



Engineering progress  
Enhancing lives

## RAUTITAN PEX plumbing system

Secure. Easier. Faster.





Flexible Cross-Linked Polyethylene (PEX) system with unique REHAU compression sleeve jointing technology for hot and cold water applications.



# 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.

# SECURE

## Simple. Robust. Reliable

### Simply the most reliable joint

#### RAUTITAN Pipes

RAUTITAN pipes are made from high density cross-linked polyethylene (PE-Xa). The cross linking process causes the individual polyethylene molecules to bond in a three-dimensional network creating a tough and durable pipe with superior:

- long-term stability
- high temperature resistance and
- high pressure resistance
- superior flexibility and strength.

The external platinum PE-sheath blocks more than 99.9% of light transmission through the pipes to prevent the growth of algae within the plumbing system to maintain the system's hygiene.

The RAUTITAN system includes a single PN20 pipe system for both hot and cold water, which has been exposed in long-term tests at extreme temperature and pressure conditions to confirm its lifespan of over 50 years even for hot water application.

**100%**  
leak-proof  
joint



#### PRESSURE TEST UP TO 150 PSI

The RAUTITAN compression sleeve joint is a simple, robust and reliable connection.

# EASIER

Engineered for  
your convenience

Sealed  
without  
O-ring





## Advanced light weight material and innovative jointing technology ensure that RAUTITAN is the most convenient and robust plumbing system available.

### MAXIMUM FLEXIBILITY, ULTIMATE DESIGN FREEDOM

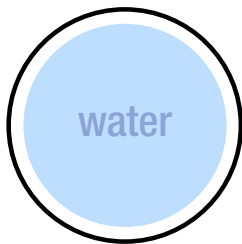
Even in the most confined space, the superior flexibility of the RAUTITAN PE-Xa pipes give you the freedom to bend around corners and around existing services to complete the installation. In addition the simple mechanical joint can be confidently made in very restricted spaces making it the ideal system for renovation or water service extensions.

### HIGHER KINK RESISTANCE

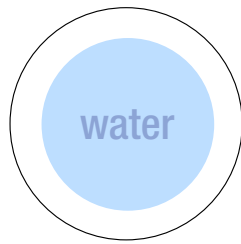
No need for bender tools or additional tools.



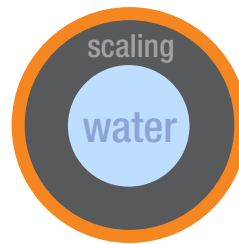
### Inner diameter



**PEX  
PN20**



**PP-R  
PN20**



**Metal  
with scaling**



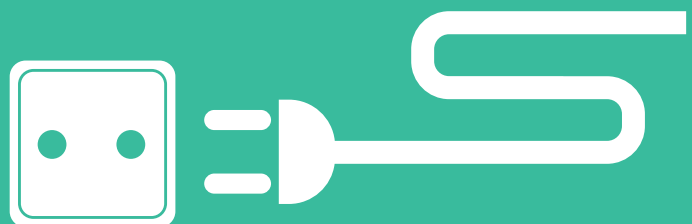
### LONG-TERM PEACE OF MIND

Combined with advanced PVDF/PPSU polymer fittings and Dezincification Resistant Brass threaded fittings RAUTITAN PE-Xa pipes are significantly more resistant to scaling, corrosion and/or erosion than traditional systems such as copper.

Due to the corrosion and scaling resistant properties, the RAUTITAN system provides the highest standards of hygiene and hydraulic performance, today and in the future!

### NO POWER, NO HEAT, NO WORRIES

RAUTITAN's robust 'cold' compression sleeve jointing technology requires **no brazing, no welding, no open flames or hot welding tools** (up to 260°C). Avoid the risk of damage to existing building elements or other services (e.g. electrical) caused by open flames or high temperatures; and of course the risk of injury to your team.



# FASTER

## Save time, save cost



more than  
**30%**  
faster

### MORE TIME, MORE JOBS

With growing advancements in modern construction techniques, projects are moving faster than ever before; and with that growing client expectation. The RAUTITAN system provides:

- Simple, fast and robust jointing technique
- Up to 100m coiled pipe runs. No joint!
- More than 30% less joints per installation
- No waiting for cool down periods before pressurizing the system

### 100% SEAMLESS CONNECTION

Unique PEX/PPR adaptors to avoid using threaded connection between the two systems.



### INSTALL A VALVE WITH NO THREADED CONNECTION

RAUTITAN valves are featured with unique REHAU compression sleeve connection joints that can create a permanent seal to our RAUTITAN PEX pipes.

### RAUTITAN PX FITTINGS

For sizes 16mm to 40mm, non-threaded RAUTITAN fittings, PPSU (polyphenyl sulphone) and compression sleeves, PVDF (polyvinylidene fluoride).

### RAUTITAN MX FITTINGS

For sizes 50mm to 63mm high quality Dezincification resistant brass fittings



**RAUTOOL  
completes  
RAUTITAN**



## TWO EASY STEPS TO SECURITY

Making a 100% leak-proof joint has never been this easy. **Utilized for over 30 years** and across millions of connections REHAU guarantees a **100% permanent leak-proof joint in just two simple steps!**

### 1 Expand the pipe



### 2 Compress and complete!







# Technical Specification

## SPECIFICATION

<b>Material</b>	-	PE-Xa
<b>Colour (surface)</b>	-	Platinum
<b>Notch impact strength at 20°C</b>	-	No fracture
<b>Notch impact strength at -20°C</b>	-	No fracture
<b>Average coefficient of expansion</b>		0.15
<b>When laying with pipe support channel:</b>		
- Size 16 - 40	mm/(mK)]	0.04
- Size 50 - 63		0.1
<b>Thermal conductivity</b>	W/(mK)]	0.35
<b>Pipe roughness</b>	[mm]	0.007
<b>Operating pressure (maximum at 70°C)</b>	[bar]	10
<b>Operating temperature</b>		
- Maximum	[°C]	90
- Minimum		-
<b>Short-term maximum temperature (malfunction)</b>	[°C]	100
<b>Material constant C</b>	-	12
<b>Minimum bending radius without tools</b> <b>d = pipe diameter</b>	-	8 x d
<b>Minimum bending radius with pipe bend brackets</b> <b>d = pipe diameter</b>	-	3 – 4 x d
<b>Available sizes</b>	[mm]	16 – 63

# Standards and Certification

## BS 6920

Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of water

## BS 7291

Thermoplastics pipes and associated fittings for hot and cold water for domestic purposes and heating installations in buildings

## BS EN 1982

Copper and copper alloys. Ingots and castings

## BS EN 12163

Copper and copper alloys. Rod for general purposes

## BS EN 12165

Copper and copper alloys - Wrought and unwrought forging stock

## BS EN 12420

Copper and copper alloys. Forgings

## DIN 1988

Codes of practice for drinking water installations (TRWI)

## DIN 4102

Fire behaviour of building materials and components

## DIN EN 13501

Fire classification of construction products and building elements

## DIN EN 12164

Copper and copper alloys - Rod for free machining purposes

## DIN EN 12168

Copper and copper alloys - Hollow rod for free machining purposes

## DVGW W 291

Cleaning and disinfection of water distribution systems

## DVGW W 534

Pipe connectors and connections in the drinking water installation

## DVGW W 551

Drinking water heating and drinking water pipe systems

## ISO 14001

Environment Management System (EMS) standard

## ISO 7

Pipe threads where pressure-tight joints are not made on the threads

## ISO 9001

Quality Management Systems

## ISO 15875

Plastic piping systems for hot and cold water installations - crosslinked polyethylene (PE-X)

## SS 375

















Suitability of nonmetallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water

## ISO 50001

Energy Management Systems

## QUALITY AND CERTIFICATION

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

   <p>GERMANY</p>	  <p>AUSTRALIA &amp; NEW ZEALAND</p>	 <p>SWITZERLAND</p>	
 <p>HONG KONG</p>	  <p>MALAYSIA</p>	 <p>JAPAN</p>	 <p>TAIWAN</p>
  <p>SINGAPORE</p>	 <p>NETHERLANDS</p>	 <p>UNITED KINGDOM</p>	 <p>AUSTRIA</p>

# RAUTITAN water services

## Project references



- 1 **Federation Square**  
*Australia*
- 2 **Normanton Park**  
*Singapore*
- 3 **Bel-Air 8**  
*Hong Kong*
- 4 **Ramada Resort Aquaworld**  
*Hungary*
- 5 **JW Marriott Hotel**  
*Indonesia*
- 6 **iLIV @ Grange Road**  
*Singapore*







- 7 **The Red Apple Apartment**  
*Netherland*
- 8 **Discovery Primea**  
*Philippines*
- 9 **Moscow Schuel of Management**  
*Russia*
- 10 **Wellness Aquamarine**  
*Slovakia*
- 11 **W Hotel**  
*Singapore*
- 12 **Radisson Blue Hotel**  
*South Africa*



# RAUTITAN Product Range

## RAUTITAN pipes

Description	Art. - No.	DN in mm
<b>Platinum Pipe</b> (Available in coil or straight length)	132300-005	16 x 2.2 x 5M Lg
	132300-100	16 x 2.2 x 100M coil
	132310-005	20 x 2.8 x 5M Lg
	132310-100	20 x 2.8 x 100M coil
	132320-005	25 x 3.5 x 5M Lg
	132320-050	25 x 3.5 x 50M coil
	132330-005	32 x 4.4 x 5M Lg
	132330-050	32 x 4.4 x 50M coil
	132340-005	40 x 5.5 x 5M Lg
	132350-005	50 x 6.9 x 5M Lg
	132360-005	63 x 8.6 x 5M Lg

## RAUTITAN components

Description	Art. - No.	DN in mm
<b>T-piece, Reduced Centre</b> (MX)	160061-001	20 - 16 - 20 PX
	160062-001	25 - 16 - 25 PX
	160063-001	25 - 20 - 25 PX
	160064-001	32 - 16 - 32 PX
	160065-001	32 - 20 - 32 PX
	160066-001	32 - 25 - 32 PX
	160067-001	40 - 20 - 40 PX
	160068-001	40 - 25 - 40 PX
	160069-001	40 - 32 - 40 PX
	230348-401	50 - 20 - 50 MX
	230358-401	50 - 25 - 50 MX
139792-401	50 - 32 - 50 MX	
137089-401	50 - 40 - 50 MX	
230328-401	63 - 20 - 63 MX	
230338-401	63 - 25 - 63 MX	
137175-401	63 - 32 - 63 MX	
137074-401	63 - 40 - 63 MX	
137084-401	63 - 50 - 63 MX	

Description	Art. - No.	DN in mm
<b>T-piece, Reduced End</b> (PX)	160071-001	20 - 20 - 16 PX
	160072-001	25 - 25 - 16 PX
	160073-001	25 - 25 - 20 PX
	160074-001	32 - 32 - 20 PX
	160075-001	32 - 32 - 25 PX

## RAUTITAN components

Description	Art. - No.	DN in mm
<b>T-piece, Wall Mounted</b>	138841-402	16 - Rp 1/2 - 16 MX
	138851-402	20 - Rp 1/2 - 20 MX

Description	Art. - No.	DN in mm
<b>T-piece, Uniform</b> (MX)	160031-001	16 PX
	160032-001	20 PX
	160033-001	25 PX
	160034-001	32 PX
	160035-001	40 PX
	137155-401	50 MX
	137165-401	63 MX

Description	Art. - No.	DN in mm
<b>T-piece, Reduced Centre and End</b> (PX)	160081-001	20 - 16 - 16 PX
	160082-001	25 - 16 - 16 PX
	160085-001	25 - 20 - 20 PX
	160086-001	32 - 20 - 20 PX
	160091-001	32 - 25 - 25 PX
	160092-001	40 - 32 - 32 PX

Description	Art. - No.	DN in mm
<b>T-piece, Unequal Centre and End</b> (MX)	160103-001	20 - 25 - 16 PX
	160083-001	25 - 16 - 20 PX
	160084-001	25 - 20 - 16 PX
	160087-001	32 - 20 - 25 PX
	160089-001	32 - 25 - 20 PX

Description	Art. - No.	DN in mm
<b>T-piece, Unequal Centre</b> (PX)	160101-001	16 - 20 - 16 PX
	160102-001	16 - 25 - 16 PX
	160104-001	20 - 25 - 20 PX
	160106-001	25 - 32 - 25 PX

Description	Art. - No.	DN in mm
<b>Compression Sleeve</b> Required for every compression joint (MX)	160001-001	16 PX
	160002-001	20 PX
	160003-001	25 PX
	160004-001	32 PX
	160005-001	40 PX
	139771-002	50 MX
	139781-002	63 MX

## RAUTITAN components

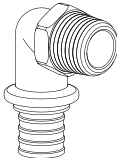
Description	Art. - No.	DN in mm
<b>Straight Coupling</b> (MX)	160011-001	16 PX
	160012-001	20 PX
	160013-001	25 PX
	160014-001	32 PX
	160015-001	40 PX
	139741-402	50 MX
139751-402	63 MX	

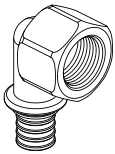
Description	Art. - No.	DN in mm
<b>Reducing Coupling</b> (MX)	160041-001	20 - 16 PX
	160042-001	25 - 16 PX
	160043-001	25 - 20 PX
	160044-001	32 - 25 PX
	138018-001	40 - 25 MX
	160047-001	40 - 32 PX
	137863-001	50 - 32 MX
	137843-401	50 - 40 MX
138019-401	63 - 40 MX	
137853-401	63 - 50 MX	

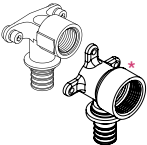
Description	Art. - No.	DN in mm
<b>Elbow 90°</b> (MX)	160021-001	16 PX
	160022-001	20 PX
	160023-001	25 PX
	160024-001	32 PX
	160025-001	40 PX
	139882-401	50 MX
137873-401	63 MX	

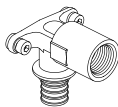
Description	Art. - No.	DN in mm
<b>Elbow 45°</b> (MX)	160052-001	20 PX
	160053-001	25 PX
	160054-001	32 PX
	160055-001	40 PX
	137094-401	50 MX
	137104-401	63 MX

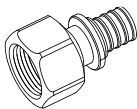
**RAUTITAN components**

Description	Art. - No.	DN in mm	
<b>Elbow Adaptor - male thread</b> 	218661-001	16 - R 1/2	MX
	218662-001	20 - R 1/2	MX
	218663-001	20 - R 3/4	MX
	217425-001	25 - R 3/4	MX
	217461-001	25 - R 1	MX
	217426-001	32 - R 1	MX
	217428-401	40 - 1-1/4	MX

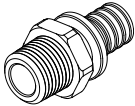
Description	Art. - No.	DN in mm	
<b>Elbow Adaptor - female thread</b> 	218664-001	16 - Rp 1/2	MX
	137124-001	16 - Rp 3/4	MX
	137305-001	20 - Rp 1/2	MX
	218665-401	20 - Rp 3/4	MX

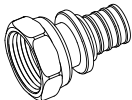
Description	Art. - No.	DN in mm	
<b>Short Wall- mounted Elbow - female thread</b> 	217429-401*	16 - Rp 1/2	MX
	106511-001	20 - Rp 1/2	MX
	217431-001*	20 - Rp 3/4	MX
	138591-405	25 - Rp 3/4	MX


Description	Art. - No.	DN in mm	
<b>Long Wall- mounted Elbow - female thread</b> 	138441-405	16 - Rp 1/2	MX
	138451-405	20 - Rp 1/2	MX

Description	Art. - No.	DN in mm	
<b>Straight Connector, female thread</b> 	216995-001	16 - Rp 1/2	MX
	218614-001	20 - Rp 1/2	MX
	216996-001	20 - Rp 3/4	MX
	139281-002	25 - Rp 1/2	MX
	216997-001	25 - Rp 3/4	MX
	139101-002	32 - Rp 3/4	MX
	216999-001	32 - Rp 1	MX

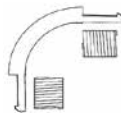
**RAUTITAN components**

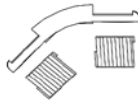
Description	Art. - No.	DN in mm	
<b>Straight Connector, male thread</b> 	216989-001	16 - R 1/2	MX
	218609-001	16 - R 3/4	MX
	216990-001	20 - R 1/2	MX
	216991-001	20 - R 3/4	MX
	218611-001	20 - R 1	MX
	139181-002	25 - R 1/2	MX
	216992-001	25 - R 3/4	MX
	218612-001	25 - R 1	MX
	218613-001	32 - R 3/4	MX
	216993-001	32 - R 1	MX
	216994-001	40 - R 1-1/4	MX
	139711-402	50 - R 1-1/2	MX
	139721-402	63 - R 2	MX


Description	Art. - No.	DN in mm	
<b>Straight Tap Connector with gasket</b> 	139551-002	16 - G 1/2	MX
	139561-002	20 - G 1/2	MX
	139571-002	20 - G 3/4	MX
	139912-001	25 - G 3/4	MX
	139922-001	25 - G 1	MX
	139932-001	32 - G 1	MX


Description	Art. - No.	DN in mm	
<b>Clip-on Support Channel</b> 3m/length 	138033-001	16	
	138043-001	20	
	138053-001	25	
	138063-001	32	
	138073-001	40	
	138083-001	50	
	138093-001	63	

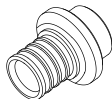
**RAUTITAN components**


Description	Art. - No.	DN in mm	
<b>Profile Bent Bracket 90° x 3D - with spring</b> 	138881-002	16	
	138891-002	20	
	138351-002	25	
	138641-002	32	
	261153-001	32 (5D)	

Description	Art. - No.	DN in mm	
<b>Profile Bent Bracket 45° x 3D - with spring</b> 	139121-002	16	
	139131-002	20	
	138911-002	25	
	138921-002	32	

Description	Art. - No.	DN in mm	
<b>Profile Bent Bracket 90° x 5D - no spring</b> 	258408-002	16	
	258798-002	20	
	257249-002	25	

Description	Art. - No.	DN in mm	
<b>Profile Bent Bracket 45° x 5D - no spring</b> 	265729-001	16	
	268624-001	20	
	268634-001	25	

Description	Art. - No.	DN in mm	
<b>Stopper</b> 	217433-001	16	MX
	217434-401	20	MX

Description	Art. - No.	DN in mm	
<b>RAUTITAN Gate Valve</b> 	208896-001	16	
	215583-001	20	
	215585-001	25	
	215586-001	32	
	215587-001	40	

PX: Material: PPSU, Color: Black  
MX: Material: DZR Brass, Color: Natural Brass

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