

ROCKWOOL

Matched-half Bends and Pipe Bend Segments

Insulation for pipe bends

Insulating pipe bends using pieces cut on-site from straight pipe section is difficult, time consuming, potentially inaccurate and results in material wastage. Gaps at joints reduce thermal efficiency and can lead to hot spots that may burn personnel or discolour cladding.

Rockwool bend insulation can be installed quickly, simply and accurately.

Two specially engineered Rockwool products are available to insulate bends in mild steel pipes:

- Matched-half Bends
- Pipe Bend Segments

Advantages

- quick, simple and accurate installation
- accurate fit ensures heat loss through joints is minimised
- lightweight
- reduced material wastage
- excellent thermal and acoustic insulation
- non-combustible
- high temperature use



Rockwool Matched-half Bends and Pipe Bend Segments wired onto pipe-work

Product description

'Matched-half Bends' are supplied in two curved half-shells that closely follow the radius line of the pipe bend.

'Pipe Bend Segments' comprise 1000 mm long Rockwool Process Pipe Sections pre-cut into wedge-shaped segments. Two 11.25° starter/finisher segments and three 22.5° full segments are required to insulate each pipe bend. The number of segments in each 1000 mm pack is shown in the packing chart, right.

One segment in each pack is partially cut through allowing it to be used as a 22.5° segment or cut quickly and accurately into two 11.25° starter/finisher segments. For certain pipe sizes, the pack also contains one 11.25° starter/finisher segment. Rockwool Segmented Bends are ideally suited for use on large diameter pipe bends where installation is the most physically unwieldy.

Product dimensions

Sizes of bend insulation available to suit 1 1/2 D long radius mild steel pipe bends (2 1/2 D products available to order):

Pipe OD (mm)	Insulation thickness (mm)									
	25	30	40	50	60	70	80	90	100	
102, 108, 114, 127, 140 159, 169, 194, 205, 219	Matched-half Bends									
245										
253										
273										
305										
318										
324										
356	n/a									
406	n/a	n/a	Pipe Bend Segments							
419	n/a	n/a								
456	n/a	n/a								
508	n/a	n/a								
558	n/a	n/a								n/a
610	n/a	n/a					n/a	n/a	n/a	n/a

n/a = size not available

Fire

Non-combustible in accordance with BS EN ISO 1182.

Water repellency

Rockwool Bends and Bend Segments are highly water repellent. The insulation meets the requirement for water repellency to be maintained subsequent to heating at elevated temperatures, specified by BP Engineering Standard BP 172.

Service temperatures

Rockwool Bends and Bend Segments are used to insulate pipe work operating at temperatures up to 700°C. At low temperatures, the insulation is used to protect against frost damage.

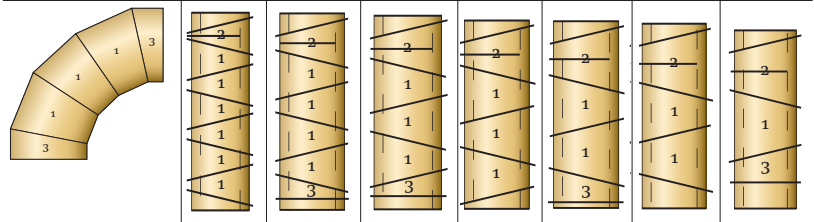
At temperatures above approximately 200°C, there will be a partial loss of binder close to the hot surface but this will not normally affect the efficiency of the insulation.

Acoustics

The use of Rockwool bend insulation and Rockwool Process Pipe Sections can considerably reduce the noise emission from noisy pipework. For higher standards of acoustic insulation, refer to Rockwool 'Techwrap2 and Techtube' data sheet.

Pipe Bend Segments packing/ordering chart

Pipe OD (mm)	219	273	324	356	406	456	508 558 610
Full segments ¹	6	4	3	3	2	2	1
Part-cut full segments ²	1	1	1	1	1	1	1
Starter/finisher segments ('half segments') ³	-	1/2	1/2	-	1/2	-	1/2
Total number of segments per 1000 mm pack	7	5 1/2	4 1/2	4	3 1/2	3	2 1/2
Number of 1000 mm packs required per bend	0.57	0.73	0.89	1	1.15	1.34	1.60



Compatibility

Rockwool is compatible with most materials with which it is likely to come into contact in normal building and industrial applications. Precautions should be taken when insulating austenitic stainless steel, regardless of insulation type. Contact Rockwool for further details.

Biological

Rockwool insulation offers no sustenance to vermin and does not encourage the growth of fungi, mould or bacteria.

Environment

Rockwool insulation products are, and always have been, free from gases that are harmful to the environment, such as CFCs, HCFCs, HFCs, pentane or any gases that have Ozone Depletion Potential (ODP) or Global Warming Potential (GWP).

Health and safety

Current HSE 'CHIP' Regulations and EU directive 97/69/EC confirm the safety of Rockwool mineral wool; Rockwool fibres are not classified as a possible human carcinogen.

The maximum exposure limit for mineral wool is 5mg/m³, 8 hour time-weighted average.

A Material Safety Data Sheet is available from the Rockwool Marketing Services Department to assist in the preparation of risk assessments, as required by the Control of Substances Hazardous to Health Regulations (COSHH).

Supply

Available throughout the United Kingdom and Ireland from Rockwool stockists. A list of stockists is available from the Rockwool Marketing Department.

Packaging

Matched-half Bends: larger sizes shrink-wrapped in polyethylene, smaller sizes packed in cardboard cartons.
Pipe Bend Segments: shrink-wrapped in polyethylene.

Technical Information



For further details visit our website at www.rockwool.co.uk or phone the Technical Hotline on 0871 222 1780

Rockwool Limited reserves the right to alter or amend the specification of products without notice as our policy is one of constant improvement.

The information contained in this data sheet is believed to be correct at the date of publication. Whilst Rockwool will endeavour to keep its publications up to date, readers will appreciate that between publications there may be pertinent changes in the law, or other developments affecting the accuracy of the information contained in this data sheet.

The applications shown do not necessarily represent an exhaustive list of applications for Matched-half Bends and Segmental Bends. Rockwool Limited does not accept responsibility for the consequences of using Matched-half Bends and Segmental Bends in applications different from those described above. Expert advice should be sought where such different applications are contemplated, or where the extent of any listed application is in doubt.

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