



Engineering progress
Enhancing lives

RAUPIANO plumbing system

Quiet. Robust. Easy.





Unique Multi-layer Polypropylene (PP) System With Patented Sound Insulation Technology For Drainage Application to EN 1451-1, ISO 7671, AS/NZS 7671



Live better with REHAU quality and innovation

REHAU was founded in Germany in 1948. Today, our proficiency in developing innovative solutions has made us a global leader in polymer processing technologies, providing a wide range of products and services to the Construction, Automotive and Industrial sectors. Through continuing research and development, REHAU consistently delivers cost-effective products designed with the environment in mind.

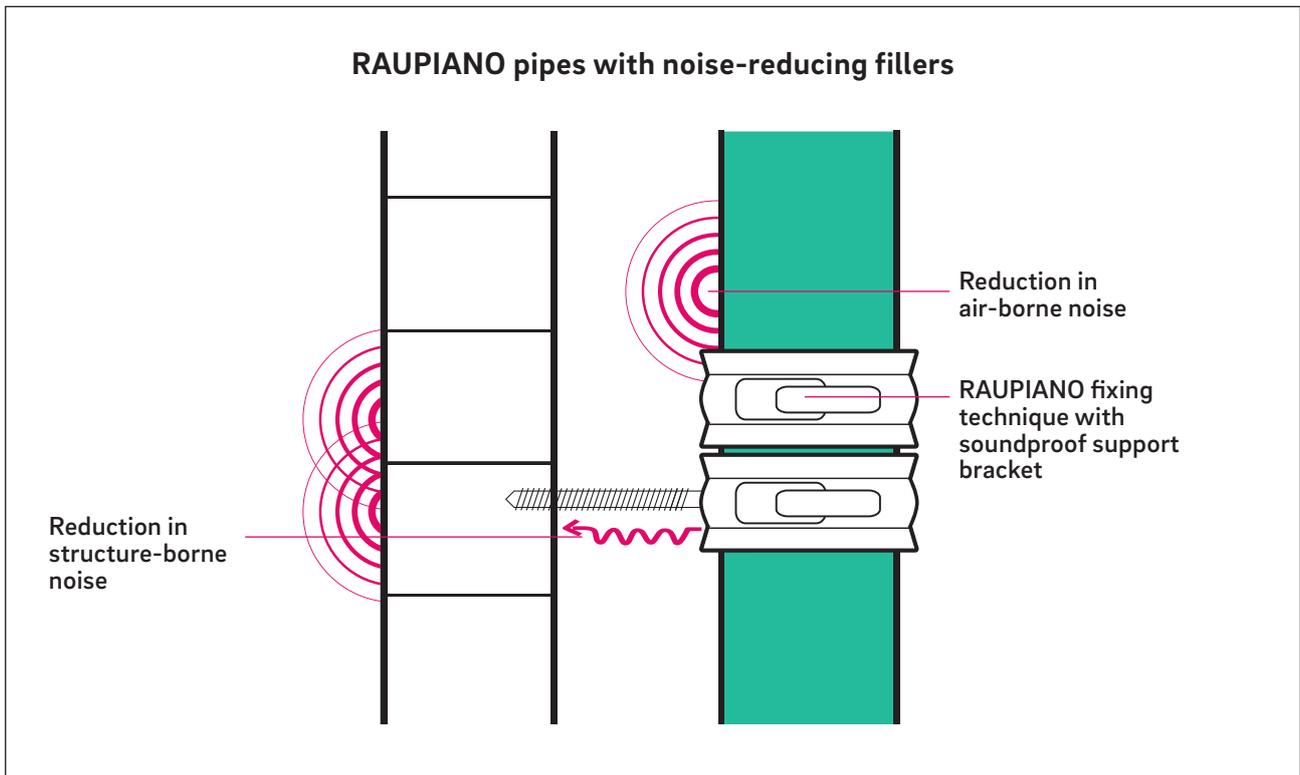
Stringent quality control and safety guidelines ensure that our products comply with the highest international standards. We take pride in our expertise and versatility to remain at the forefront of technology.

As an independent and privately owned company, REHAU focuses on building long-lasting partnerships and alliances with our customers.

QUIET

The best in sound insulation technology

Patented sound insulation technology that fulfills the highest requirements



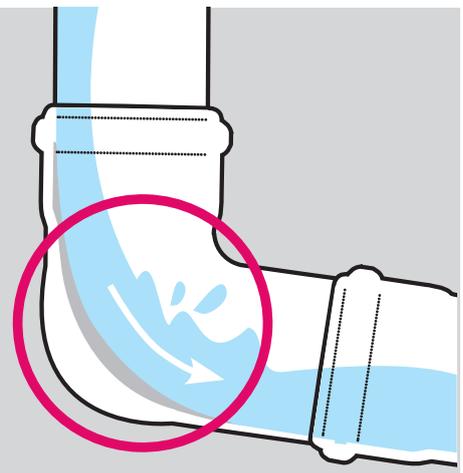
RAUPIANO tackles noise from all aspects; it reduces noise by cutting down the air-borne and structure-borne noise transmissions.

The patented sound-dampening bracket reduces the structure-borne noise transmission by decoupling the vibrations within the drainage line to the wall. The quick and simple snap-on installation ensures repeat performance of the sound-dampening effect by centralising the pipe, and applying the exact fastening force.

RAUPIANO pipes and fittings improve sound insulation performance through the innovative three-layer pipe and bend fittings with optimized mass concentration to further reduce air-borne noise transmission.

By combining these sound insulation technologies into one system, RAUPIANO is able to fulfil the highest requirements, making it the ideal solution for all types of buildings.

Specially designed bends with increased wall thickness reduce air-transmitted sound even further.



Proven by the officially accredited German institute "Fraunhofer-Institut für Bauphysik, Stuttgart", RAUPIANO fulfils the requirements of DIN 4109 (sound insulation in buildings) and the far more stringent requirements of VDI guideline 4100 with excellent results.

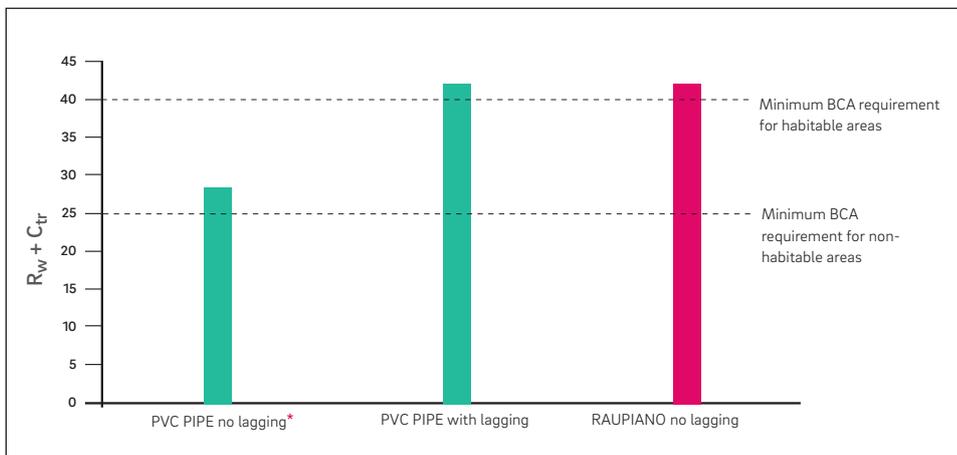


No acoustic lagging required

Vertical living has challenged the industry to develop innovative solutions to overcome potential problems caused by dense living space.

The National Construction Code (NCC) in Australia specifies a minimum acoustic requirement (R_w + C_{tr} 40) for living areas in apartments/town-houses. RAUPIANO exceeds this requirement without acoustic-lagging, using common suspended ceiling (13mm standard-core plasterboard with 75mm glasswool insulation batt).

RAUPIANO is the ultimate acoustic drainage piping system, endorsed by local acoustic consultants.



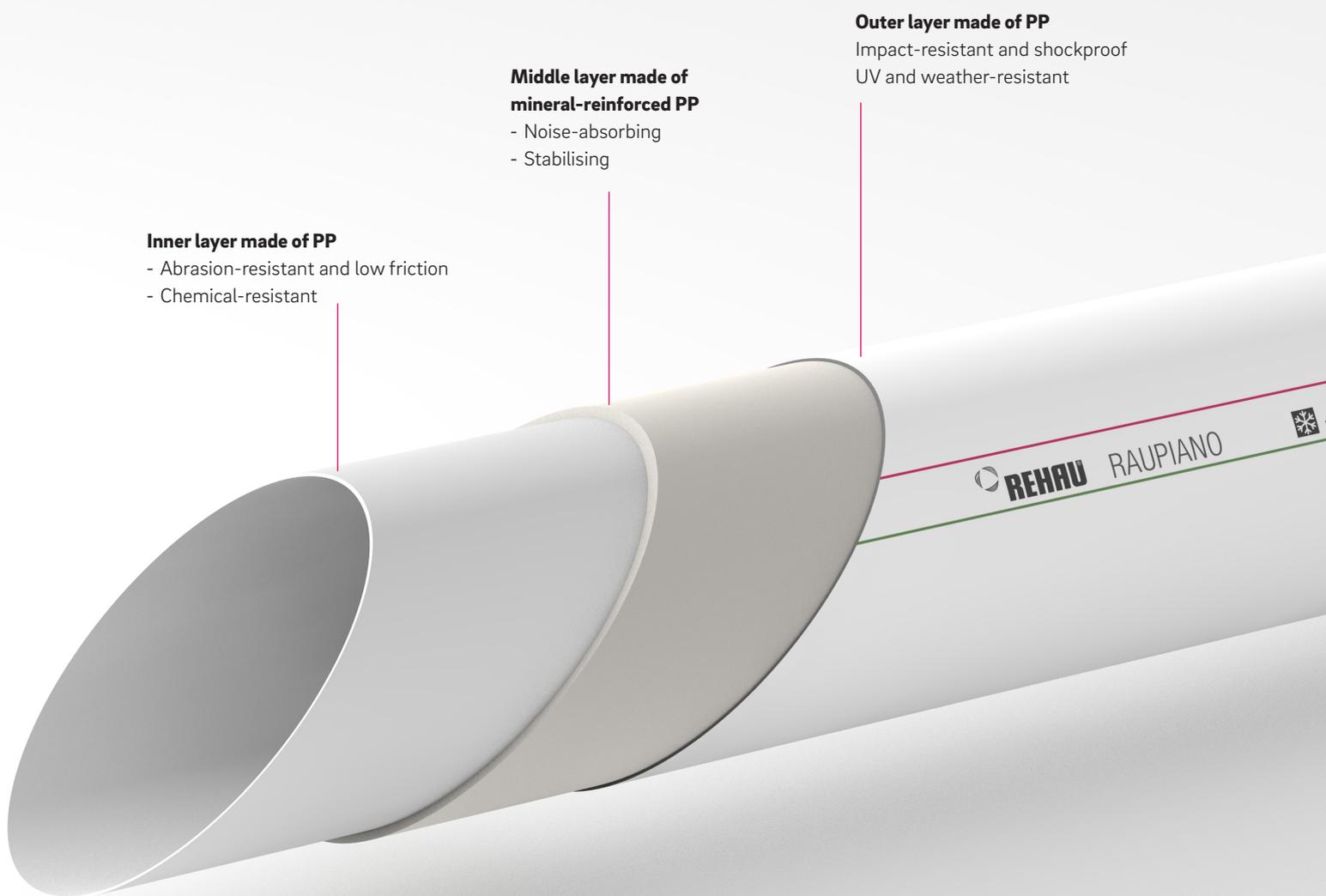
RAUPIANO's acoustic performance has been tested and proven in National Acoustic Laboratory (NAL) and deemed to be equivalent to acoustically-lagged PVC system.

* Industry standard as recommended by Graeme E Harding & Associates
Refer to REHAU RAUPIANO Technical Information for testing and material details

ROBUST

Before, during and after installation

Three layers in one homogeneous process



Inner layer made of PP

- Abrasion-resistant and low friction
- Chemical-resistant

Middle layer made of mineral-reinforced PP

- Noise-absorbing
- Stabilising

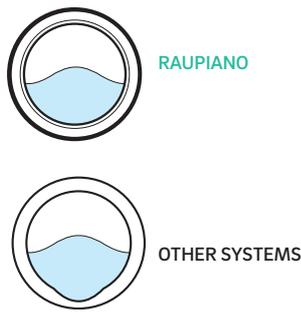
Outer layer made of PP

- Impact-resistant and shockproof
- UV and weather-resistant



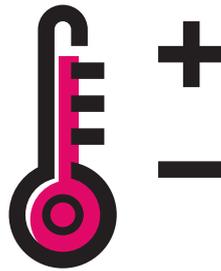
The innovative materials used in the 3 functional layers are integrated in one homogeneous process, ensuring toughness, rigidity. A special coating improves the flow conditions and maintains the high drainage-rate.

Abrasion-resistant



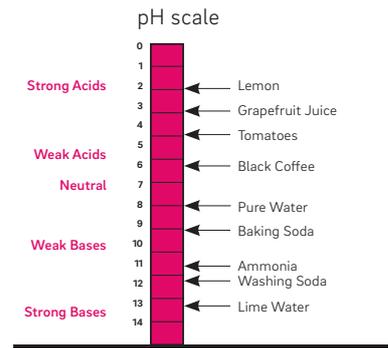
The smooth, abrasion-resistant inner layer ensures the pipes remain free of deposits and scaling. A special coating improves the flow conditions of the pipe systems to maintain the high drainage-rate of the RAUPIANO system.

Heat resistant



RAUPIANO can handle hot water up to temperature of 90°C (or 95°C for short periods), making it an excellent system for domestic and commercial kitchen applications.

Chemical resistant



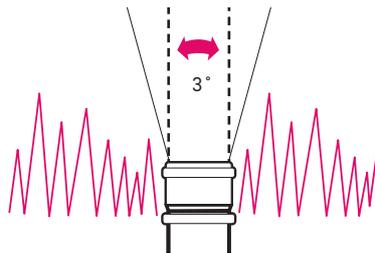
RAUPIANO can be used in harsh environments because it is **highly resistant to various types of chemicals** and wastewater that cause corrosion and wear and tear. It can withstand chemicals ranging from pH2 to pH12.

Leakproof system



The simple push-fit connection, combined with integrated sockets and factory pre-installed sealing rings which reduces workmanship fault of improper connection, ensures a leakage and odour-free environment.

Shock and vibration proof



Rigid structures are prone to break due to vibrations. Additional flexibility is given to the drainage piping system by not gluing or welding the joints. The characteristic feature of RAUPIANO sealing ring provides not only air-tight and leak-proof connection but also a shock and vibration resistant joint. This can help to maintain pipe integrity in the event of an earthquake.

4X
lighter than
cast iron



Green, non-toxic and odourless

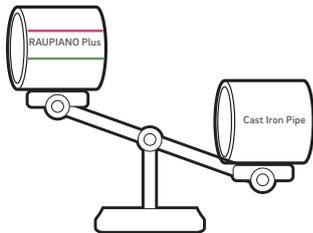
RAUPIANO system leaves small carbon footprint as it takes less energy to fabricate from raw material to final product. Polypropylene (PP) material used to make RAUPIANO is 100% recyclable and contains no toxic material. It stands for efficiency, innovation, protection of the environment and sets the future of forward-looking trends in construction.



EASY

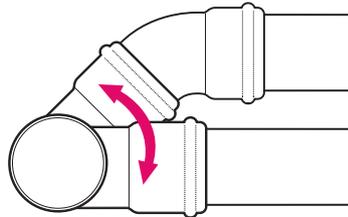
Save time. Save cost.

Light and convenient



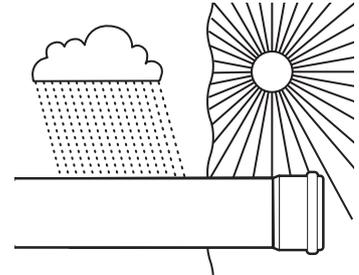
RAUPIANO is **4 times lighter** than conventional cast iron pipes, **saving up to 20%** in transportation costs. The lightweight materials also dramatically improve safety in transportation and installation.

Adjustable joint



The unglued connection allows the installed fitting to rotate, giving freedom to adjust it to the required angle for gradient and alignment.

Toughness inside and out

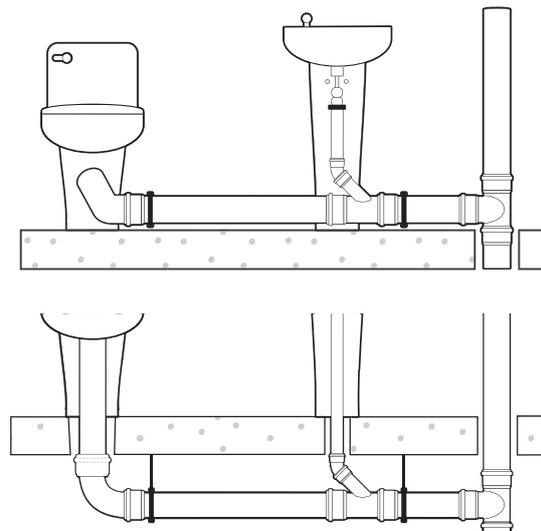


Characterised by its high-impact toughness, **shock resistance and durability against inclement weather, the UV-stabilised outer layer** makes outdoor storage possible for up to 2 years.

Installation freedom

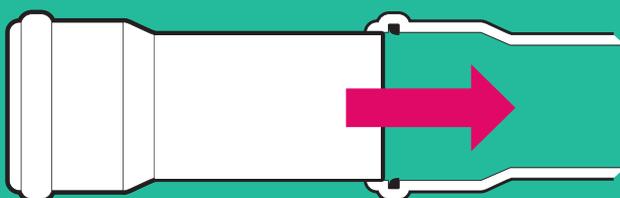
The secured push-fit socket connection gives freedom to design any type of drainage system and is **an ideal solution for wall-drainage system where leak-proof and maintenance-free joints are critical.**

This design flexibility allows for fewer structural limitations and widens installation possibilities.



RAUPIANO is suitable for either wall or floor drainage systems.

30%
faster
installation



Quick and easy installation

RAUPIANO system uses push-fit connection with integrated sockets and specially designed sealing rings, ensuring watertight system. The simple and easy-to-use push-fit design ensures error-free connection and reduces installation time by up to 50%. **

** German Research Guild SSH Munchen 2005 compared to cast-iron pipes

RAUPIANO

Engineered for your convenience

Patented
mounting
technology



RAUPIANO push-fit lock

In case a higher pressure resistant is needed for RAUPIANO system such as connection to pump station, the RAUPIANO Push-fit Lock is a perfect solution to increase the socket joint integrity to resist up to a maximum pressure of 2 bar.

The Push-fit Lock is designed also to allow the secured joint to continue absorb linear thermal expansion on the pipe. It can be used as an alternative solution to secure the socket plug from using a securing clip.

Quick installation is allowed, thanks to the unique auto-locking mechanism that makes the assembly easier during installation as it prevents the parts fall apart before tightening the screws.

Fire protection

RAUPIANO also offers a complete solution for fire protection. When it comes to safety, REHAU will not compromise.

Refer to RAUPIANO technical information and contact your local REHAU sales office for more information on RAUPIANO fire protection solution.



Patented sound-dampening bracket isolates structure-borne noise

The sound-dampening bracket consists of a rubber-lined guiding and fixing clamp, which work together effectively in decoupling vibrations from the drainage stack to the fixing wall. This significantly minimises structure-borne sound transmission to the installation wall.

Technical Specification

Dimension

Normal Size	40	50	75	90	110	125	160	200
Outer Diameter, mm	40	50	75	90	110	125	160	200
Inner Diameter, mm	36.4	46.4	71.2	85.6	104.6	118.8	152.2	187.6
Wall Thickness, mm	1.8	1.8	1.9	2.2	2.7	3.1	3.9	6.2

Specification

Material:	Pipes and fittings: PP-MD mineral reinforced Sealing rings: EPDM	
Area of application	Waste water pipes in buildings and laid underground inside and outside the building structure.	
Chemical resistance:	Basis: PP according to DIN 8078 No sewage containing petrol or benzene Sealing rings made of EPDM	DIN 8078 DIN 4060, DIN EN 681-1
Range of application:	Sewage with pH-values 2 - 12 Sewage temperature up to 95°C (short-term) and 90°C (long-term) respectively Installation within the building structure Installation in underground at area subjected to no heavy load	DIN EN 12056 DIN 1986-100
Density:	Pipes: 1,9 g/ cm ³ Fittings: 1,1 to 1,9 g/ cm ³	
Linear expansion:	0,09 mm/ mK	DIN 53752
Ring stiffness:	> 4 KN/ m ²	DIN EN ISO 9969
Tensile strength:	> 16 N/ mm ²	DIN EN ISO 527-3
Elongation at break:	approx. 150 %	DIN EN ISO 527-3
E-Modulus:	approx. 2700 N/ mm ²	DIN EN ISO 527-2
Pressure resistance:	1 bar (5m water column)	
Connections:	Push-fit socket with factory pre-installed rubber sealing ring	
Fire resistancy:	Class E - normally flammable	BS EN 13501
Standards:	System tested on the basis of DIN EN 1451-1 Additional testing according to the requirements of the Deutsches Institut für Bautechnik (DIBt; Center of Competence in Civil Engineering), Berlin, Germany	
Sound insulation:	Tested according to DIN EN 14366 - Test report of the Fraunhofer Institute for Building Physics (IBP), Stuttgart, Germany P-BA 6/ 2006: max 17db(A) at 4L/sec with REHAU sound-proof bracket P-BA 176/ 2006: max 24 dB(A) at 4L/sec with standard bracket	
Thermal load:	The thermal load of RAUPIANO has been examined by MPA (Material Testing Institute): 14,992 KJ/kg.	

Standards and Certification

DIN 1054

Ground – Verification of the safety of earthworks and foundations

DIN 1055 Part 2

Design loads for buildings; soil characteristics; specific weight, angle of friction, cohesion, angle of wall friction

DIN 1986

Drainage systems on private ground

DIN 4060

Pipe joint assemblies with elastomer seals for use in drains and sewers, requirements and tests

BS EN 13501

Fire classification of construction products and building elements

DIN 4109

Sound insulation in buildings

DIN 4124

Excavations and trenches – Slopes, planking and strutting, breadths of working spaces

DIN EN 476

General requirements for components used in discharge pipes, drains and sewers for gravity systems

DIN EN 681

Elastomeric seals
Material requirements for pipe joint seals used in water and drainage applications

DIN EN 752

Drain and sewer systems outside buildings

DIN EN 1451

Plastic piping systems for soil and waste drainage (low and high temperature) inside buildings - Polypropylene (PP)

DIN EN 1610

Construction and testing of drains and sewers

DIN EN 12056

Gravity drainage systems inside buildings

VDI Guideline 4100

Sound insulation in residential buildings - Criteria for planning and assessment

ISO 7671

Plastic piping systems for soil and waste discharge (low and high temperature) inside buildings – Polypropylene (PP)

AS/NZS 7671

Plastic piping systems for soil and waste drainage (low and high temperature) inside buildings - Polypropylene (PP)

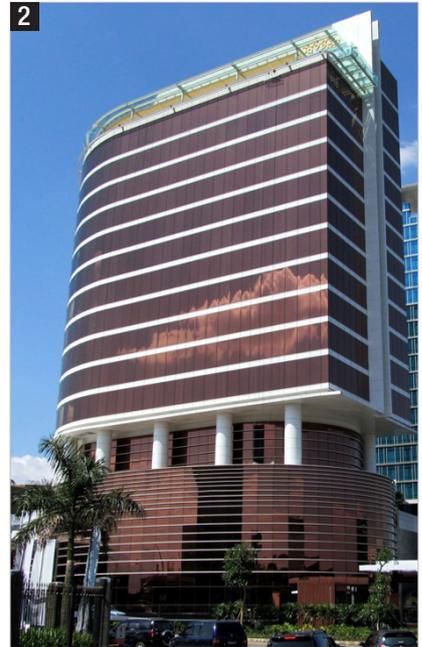
Quality and certification

RAUPIANO meets international quality and regulatory standards, and is accredited by both international and national regulation bodies:

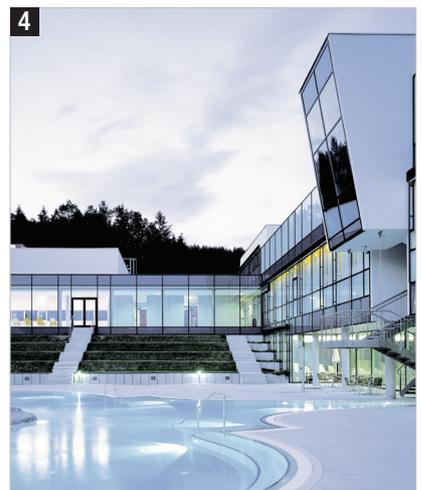
 <p>GERMANY</p>	 <p>POLAND</p>	 <p>MALAYSIA</p>	 <p>SWEDEN</p>
 <p>DENMARK</p>	 <p>AUSTRIA</p>	 <p>HUNGARY</p>	 <p>NORWAY</p>
 <p>FINLAND</p>	 <p>RUSSIA</p>	 <p>AUSTRALIA & NEW ZEALAND</p>	

RAUPIANO

Project References



- 1 Queensland Children's Hospital
Australia
- 2 Trans Luxury and Ibis Hotels
Indonesia
- 3 Bulow Carre
Germany
- 4 Nova Koflach Therme and Hotel
Austria
- 5 Primoretz Grand Hotel and Spa
Bulgaria
- 6 Olympic Village
Italy





- 7 **Cape Royale**
Singapore
- 8 **Park Inn Imeretinskaya Hotel**
Russia
- 9 **Storan Theater**
Spain
- 10 **Clarion Hotel Post**
Sweden
- 11 **Indigo Hotel**
Thailand
- 12 **Elite City-Sua Insatt**
Turkey

RAUPIANO Product Range

RAUPIANO pipes

Description	Art. - No.	DN/length in mm
Pipe 	123004-005	40/150
	123014-006	40/250
	123024-004	40/500
	123054-400	40/3000
	120094-005	50/150
	120104-005	50/250
	120114-005	50/500
	120124-006	50/750
	120134-610	50/1000
	120934-610	50/3000
	120174-005	75/150
	120184-005	75/250
	120194-004	75/500
	120204-006	75/750
	120214-610	75/1000
	120944-610	75/3000
	123984-002	90/150
	123184-005	90/250
	123194-004	90/500
	123204-200	90/1000
	123224-610	90/3000
	120254-003	110/150
	120264-003	110/250
	120274-006	110/500
	120284-006	110/750
	120294-610	110/1000
	120324-610	110/3000
	120654-003	125/150
	120664-001	125/250
	120674-005	125/500
	120694-200	125/1000
	120724-200	125/3000
	122954-004	160/500
	121664-400	160/1000
	121684-400	160/3000
	123015-400	200/1000
	123035-400	200/3000

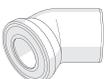
RAUPIANO components

Description	Art. - No.	DN/length in mm	
Bend 	123064-001	40/15°	
	123074-001	40/30°	
	123084-002	40/45°	
	123094-001	40/87°	
	121094-002	50/15°	
	121104-002	50/30°	
	121114-001	50/45°	
	121124-002	50/67°	
	121134-001	50/87°	
	121144-001	75/15°	
	121154-001	75/30°	
	121164-002	75/45°	
	121174-001	75/67°	
	121184-002	75/87°	
	123384-001	90/15°	
	123394-001	90/30°	
	123404-001	90/45°	
	123414-001	90/87°	
	123424-001	110/15°	
	123434-001	110/30°	
	123444-001	110/45°	
	123454-001	110/67°	
	123464-001	110/87°	
	123474-001	125/15°	
	123484-001	125/30°	
	123494-001	125/45°	
	123504-001	125/67°	
	123514-001	125/87°	
	124028-001	160/45°	
	124029-001	160/87°	
	123097-001	200/45°	
	123089-001	200/87°	
	Single branch 	123104-001	40/40/45°
		123114-001	40/40/87°
		121234-001	50/50/45°
		121254-001	50/50/87°
		121264-001	75/50/45°
		121284-001	75/50/87°
121294-001		75/75/45°	
121544-001		75/75/87°	
123274-001		90/50/45°	
123284-001		90/50/87°	
123834-001		90/75/45°	
123844-001		90/75/87°	
123294-001		90/90/45°	
123304-001		90/90/87°	
121304-001		110/50/45°	
121324-001		110/50/87°	
121334-001		110/75/45°	
121344-001		110/75/87°	
100257-001		110/90/45°	
100258-001		110/90/87°	
122984-001		110/110/45°	
123005-001		110/110/87°	
120574-001	125/110/45°		
120594-001	125/110/87°		
120584-001	125/125/45°		
120604-001	125/125/87°		
124037-001	160/110/45°		

RAUPIANO components

Description	Art. - No.	DN/length in mm
Single branch 	124069-001	160/110/87°
	123107-001	160/125/45°
	123108-001	160/125/87°
	124038-001	160/160/45°
	124077-001	160/160/87°
	123117-001	200/160/45°
	123119-001	200/160/87°
123118-001	200/200/45°	
Double branch 	123714-001	90/90/90/87°
	122964-001	110/110/110/45°
	121554-001	110/110/110/87°
	123594-001	125/110/110/45°
	123076-001	160/110/110/45°
123684-001	160/110/110/87°	
Corner double branch 	121564-003	110/110/110/87°
Shaft branch right 	123045-001	90/75/90/87°
	123761-001	110/75/110/87°
Shaft branch left 	123055-001	90/75/90/87°
123771-001	110/75/110/87°	
Parallel branch 	123734-002	90/90
	120564-003	110/110
Reducer 	123124-001	50/40
	121384-001	75/50
	123314-001	90/50
	123324-001	90/75
	121394-002	110/50
	121404-001	110/75
	121994-001	110/90
	120614-001	125/110
	124039-001	160/110
	123105-001	160/125
123102-001	200/160	
PVC adaptor 	123009-001	40/43
	123012-001	50/56
	123016-001	75/69
	123017-001	90/82
Straight nipple adaptor 	123164-001	40/40-30
	121414-001	50/40-30

RAUPIANO components

Description	Art. - No.	DN/length in mm
Elbow nipple adaptor 	123174-001	40/40-30
	122694-001	50/40-30
	121444-001	50/50
Socket plug 	123134-002	40
	121454-002	50
	121464-002	75
	123334-001	90
	121474-002	110
	120624-001	125
	123106-001	160
	123109-001	200
Double socket 	123144-001	40
	132624-001	50
	121584-002	75
	123344-001	90
	121494-001	110
	120474-001	125
	124047-001	160
123098-001	200	
Slip-on socket 	123154-001	40
	132625-001	50
	121574-001	75
	123354-001	90
	121514-001	110
	120464-001	125
	124048-001	160
123099-001	200	
Access pipe 	121039-001	50
	123079-001	75
	123364-001	90
	121534-003	110
	120634-001	125
	124079-001	160
Long socket 	123374-001	90
	121594-001	110
Closet bend 	121604-001	110/22°
	121614-001	110/45°
	121624-001	110/90°
Closet connection 	122934-001	90/250
	121634-001	110/150
	121644-001	110/250

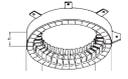
RAUPIANO components

Description	Art. - No.	DN/length in mm
P-trap siphon 	123115-001	50
	123039-001	110
P-trap 	123059-002	110
	(with vent)	
	123069-002	110
(without vent)		
Floor gully 	108489-001	50/50/50/75
Venting connection pipe 	123574-002	75/80
Flexible exhaust connector 	123824-001	75/90/110

RAUPIANO mounting system

Description	Art. - No.	DN/length in mm
Sound-dampening support bracket 	122004-200	75
	122044-200	90
	122014-200	110
	122024-200	125
	122034-200	160
	123924-001	200
Fixing/security clamp 	122644-001	40
	120504-001	50
	120026-002	75
	120047-002	90
	120029-002	110
	120048-002	125
	120049-003	160
	123934-001	200
Guiding clamp 	122654-001	40
	120534-001	50
	120019-001	75
	120055-002	90
	120027-002	110
	120056-002	125
	120057-002	160
123944-001	200	
Headless screw 	121074-002	M8
	121084-002	M10

RAUPIANO fireproofing collar

Description	Art. - No.	DN/length in mm
Fireproof collar REHAU compact 	122104-001	50
	122114-001	75
	122005-001	90
	122124-001	110
	122134-001	125
Fireproof collar REHAU PLUS 	121894-001	40-50
	121904-001	75
	121914-001	90
	121924-001	110
	121934-001	125
	121944-001	160
	121008-001	200
Fireproof collar REHAU angled 	120834-001	75
	120874-001	90
	120844-001	110
	120854-001	125
Accessories		
	Description	Art. - No. DN/length in mm
Rubber sealing ring 	128243-002	40
	128013-002	50
	128023-002	75
	128003-001	90
	128033-002	110
	128043-003	125
128053-003	160	
Rubber nipple 	126253-002	50/40
	121913-003	50/50
Rubber nipple with bead 	122923-003	40/30
	122933-003	50/30
	122943-003	50/40
Rubber venting adaptor 	123067-001	50/56
Rubber sleeve adaptor 	125024-001	50/53-63
	125034-001	75/75-89
	123904-001	110/90
	123914-001	110/110
Securing clip 	123000-001	110
	123002-001	160
	123006-001	200
Lubricant 	128001-001	250 g
	128002-001	500 g
Push-fit lock 	100659-001	40
	100661-001	50
	100662-001	75
	100663-001	90
	100664-001	110
	100665-001	125
	102946-001	160
102947-001	200	

This document is protected by copyright. All rights based on this are reserved.
No part of this publication may be translated, reproduced or transmitted in any form or by any similar means, electronic or mechanical, photocopying, recording or otherwise, or stored in a data retrieval system.

Our verbal and written advice relating to technical applications is based on experience and is to the best of our knowledge correct but is given without obligation.

The use of REHAU products in conditions that are beyond our control or for applications other than those specified releases us from any obligation in regard to claims made in respect of the products.

We recommend that the suitability of any REHAU product for the intended application should be checked. Utilisation and processing of our products are beyond our control and are therefore exclusively your responsibility. In the event that a liability is nevertheless considered, any compensation will be limited to the value of the goods supplied by us and used by you.

Our warranty assumes consistent quality of our products in accordance with our specification and in accordance with our general conditions of sale.

REHAU Branches in Asia Pacific :

SINGAPORE - Regional Office for Asia Pacific

1 King George's Avenue, REHAU Building, Singapore 208557 Tel: +65 6392-6006 Fax: +65 6392-6116

AUSTRALIA National Customer Service Centre Tel: 1300 768 033 **GREATER CHINA** Beijing Tel: +86 10 6428-2956 Chengdu Tel: +86 28 8628-3218 Guangzhou Tel: +86 20 8776-0343 / 3646 Hong Kong Tel: +852 2898-7080 Qingdao Tel: +86 532 8667-8190 Shenyang Tel: +86 24 2287-5807 Shanghai Tel: +86 21 6355-1155 Taicang Tel: +86 512 5337-2888 Taipei Tel: +886 2 8780-3899 Xi'an Tel: +86 29 6859-7000 **INDIA** Bangalore Tel: +91 80 2222-0014 Mumbai Tel: +91 22 6148-5858 New Delhi Tel: +91 11 4848-5600 Pune Tel: + 91 21 3567-4301 / 4340 **INDONESIA** Jakarta Tel: +62 21 4587 1030 **JAPAN** Tokyo Tel: +81-3-3292-8337 **NEW ZEALAND** Auckland Tel: +64 9 2722-264 **PHILIPPINES** Manila Tel: +63 2 654-5120 **THAILAND** Bangkok Tel: +66 2763-5100 **VIETNAM** Ho Chi Minh City Tel: +84 8 3823-3030 **MALAYSIA** Tel: +603 7732 6406 / +603 7732 2406
www.rehau.com

© REHAU
Errors and changes are to be
expected

SEA001 BT 05.2023