



PT. ALIA JAYA ANUGERAH
Distributor Perpipaan di Indonesia



akatherm

Specialist Drainage Systems

Acoustic Soil & Waste System

Specification manual

Reference projects



Airport Bandara
Gusti Ngurah Rai - Indonesia



Gallery West
Kebun Jeruk Jakarta - Indonesia



Marssa Al Seef
Dubai - U.A.E.



Hotel Conference and Spa
Seroc - Poland



Orbis Apartments
Melbourne - Australia



Residential Tower Odra
Wroclaw - Poland



ANWA Tower by Omniyat
Dubai - U.A.E.



Hotel Panghegar
Bandung - Indonesia



Hotel The Langham
Jakarta - Indonesia



Teras Kota Hotel
Cawang - Indonesia



Lootah Hospital
Dubai - U.A.E.



Royal Oman Police Hospital
Masqat - Oman



Eiffel Buildings
Dubai - U.A.E.



Stadium Euro
Wroclaw - Poland



Sunrise Pearl Hotel and Spa
Paralimni - Cyprus



Reference projects



St. Regis Habtoor Polo Resort and Villas
Dubai - U.A.E.



Hotel Club Mirage
Bali - Indonesia



Saifi Crown Tower
Beirut - Lebanon



Hotel Eistin
Cenggu - Indonesia



Intercontinental Hotel
Bali - Indonesia



European Music Centre
Lustawice - Poland



Hotel Ibis Jakarta Cawang
Cawang Jakarta - Indonesia



Sea Face Tower
Abu Dhabi - U.A.E.



Hotel Swissbell
Bali - Indonesia



Reggata Apartments
Tahap - Indonesia



The Elements Apartments
Jakarta - Indonesia



Semarang Town Square
Semarang - Indonesia



Kempsey District Hospital
Kempsey - Australia



Samasta Lifestyle Village
Jimbaran - Indonesia



Towers Residence
Prague - Czech Republic

System and material properties

System and material properties

The Akatherm dBlue system is made from a state-of-the-art combination of plastic and sound absorbing mineral filler (PP-MD). The material formula is developed by the Aliaxis R&D laboratory and offers a unique combination of acoustic performance, weight, resistance and mechanical strength. The triple-layer pipe structure is produced using latest co-extrusion technology. Each layer has its own function optimised to reduce sound levels, increase mechanical characteristics and improve the drainage flow.

Technical specifications

Property	Value
Material	PP-MD mineral-reinforced (pipes and fittings)
Size range	DN40 to DN200
Wall thickness	DN40-50 : 1,8 mm, DN75 : 2,3 mm, DN200 : 6,2 mm DN90 : 2,8 mm, DN110 : 3,4 mm DN125 : 3,9 mm, DN160 : 4,9 mm
Area of application	Drainage pipes in buildings and above ground installation
Chemical resistance	Polypropylene basis No waste water containing benzene Rubber ring made of SBR
Application	Waste water with pH value 2 - 12 Waste water temperature up to 90°C (continuous load) and 95°C for brief periods
Application area (EN1519)	Inside buildings (B) : DN40 to DN50 Inside and under the buildings (BD) : ≥DN 75
Density	Mineral filled layer: 1,4 g/cm ³
Coefficient of thermal expansion	0,10 mm/mK
Coefficient of thermal conductivity	0,25 W/mK
Ring stiffness	> 4 kN/m ²
Colour	Internal layer: light grey (RAL7040) Middle layer: grey External layer: blue (RAL5012)
Structure	Triple-layer pipe Uniform fitting
Connection	Rubber ring joint socket with factory-installed lip sealing ring
Fire behaviour	B2 (normally inflammable) DIN 4102-1 E (normally inflammable) EN 13501-1
Standards and approvals	System tested according to EN1451. Refer to the chapter about approvals, standards and quality.
Sound insulation	0,5 l/s 14 dB 1,0 l/s 16 dB 2,0 l/s 16 dB 4,0 l/s 18 dB All tests were carried out in the accredited Institute for Building Physics Fraunhofer in Germany.
Independent monitoring	Süddeutsches Kunststoffzentrum (SKZ), Germany

Table 3.1

Product range

8 Product range

1. Dimensions

The dimensions of the pipe and fittings in the product tables are all in mm unless stated differently. The standard wall thickness of the fittings is not included in the tables, but can be found in the table below.

Diameter d_1	Wall thickness e
40	1,8
50	1,8
75	2,3
90	2,8
110	3,4
125	3,9
160	4,9
200	6,2

Table 8.1

8.2 Abbreviations

Abbreviation	
DN_1	Nominal dimension
d_n / d_1	External dimension fitting/pipe
Z_1	Length until insertion point
α°	Angle of fitting
L	Total length fitting
l_1	Partial length of fitting

Table 8.2

Pipes

Pipe with socket

PP-MD

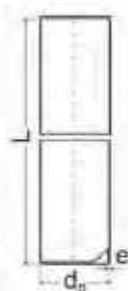


d_s	Code	L	e
40	PPA-040-018-015-D	150	1,8
40	PPA-040-018-025-D	250	1,8
40	PPA-040-018-050-D	500	1,8
40	PPA-040-018-100-A	1000	1,8
40	PPA-040-018-150-A	1500	1,8
40	PPA-040-018-200-A	2000	1,8
40	PPA-040-018-300-A	3000	1,8
50	PPA-050-018-015-D	150	1,8
50	PPA-050-018-025-D	250	1,8
50	PPA-050-018-050-D	500	1,8
50	PPA-050-018-100-A	1000	1,8
50	PPA-050-018-150-A	1500	1,8
50	PPA-050-018-200-A	2000	1,8
50	PPA-050-018-300-A	3000	1,8
75	PPA-075-023-015-D	150	2,3
75	PPA-075-023-025-D	250	2,3
75	PPA-075-023-050-D	500	2,3
75	PPA-075-023-100-A	1000	2,3
75	PPA-075-023-150-A	1500	2,3
75	PPA-075-023-200-A	2000	2,3
75	PPA-075-023-300-A	3000	2,3
90	PPA-090-028-015-D	150	2,8
90	PPA-090-028-025-D	250	2,8
90	PPA-090-028-050-D	500	2,8
90	PPA-090-028-100-A	1000	2,8
90	PPA-090-028-150-A	1500	2,8
90	PPA-090-028-200-A	2000	2,8
90	PPA-090-028-300-A	3000	2,8
110	PPA-110-034-015-D	150	3,4
110	PPA-110-034-025-D	250	3,4
110	PPA-110-034-050-D	500	3,4
110	PPA-110-034-100-A	1000	3,4
110	PPA-110-034-150-A	1500	3,4
110	PPA-110-034-200-A	2000	3,4
110	PPA-110-034-300-A	3000	3,4
125	PPA-125-039-015-D	150	3,9
125	PPA-125-039-025-D	250	3,9
125	PPA-125-039-050-D	500	3,9
125	PPA-125-039-100-A	1000	3,9
125	PPA-125-039-150-A	1500	3,9
125	PPA-125-039-200-A	2000	3,9
125	PPA-125-039-300-A	3000	3,9
160	PPA-160-049-015-D	150	4,9
160	PPA-160-049-025-D	250	4,9
160	PPA-160-049-050-A	500	4,9
160	PPA-160-049-100-A	1000	4,9
160	PPA-160-049-150-A	1500	4,9
160	PPA-160-049-200-A	2000	4,9
160	PPA-160-049-300-A	3000	4,9

Pipes

Pipe plain-end

PP-MD



d_n	Code	L	e
200	PPA-200-062-300-A	3000	6,2



Fittings

Double socket
with center stop

PP-MD



DN ₁	Code	L
40	VMD-040-000-00D	95
50	VMD-050-000-00D	100
75	VMD-075-000-00D	104
90	VMD-090-000-00D	111
110	VMD-110-000-00D	116
125	VMD-125-000-00D	120
160	VMD-160-000-00D	140
200	VMD-200-000-00D	217



Used for connecting pipe without socket.

Sleeve socket
without center stop

PP-MD



DN ₁	Code	L
40	VMP-040-000-00D	95
50	VMP-050-000-00D	97
75	VMP-075-000-00D	104
90	VMP-090-000-00D	111
110	VMP-110-000-00D	116
125	VMP-125-000-00D	120
160	VMP-160-000-00D	140
200	VMP-200-000-00D	217

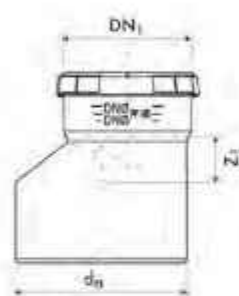


Used for adding fittings to an existing pipe system, floor crossings or repairs.

Fittings

Reducer eccentric

PP-MD



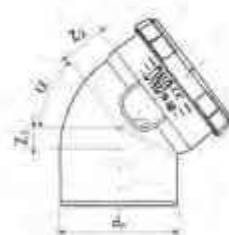
d_2/DN_1	Code	Z_1
50/40	VRD-050-040-000	25
75/40	VRD-075-040-000	25
75/50	VRD-075-050-000	25
90/40	VRD-090-040-000	40
90/50	VRD-090-050-000	35
90/75	VRD-090-075-000	24
110/50	VRD-110-050-000	25
110/75	VRD-110-075-000	25
110/90	VRD-110-090-000	30
125/110	VRD-125-110-000	30
160/110	VRD-160-110-000	35
160/125	VRD-160-125-000	35
200/160	VRD-200-160-000	34

Fittings

Elbow

15° / 30° / 45° / 67° / 87,5°

PP-MD



α°	d_n	Code	Z_1	Z_2
15	40	VKL-040-000-15D	4	12
15	50	VKL-050-000-15D	4	13
15	75	VKL-075-000-15D	12	16
15	90	VKL-090-000-15D	15	15
15	110	VKL-110-000-15D	14	18
30	40	VKL-040-000-30D	7	10
30	50	VKL-050-000-30D	8	12
30	75	VKL-075-000-30D	14	15
30	90	VKL-090-000-30D	20	19
30	110	VKL-110-000-30D	20	22
45	40	VKL-040-000-45D	12	18
45	50	VKL-050-000-45D	12	20
45	75	VKL-075-000-45D	20	28
45	90	VKL-090-000-45D	26	32
45	110	VKL-110-000-45D	25	35
45	125	VKL-125-000-45D	35	45
45	160	VKL-160-000-45D	38	60
45	200	VKL-200-000-45D	46	64
67	40	VKL-040-000-67D	16	20
67	50	VKL-050-000-67D	26	23
67	75	VKL-075-000-67D	30	31
67	90	VKL-090-000-67D	39	40
67	110	VKL-110-000-67D	45	44
87,5	40	VKL-040-000-90D	29	30
87,5	50	VKL-050-000-90D	33	35
87,5	75	VKL-075-000-90D	41	49
87,5	90	VKL-090-000-90D	54	59
87,5	110	VKL-110-000-90D	61	75
87,5	125	VKL-125-000-90D	75	78
87,5	160	VKL-160-000-90D	99	98
87,5	200	VKL-200-000-90D	105	122

Fittings

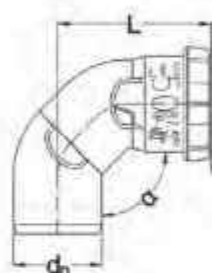
Swept bend
87,5°

PP-MD



α°	d_n	Code		L
87,5	50	VKL-050-LRB-90D	1)	116
87,5	75	VKL-075-LRB-90D	1)	130
87,5	90	VKL-090-LRB-90D	1)	146
87,5	110	VKL-110-LRB-90D	1)	161

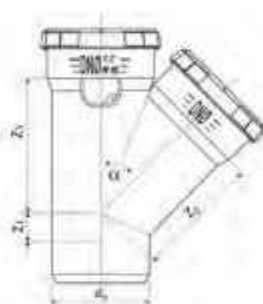
1) fabricated



Fittings

Branch
45° / 67° / 87,5°

PP-MD



α°	d/DN ₁	Code	Z ₁	Z ₂	Z ₃
45	40/40	VTR-040-040-45D	15	54	54
45	50/40	VTR-050-040-45D	13	61	58
45	50/50	VTR-050-050-45D	17	67	67
45	75/40	VTR-075-040-45D	3	78	71
45	75/50	VTR-075-050-45D	1	83	81
45	75/75	VTR-075-075-45D	23	96	97
45	90/40	VTR-090-040-45D	12	88	83
45	90/50	VTR-090-050-45D	2	94	89
45	90/75	VTR-090-075-45D	18	106	106
45	90/90	VTR-090-090-45D	24	116	116
45	110/40	VTR-110-040-45D	19	100	90
45	110/50	VTR-110-050-45D	13	108	100
45	110/75	VTR-110-075-45D	4	120	118
45	110/90	VTR-110-090-45D	12	129	128
45	110/110	VTR-110-110-45D	29	140	140
45	125/110	VTR-125-110-45AD	23	162	162
45	125/125	VTR-125-125-45D	30	162	162
45	160/110	VTR-160-110-45D	5	184	190
45	160/160	VTR-160-160-45D	45	208	208
45	200/200	VTR-200-200-45D	46	244	244
67	40/40	VTR-040-040-67D	15	38	38
67	50/40	VTR-050-040-67D	13	44	41
67	50/50	VTR-050-050-67D	17	45	45
67	75/40	VTR-075-040-67D	8	58	48
67	75/50	VTR-075-050-67D	38	60	53
67	75/75	VTR-075-075-67D	38	65	65
67	90/40	VTR-090-040-67D	7	65	53
67	90/50	VTR-090-050-67D	10	68	59
67	90/90	VTR-090-090-67D	37	78	78
67	110/50	VTR-110-050-67D	12	77	63
67	110/75	VTR-110-075-67AD	20	87	80
67	110/110	VTR-110-110-67D	45	94	94
87,5	40/40	VTR-040-040-90D	30	29	29
87,5	50/40	VTR-050-040-90D	29	34	29
87,5	50/50	VTR-050-050-90D	33	34	35
87,5	75/40	VTR-075-040-90D	26	47	32
87,5	75/50	VTR-075-050-90D	32	47	36
87,5	75/75	VTR-075-075-90D	47	50	50
87,5	90/50	VTR-090-050-90D	40	58	53
87,5	90/75	VTR-090-075-90AD	27	55	40
87,5	90/90	VTR-090-090-90D	53	58	58
87,5	110/40	VTR-110-040-90D	27	63	38
87,5	110/50	VTR-110-050-90D	31	65	42
87,5	110/75	VTR-110-075-90D	44	66	55
87,5	110/90	VTR-110-090-90D	50	69	63
87,5	110/110	VTR-110-110-90D	62	70	70
87,5	125/110	VTR-125-110-90AD	60	80	75
87,5	125/125	VTR-125-125-90D	74	80	80
87,5	160/110	VTR-160-110-90AD	55	100	85
87,5	160/160	VTR-160-160-90D	108	101	101
87,5	200/200	VTR-200-200-90D	107	116	116

*) assembled

Fittings

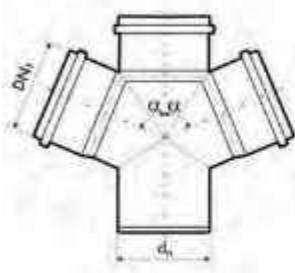
Double branch
 $45^\circ / 67^\circ / 87,5^\circ$

PP-MD



α°	d_p/DN_1	Code	
45	110/50	VCR-110-050-045	
45	110/110	VCR-110-110-045	
67	90/90	VCRZ-090-090-067	"
67	110/50	VCRZ-110-050-067	"
67	110/110	VCRZ-110-110-067	"
87,5	110/110	VCRZ-110-110-090	"

" fabricated



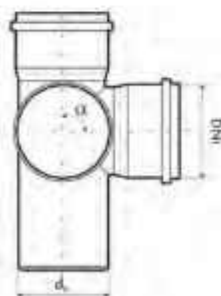
Double corner branch
 $67^\circ / 87,5^\circ$

PP-MD



α°	d_p/DN_1	Code	
67	110/110	VCNZ-110-110-067	"
87,5	110/110	VCNZ-110-110-090	"

" fabricated



Fittings

Clean out branch
90°

PP-MD



d_s	Code	Z_1
50	VCZ-050-000-00D	69
75	VCZ-075-000-00D	90
90	VCZ-090-000-00D	109
110	VCZ-110-000-00D	131
125	VCZ-125-000-00D	154
160	VCZ-160-000-00D	209
200	VCZ-200-000-00AD ¹⁾	223

¹⁾ assembled

Stack-aerator



d_s	Code	L	l_1	l_2	l_3	l_4	l_5	l_6	l_7	l_8	l_9	l_{10}
110	VVEN-110-110-75D	956	256	170	240	60	344	159	318	55	130	159
160	VVEN-160-110-75D	1010	265	170	250	60	404	179	358	80	140	184

The dB^{lue} stack-aerator is available with 6 possible horizontal branch connections that are closed with a cap. The sockets required for the horizontal connections need to be butt-welded on the stack-aerator. Specify configuration when ordering.

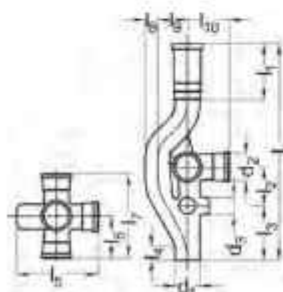
3 x d_2 : 110 mm
3 x d_3 : 75 mm

Opposite connections are not permitted.

Always use plug-in sockets for the horizontal connections and expansion sockets for the vertical connection on top.

d_1 75 mm - Art.Nr. VVEN-KIE-075-00D - dB^{lue} plug-in socket (75 mm)
 d_1 110 mm - Art.Nr. VVEN-KIE-110-00D - dB^{lue} plug-in socket (110 mm)
 d_1 110 mm - Art.Nr. VVEN-WLO-110-00D - dB^{lue} expansion socket (110 mm)
 d_1 160 mm - Art.Nr. VVEN-WLO-160-00D - dB^{lue} expansion socket (160 mm)

Inspection openings should be installed according to local regulation. We advise one on every level.



Fittings

Vent cowl

PP-MD



d_n	Code	d_1	L
50	WYW-050-000-000T	124	108
75	WYW-075-000-000T	124	108
110	WYW-110-000-000T	166	121
160	WYW-160-000-000T	223	151



Fittings

Socket plug

PP-MD

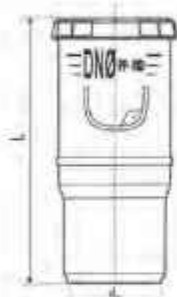


d_e	Code	L
40	VKK-040-000-000	32
50	VKK-050-000-000	32
75	VKK-075-000-000	33
90	VKK-090-000-000	36
110	VKK-110-000-000	37
125	VKK-125-000-000	38
160	VKK-160-000-000	40
200	VKK-200-000-000	90

Fittings

Expansion socket

PP-MD



d _s	Code	L
75	VDK-075-000-000	179
90	VDK-090-000-000	193
110	VDK-110-000-000	201

Traps

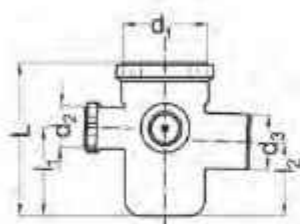
Floor waste gully

PP-MD



$d_1/d_2/d_3$	Code	L	I_1	I_2
110/50/75	VWP-110-050-75D	215	123	101

3 x 50 mm side inlets (factory closed)
1 x 110 mm top inlet
1 x 75 mm side outlet



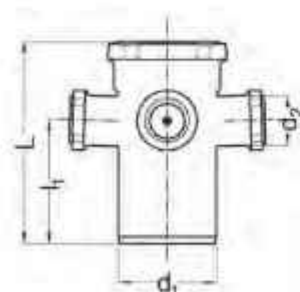
Four way riser

PP-MD



d_1/d_2	Code	L	L_1
110/50	VKO-110-050-00D	239	147

4 x 50 mm side inlets (factory closed)
1 x 110 mm top inlet
1 x 110 mm bottom outlet



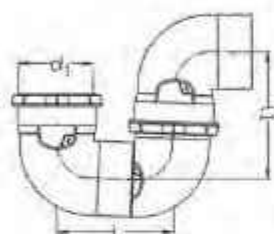
Traps

Adjustable disconnecter trap

PP-MD



d_1	Code		L	l_1
50	VSF-050-000-00D	¹⁾	100	123
75	VSF-075-000-00D	¹⁾	133	155
90	VSF-090-000-00D	¹⁾	160	176
110	VSF-110-000-00D	¹⁾	180	199

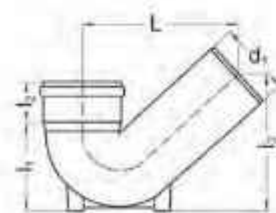
¹⁾ fabricated

P-trap

PP

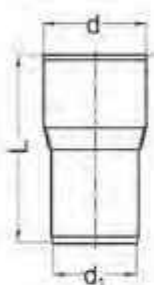


d_1	Code	L	l_1	l_2	l_3
110	VSFP-110-000-00D	235	134	61	206



Transition fittings

Cast iron transition



d ₁ /d	Code	L
50/58	TRA-050-000-000	120
75/78	TRA-075-000-000	125
110/110	TRA-110-000-000	140

PVC to dBblue transition



d ₁ /d	Code
36/40	TRA-PVC-036-040
43/50	TRA-PVC-043-050
56/75	TRA-PVC-056-075

Other materials to dBblue transition

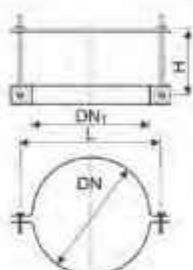


d ₁ /d	Code
42/50	TRA-050-050-000
75/90	TRA-090-090-000
105/120	TRA-110-110-000

Rubber transitions are suitable to connect different diameter piping systems to dBblue pipes. dBblue transitions have a maximum testing pressure of 0,6 bar.

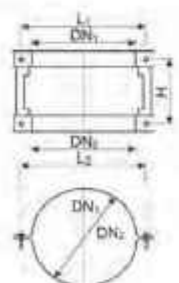
Fixing material

Socket securing clip



DN	Code	L	H
40	VCLP-KIE-STL-040	68	23
50	VCLP-KIE-STL-050	75	23
75	VCLP-KIE-STL-075	110	23
90	VCLP-KIE-STL-090	127	23
110	VCLP-KIE-STL-110	150	40
125	VCLP-KIE-STL-125	150	40
160	VCLP-KIE-STL-160	190	50
200	VCLP-KIE-STL-200	245	60

Socket retainer for testing



DN/DN ₂	Code	DN ₂	H	L ₁	L ₂
110/110	VDSC-KIE-STL-110	116	67	142	150
160/160	VDSC-KIE-STL-160	170	77	190	190

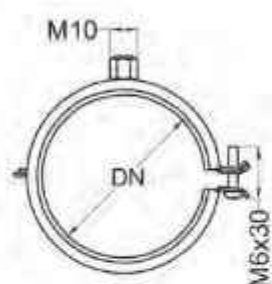
Fixing material

Bracket with rubber lining (metal)

Metal with rubber inlay



DN	Code
40	POB-STL-040-000
50	POB-STL-050-000
75	POB-STL-075-000
90	POB-STL-090-000
110	POB-STL-110-000
125	POB-STL-125-000
160	POB-STL-160-000
200	POB-STL-200-000



*dB*Blue uses a single bracket type. The bracket is used as a guide bracket when installed with the 2 supplied spacers and as an anchor point bracket without spacers.

Tools & accessories

dBlue lubrication



Code	
250 ml	PAS-250-000-000

Pipe cutters



d	Code
40 - 75	NAR-OBC-040-075
50 - 125	NAR-OBC-050-125
90 - 160	NAR-OBC-090-160

Chamfer tool



d	Code
40 - 160	NAR-FAZ-040-160

Tools & accessories

Deburr tool



d	Code
40 - 200	NAR-OKR-040-200

Hole saw for floor gully and four way riser



d	Code
45 mm	NAR-KOR-045-200

Rubber ring

SBR



d	Code
40	USZ-KAN-040-BL
50	USZ-KAN-050-BL
75	USZ-KAN-075-BL
90	USZ-KAN-090-BL
110	USZ-KAN-110-BL
125	USZ-KAN-125-BL
160	USZ-KAN-160-BL
200	USZ-KAN-200-BL



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Distributor Perpipaan di Indonesia



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