGT	CORGTB	CORGTS	CORGTM	CORGTA	CORGTA	CORGTR	CORGTV	CORGTC	00
Pipe clip	CO80GT	CO80GTB	CO80GTS							1
Safety strap					AC80GT					Y



33 Half-round gutter system

Description	Light grey	White	Sand	Brown	Red	Green	
			GUTTER PROP	FILE			
Length 4 m.	LG33	LG33B	LG33S	LG33M	LG33R	LG33V	
		SOLVEN	IT WELD SYST	EM FITTINGS			
2 Central expansion outlet Ø 100	NAD33	NAD33B	NAD33S	NAD33M	NAD33R	NAD33V	2 2
Central expansion outlet Ø 125	NAD333	NAD333B	NAD333S	NAD333M	NAD333R	NAD333V	YY
Central outlet Ø 100	NAC33	NAC33B	NAC33S	NAC33M	NAC33R	NAC33V	-
Central outlet Ø 125	NAC333	NAC333B	NAC333S				
4 90° solvent weld angle	ANC33	ANC33B	ANC33S	ANC33M	ANC33R	ANC33V	8
5 135° solvent weld angle	ANC533	ANC533B	ANC533S	ANC533M	ANC533R	ANC533V	S
T Expansion piece	BEC33	BEC33B	BEC33S	BEC33M			
6 Expansion Union part	JND33	JND33B	JND33S	JND33M	JND33R	JND33V	- 11
7 Gutter union part	JNC33	JNC33B	JNC33S	JNC33M	JNC33R	JNC33V	1
Universal outlet stopend	FCN33	FCN33B	FCN33S	FCN33M	FCN33R	FCN33V	
Universal outlet stopend	FCG33	FCG33B	FCG33S	FCG33M	FCG33R	FCG33V	
	/	RUB	BER GASKET F	ITTINGS			
10 Central outlet Ø 100	NC33		NC33S	NC33M			
10bbs Central outlet Ø 125	NC333		NC333S				
Image <tr< td=""><td>AI33</td><td></td><td>AI33S</td><td></td><td></td><td></td><td></td></tr<>	AI33		AI33S				
12 90° external angle G	AE33		AE33S				
S Gutter union part E T	JN33	JN33B	JN33S	JN33M			U
				KEIS			
17 Plastic fascia bracket	GB33P	GB33PB	GB33PS	GB33PM	GB33PR	GB33PV	U
Mounted (corrugated roofs)	G033PM		G033PMS	G033PMM	G033PMR		
Non-mounted	G033P		G033PS	G033PM			
Single 33 PVC bracket for metal accessory	BERG033P	BERG033B	BERG033S	BERG033M	BERG033R	BERG033V	
			DRIP EDGE				
36 Length 2m	LARM18	LARM18B	LARM18S	LARM18M	LARM18R	LARM18V	

33 HALF-ROUND Downpipe

Ø 33 100 and Ø 125 Half-round downpipe system

Description	Light grey	White	Sand	Brown	Red	Black	Green	Dark grey	
		DC	WNPIPE Ø	100 AND Ø	125 PROF	LE			
	TD100 ⁽¹⁾	TD100B (1)	TD100S (1)	TD100M ⁽¹⁾	TD100R ⁽¹⁾	TD100N (1)	TD100V (1)	TD100A (1)	
19 Length 4 m.	TD102 (1)*		TD102S (1)*						
*Holder of brand NF-EP	TD125 ⁽²⁾	TD125B (2)	TD125S (2)	TD125M (2)					
		DC		100 AND 0		108			
		DC		TOU AND &		165			100 C
	BT16GT (1)	BT16GTB (1)	BT16GTS (1)	BT16GTM (1)	BT16GTR (1)	BT16GTN (1)	BT16GTV (1)	BT16GTA (1)	
20 67°30 male-female branch	BX16GT (2)	BX16GTB (2)	BX16GTS (2)						
21 20° single socket bend	CT2GT (1)		CT2GTS (1)						22 23
	CT4GT ⁽¹⁾	CT4GTB (1)	CT4GTS ⁽¹⁾	CT4GTM ⁽¹⁾	CT4GTR ⁽¹⁾	CT4GTN ⁽¹⁾	CT4GTV ⁽¹⁾		
22 45° single socket bend	CX4GT ⁽²⁾	CX4GTB ⁽²⁾	CX4GTS ⁽²⁾						
67°20 single pocket hand	CT6GT ⁽¹⁾	CT6GTB (1)	CT6GTS ⁽¹⁾	CT6GTM ⁽¹⁾	CT6GTR ⁽¹⁾	CT6GTN ⁽¹⁾	CT6GTV ⁽¹⁾	CT6GTA ⁽¹⁾	24
23 67 30 single socket bend	CX6GT (2)	CX6GTB ⁽²⁾	CX6GTS ⁽²⁾	CX6GTM ⁽²⁾					
24 97°20 single socket hand	CT8GT ⁽¹⁾	CT8GTB ⁽¹⁾	CT8GTS ⁽¹⁾	CT8GTM ⁽¹⁾	CT8GTR ⁽¹⁾	CT8GTN ⁽¹⁾	CT8GTV ⁽¹⁾		No.
	CX8GT (2)	CX8GTB ⁽²⁾	CX8GTS ⁽²⁾						
25 45° double socket bend	CT44GT (1)	CT44GTB ⁽¹⁾	CT44GTS ⁽¹⁾						
26 67°30 double socket bend	CT66GT ⁽¹⁾	CT66GTB ⁽¹⁾	CT66GTS ⁽¹⁾	CT66GTM	CT66GTR				27
27 87°30 double socket bend	CT88GT (1)	CT88GTB ⁽¹⁾	CT88GTS ⁽¹⁾						
	JTGT (1)	JTGTB ⁽¹⁾	JTGTS ⁽¹⁾	JTGTM ⁽¹⁾	JTGTR (1)	JTGTN ⁽¹⁾	JTGTV (1)	JTGTA ⁽¹⁾	-
30 Double socket pipe connector	JXGT ⁽²⁾	JXGTB ⁽²⁾	JXGTS ⁽²⁾	JXGTM ⁽²⁾					3
27 Single appliet opubling	ZTGT (1)	ZTGTB ⁽¹⁾	ZTGTS ⁽¹⁾	ZTGTM ⁽¹⁾	ZTGTR ⁽¹⁾	ZTGTN ⁽¹⁾	ZTGTV ⁽¹⁾	ZTGTA ⁽¹⁾	-
	ZXGT ⁽²⁾	ZXGTB ⁽²⁾	ZXGTS ⁽²⁾						
22 Downpipe outlet	JAM100 ⁽¹⁾	JAM100B (1)	JAM100S ⁽¹⁾	JAM100M ⁽¹⁾	JAM100R ⁽¹⁾	JAM100N ⁽¹⁾	JAM100V ⁽¹⁾		1
Rainwater hopper Ø 100	BAO100 ⁽¹⁾	BAO100B ⁽¹⁾	BAO100S (1)	BAO100M ⁽¹⁾	BAO100R ⁽¹⁾	BAO100N (1)	BAO100V (1)		
Rainwater hopper Ø 110	BAO110 ⁽¹⁾								6
Concentric reducer Ø 100/80	RE338 ⁽¹⁾	RE338GTB (1)	RE338S ⁽¹⁾	RE338M ⁽¹⁾	RE338R ⁽¹⁾	RE338N (1)	RE338V (1)		
		F	EINFORCE	DBOTTOM	DOWNPIP	E			33 _ 24 _
33 Traditional straight - 1m	DDF10T (1)	DDF10TB (1)	DDF10TS (1)						
Traditional with bend - 1m	DCF10T (1)	DCF10TB (1)	DCF10TS (1)						
Straight fitting - 1m	DD10T (1)								
Elbow fitting - 1m	DC10T (1)								1 L
			PIPE BRAC	KETS Ø 1 <u>00</u>	AND Ø 12	5			
34 Pipe bracket with screws					COTGTR (1)	COTGTN (1)	COTGTV (1)	COTGTA (1)	
	CO100GT (1)	COXGIB	CO100GTS (1)	COXGTM ⁽²⁾					P
Pipe Clip	CO125GT (2)								
Safety strap				AC100GT (1)					
⁽¹⁾ Ø 100 ⁽²⁾ Ø 125				A012001 14					
~ 100 0 120									



GENERAL RULES

Installing a gutter system.

REGULATIONS

The rules for sizing of rainwater installations are those given in the code of practice DTU 60-11.

Nicoll gutters and brackets comply with European standards

NF EN 607 and NF EN 1462.

The 25 half-round gutter is approved by the CSTB.

Standards reference documents	
DTU 60.11	
European standard NF EN 607 N° 5 + 15/79-279.	

CALCULATION OF ROOF AREA TO GUTTER



			END	OUTLET	CENTRAL OUTLET		
MAXIMUM ROOF AREA			Pitch 0.39	6 (3mm/m)	PPitch 0.3% (3mm/m)		
Flat roof served by	a runr	ning outlet		T			
		Downpipe	Output (m³/h)	SEMT (m²)	Output (m³/h)	SEMT (m²)	
	LG16	Ø50	1,9	25	5,5	73	
	1 6 2 5	Ø80	7,5	92	20	067	
Half-round gutter		Ø100		141		207	
	1 6 3 3	Ø100	18	240	45	600	
	Lass	Ø125		240		000	

EXPANSION ALLOWANCE

Expansion coef.: 0.7mm x metre x 10°C temperature difference





If the installation is like fig. A "straight line with no incline" and does not exceed 12m, a solvent weld outlet will be adequate. Expansion will occur at the free end of the installation away from the downpipe. If the installation is like fig. B "line blocked at both ends or at the end away from the downpipe" and does not exceed 12m, an expansion outlet will be required.



If the installation exceeds 12m and is like fig. C "straight line with or without incline", two solvent weld outlets and an expansion piece* will be required. The spacing between two outlets should not exceed 24m.



If the installation runs rounds a roof with 4 slopes, as in fig. D, expansion outlets and expansion pieces will be required.*



1- FITTING THE GUTTER PROFILE

The LG25/LG33 half-round gutter system is entirely compatible with the BELRIV[®] eaves system.

a. Fitting systems



Fitting to a header board

• Fit the facing brackets to the board at regular intervals of no more than 0.50m.



Fitting to rafters

• Fit the brackets to a flat or twisted bracket so the gutter can be placed on the top or the side of the rafter. Space them at regular intervals of no more than 0.50m.



Fitting to layered tiles

 Stretch a twine and drill 2 holes in the tile to fit the metal accessory. This galvanised part can be used instead of a tile bracket.

Fitting to tiles

 Fit the brackets to a galvanised clamp at the top of the curve so that the drainage channel stays free.
Space them at regular intervals of no more than 0.50m.

b. Fitting the outlet





- 1 Fitting a solvent weld outlet, expansion outlet or rubber gasket outlet
- Establish the position of the outlets vertically to the rainwater inspection box.
- Fit the outlet onto the fascia board to make a fixed point for the gutter to move smoothly.



- 2 Fitting a solvent weld or seal joint collector
- Lay a line of glue round the stopend groove inside the gutter.
- Assemble immediately with a straight movement.
- Wait a few minutes before handling.
- The rubber gasket is clipped (from back to front) into the outlet.





c. Fitting the gutter brackets



- Establish the position of the outlet and fit the end brackets at 50mm from the fittings to allow the gutter to expand freely.
- The solvent weld outlet will be fitted along with the gutter profile.



- This type of gutter requires a flat surface or low pitch.
- TStretch a twine between the end brackets to ensure proper alignment. Screw in the brackets (2 screws per bracket) or fit them with a Belriv[®] plate (ref. ASC) at regular intervals of no more than 0.50m.



LG 25/33 HALF-ROUND

1 - FITTING THE GUTTER PROFILE (continued)

d. Fitting the gutter



- 1 Cutting the profile
- Cut the profile with a handsaw and smooth the edges with fine emery paper.



- 2 Fitting the gutter
- Place the back of the gutter first and then engage the profile into the front of the bracket.



- 3 Adjusting the profile in the expansion outlet
- Slot the gutter profile into the expansion outlet, aligning the end against the ambient temperature mark.



- 4 Fitting a solvent weld or rubber gasket stopend
- Apply a regular line of glue in the stopend grooves.
- Apply glue to the smooth inside surface of the stopend.
- Assemble immediately with a straight movement.
- The seal joint stopend is clipped (from back to front) into the gutter profile.

e. Fitting an angle with a solvent weld fitting



- Apply a regular line of glue in the fitting grooves.
- Apply glue to the smooth inside surface of the stopend.
- Assemble immediately with a straight movement.
- Wait a few minutes before handling.
- Make a visual check to see that the angle is properly solvent weld to the profile.

f. Fitting a rubber gasket angle and rubber gasket union part



- Fit the union part to the fascia board and clip the gutter inside, starting with the heel.
- Exactly align the ends of the gutter parts with the marks etched into the fittings.
- A seal joint gutter angle should be supported by 2 gutter brackets no more than 5cm apart.

g. Fitting a 25 expansion piece





- Apply a regular line of glue in the fitting grooves. Spread glue over the smooth inside surface. Assemble immediately with a straight movement.
- If there are more than 2m between 2 angles, it is best to fit a 25 expansion piece.
- Slide the 25 expansion piece until it is aligned with the ambient temperature mark.





NB: solvent weld fittings should never be used with rubber gasket fittings.

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2 - FITTING THE DOWNPIPE

a. Preparing the S fitting



- Prepare the top S by joining 2 bends with a piece of pipe for half-round at least 46mm long.
- Do not glue the first bend to the outlet so they will come apart easily but do glue the bend sockets to the downpipe.

b. Fitting the downpipe clamps



- Mark the position of the first pipe bracket.
- This must be under the S fitting.
- Use a plumb line and square to mark the vertical alignment on the wall.
- Do a "dummy" assembly of the pipes to mark the position of the pipe brackets. To prevent the parts from sliding down, fix a clamp under each fitting.
- Fasten the clamps to the wall with brackets or dowel pins.
- To hold the downpipe, put clamps at approx. 2m intervals.
- The pipe is fastened by clipping the clamps. These can only be unclipped with a screwdriver.
- Use a fitting to join 2 downpipes. The male socket must be glued but the female socket allowed to expand freely when the pipe is placed against the mark.

d. Fitting the downpipes



- Cut the downpipe using a handsaw and the OVATION[®] cutting gauge. Smooth the edges with fine emery paper.
- Put the pipes in place and close the clamps.
- If there are 2 sections of roof to service, use a downpipe collector or a branch.

e. Fitting the reinforced bottom downpipe

- Slot the reinforced bottom downpipe into the standard downpipe with the end of the pipe facing the mark etched on the shoe
- Remember to put a pipe bracket under the downpipe fitting.



f. Connecting to a rainwater inspection box or round storm drain





• The universal outlet is connected at one end to the half-round downpipe, facing the temperature mark, and at the other to a round pipe or catch basin. The TD95 downpipe is connected to a storm drain with centric or eccentric outlets.



16 HALF-ROUND

The usual format for small roofs.

The **16 half-round** gutter system is the best solution for small roofs. It is very easy to fit and can be used with most roofing materials.

TECHNICAL FEATURES



ADVANTAGES

- Easy to fit.
- Can be used with most roofing materials (thick or thin) including glass and plastic.
- Hydraulic capacity adequate for small roofs.
- One end piece for 4 functions with the universal gutter stopend and outlet stopend.

LG 16 Half-round	Gutter profile Downpipe						
Used for	Garde	Garden sheds, verandas					
haracteristics	Fo	r small :	surfaces				
Shape	-						
Assembly	Rubber gasket system						
Measurements							
Hydraulics							
Budget	€						
Material	Polyvinyl chloride						
Profile	1/2 round developed to	16	Round Ø 50				
Section	24.8 cm ²	Ø 50 = 17.3 cm ²					
Flat roof area served by a collector	20 m ²		Ø 50	= 20 m ²			
Colours	Light Grey Whi	ite	Sand	Brown			

Co-extrusion

The inside surface is partly made of recycled PVC. The outside surface is perfect because it is made of new PVC with a concentration of pigments developed to resist ultra-violet rays.

Marking

All the profiles and fittings are marked so they are easy to identify for making extensions.





16 HALF-ROUND Profile and Downpipe

16 Ø 50 half-round gutter and downpipe system

Description	Light Grey	White	Sand	Brown	
	(GUTTER AND DOWNPI	PE PROFILE		
Length 4 m.	LG16	LG16B	LG16S	LG16M	
Length 2 m.	LG162	LG162B	LG162S	LG162M	1 martine
Length 4 m.	TD50	TD50B	TD50S	TD50M	
	/	RUBBER GASKET	FITTINGS		
Central outlet	NC16	NC16B	NC16S	NC16M	CL
T Fitting T	JN16	JN16B	JN16S	JN16M	L
I 90° inside angle N	Al16	AI16B	AI16S	Al16M	
90° outside angle G	AE16	AE16B	AE16S	AE16M	
Universal gutter and outlet stopend	FCN16	FCN16B	FCN16S	FCN16M	
		DOWNPIPE FITT	INGS		
67°30° single socket bend	CJ6GT	CJ6GTB	CJ6GTS	CJ6GTM	
87°30 single socket bend	CJ8GT	CJ8GTB	CJ8GTS	CJ8GTM	
67°30 single socket branch	BJ16GT	BJ16GTB	BJ16GTS	BJ16GTM	40
45° single socket bend	CJ4GT	CJ4GTB	CJ4GTS	CJ4GTM	9
Double socket pipe connector	JJGT	JJGTB	JJGTS	JJGTM	
Single socket coupling	ZJGT	ZJGTB	ZJGTS	ZJGTM	1
		GUTTER BRACK	KETS		
Fascia brackets	GB1	GB1B	GB1S	GB1M	1 16
Corrugated roof bracket with set of wedges	G04	G04B	G04S	G04M	VAV
Fitting system for outlets and union part with set of wedges	2EM04	2EM04B	2EM04S	2EM04M	and and all
		PIPE BRACKE	TS		
Pipe clip	CO50GT	CO50GTB	CO50GTS	CO50GTM	Q
Safety strap		AC5	0GT		



CATCH BASINS AND RAINWATER GULLIES

DESCRIPTION

- Single piece with wedged female sockets to open with a hammer.
- Clip-on extension.
- Cover in light grey or sand (for pedestrian applications only), pre-cut for Ø 80 and 100 drainpipes.
- PVC grating in light grey or sand, withstands a load of 1.5T if the box is set in concrete.
- 30 x 30 PVC buffer in light grey or sand, withstands a load of 1.5T if the box is set in concrete.

25 x 25 catch basin (inside measurements)

Description	Light grey	Sand
I 25 x 25 PP box with Ø 100 sockets		RPCT
2 PP extension of +12.5cm	RERPCT	
3 PP cover (pedestrian)	CORPCT	CORPCTS
Frameless PVC grating, withstands a load of 1.5T when box set in concrete	GR25	GR25S
5 Adapter for Ø 110mm pipes	ZVT	



30 x 30 catch basin (inside measurements)

Description	Light grey	Sand
1 30 x 30 PP box with Ø 100-125 sockets	RETX	
30 x 30 PP box with Ø 75-90-110 sockets	RESV	
2 PP clip-on extension of +15cm for Ø 100 socket	RERETX	
3 Clip-on PP cover (pedestrian)	CORETX	CORETXS
4 Frameless PP buffer class A15 (1.5T)	TR30	TR30S
5 Frameless PP grating class A15 (1.5T)	GR30	GR30S





Trapped rainwater gully



(100 ±00 inlata
Ø 80-100 mets
Horizoptal outlat
Honzonitai outiet
Ø 110

RPCRTVH







Trapped rainwater gully

VERTICAL OUTLET





Untrapped rainwater gully

VERTICAL OUTLET

Light grey Reference Inlets Ø 75-80-90-100-110 Vertical outlet Ø 110

RPCPVVV





No water seal to prevent formation of ice.



DRIP EDGE

To guide rainwater and protect soffits.

The drip edge is designed to guide rainwater into the gutter when the eaves are not deep enough. This prevents the rainwater from penetrating between the façade and gutter. It also protects the fascia board.



ADVANTAGES

- Extruded PVC profile with anti-UV treatment, labelled U.
- Available in 7 colours: Light Grey, White, Sand, Brown, Red, Black and Green.

Oblong holes to fasten the drip edge.

Anti-capillarity ribbing to prevent damp rising up to the roof.

Drip groove to guide rainwater into the gutter.



ASSEMBLY

With slates



The drip edge is fastened onto the batten. Use big-headed nails and nail the drip edge through the oblong holes. Space the nails at regular intervals at most 50cm apart. The drip edge should reach at least 15mm into the profile depending on the gutter model.

With tiles



When the tiles do not reach far enough into the gutter, rainwater is likely to penetrate between the facing board and the gutter.



The drip edge guides the rainwater into the gutter and prevents it from penetrating into the facing board.



The drip edge is fastened to the end roof batten. Use big-headed nails and nail the drip edge through the oblong holes. Space the nails at regular intervals at most 50cm apart. The drip edge should reach at least 15mm into the profile depending on the gutter model.

Joining and fastening 2 sections of drip edge



Cut 10cm across the anti-capillarity ribbing with a knife. Overlap the two sections without gluing, having regard to the prevailing wind. Match 2 oblong holes and nail the profiles together.



When the 2 drip edge sections have been joined, nail them in place with big-headed nails at regular intervals at most 50cm apart.

Fitting with roofing foil



The soffit screen lies on the top of the drip edge. It is nailed or stapled to it on the end supporting batten or facing board.

Description	light Grey	White	Sand	Brown	Red	Black	Green	
Length 2 m.	LARM18	LARM18B	LARM18S	LARM18M	LARM18R	LARM18N	LARM18V	Z
Packs: 10 lengths of 2m								



ACCESSORIES

De

Metal accessories

Description		1
1 Galvanised tile bracket	СТ	U
2 Galvanised bracket	EO70G	СТ
3 Galvanised "alligator" bracket, adjustable from 3 to 38mm	EOALI	
4 Galvanised twisted bracket	HCH25	
5 Galvanised bracket length 235mm	HCC25	4
Galvanised bracket length 335mm	HCL25	
6 Galvanised Redwork bracket		
for 25 and 33 brackets	CG	U
for 28 and 38 brackets	CGO	HCH25





2

5

EO70G

HCC25

3

6

EOALI

CG

Leafguard for outlets Ø 80 - Ø 100 - Ovation®

USE

- To prevent downpipes getting blocked by leaves, pine needles or moss.
- The Nicoll leafguard is the solution to keep the water flowing freely in the gutters.
- It can be fitted to all Ø 80 and Ø 100 outlets and outlets in the Ovation $^{\rm @}$ system.

DESCRIPTION

• Entirely made of black polypropylene with anti-UV reinforcement and shock resistance.



Ø 50 and Ø 80 rainwater outlets for gutter eaves

FOR EASY FITTING TO ALL FLAT-BOTTOMED GUTTERS:

- Without restricting water flow.
- Preventing leaves from entering.

DESCRIPTION

- Entirely made of grey polyvinyl chloride (PVC), the collectors include:
- **1** a leafguard: designed to keep the water flowing freely in the gutter.
- 2 a body with a sealing joint.
- **3** a male end for a downpipe of Ø 50 and Ø 80. It screws onto the leafguard.

ASSEMBLY

- Make a hole with a crown saw in the bottom of the gutter and assemble the parts on it.
- Slot in the downpipe without gluing so that it can be easily removed.

Bird stop













Ø	References	Ø of crown saw to use	
Ø 50	NPC50	44 ou 48	

- This is fitted under the curve of a tile and easily adapts the shape owing to its flexibility.
- Tile colour to blend in discreetly.

Description	Tile
Bird Stop	PIAF2

• The seal is fitted before the roof and nailed onto the batten, usually below the front row of tiles or corrugated sheets.

Description	Tile
Bird comb	KLOTR

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NICOLL is ISO 9001v2008 and ISO14001v2004 certified

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