### **PIPE CLAMPS**

# MÜPRO

## Insulation clamps type 175 EX

#### galvanised

#### Application

- Thermal decoupled pipe attachment in the field of refrigeration
- Specially suitable for attachments in ventilation, air-conditioning, heating, refrigeration installations as well as for hot and chilled water pipes
- Stable insulating element for high impacts

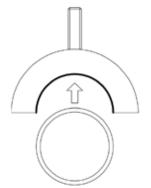
#### Your advantages

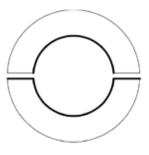
- Two half shells including screws, mounted
- With combined connecting thread metric and inch
- High vapour diffusion resistance
- Ideal for separating individual pipe sections when using open diffusion insulating materials (mineral fibre)
- With caoutchouc lining on the pipe side and on the separation surfaces of the insulating clamp, no PU-Sealer neccessary





Screw on upper half with dual thread



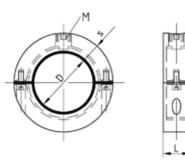


Firmly screw lower half with the offset caoutchouc seating (PUR on caoutchouc, caoutchouc on PUR) firmly to the upper half. The additional use of PU sealer may be obmitted

#### Features

Material	Polyurethane, black				
Fire classification	B2 acc. to DIN 4102 (normally flammable)				
Effective density [kg/m <sup>3</sup> ]	250				
Thermal conductivity	λ = 0.029 W/mK at -180 °C, $λ = 0.032$ W/mK at -150 °C, λ = 0.038 W/mK at -100 °C, $λ = 0.044$ W/mK at -50 °C, λ = 0.047 W/mK at -20 °C, $λ = 0.049$ W/mK at 0 °C, λ = 0.052 W/mK at +20 °C, $λ = 0.054$ W/mK at +40 °C				
Temperature range	-50 °C to +105 °C				
Water vapour diffusion resistance	μ = 1,200				
Compression strength	8.11 N/mm² at -180 °C, 9.62 N/mm² at -80 °C, 4.91 N/mm² at 0 °C, 3.96 N/mm² at +23 °C				

Position pipe



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Pipe outer Ø D [mm]	Connecting thread M	Insulation thickness [mm]	Shell length L [mm]	Locking Screws	Permanent load- bearing capacity [N]	Part no.	Sales unit	Pack unit	
9.5	M8/M10/½"	30	40	5	250	111360	1	Pieces	
12.7						111304			
15.8					270	111312			
17.2						111318			
18					280	111320			
21.3					330	111326			
22					340	111330			
26.9				420	111332				
28					440	111334			
33.7					530	111336			
35			50		550	111338			
42.4					660	111340			
48.3					750	111342			
50					790	111344			
54					870	111346			
60.3					1,200	111350			
64					1,240	111352			
70	M10/½" 40 M12/½"	M10/½"		6	1,370	111354			
76.1					1,480	111356			
88.9					1,730	111358			
108			60		2,530	111299			
114.3					2,670	111302			
129					3,010	111306			
133					3,110	111308			
139.7					3,270	111310			
159				8	3,720	111314			
168.3				4,040	111316				
193.7	M16/3⁄4"	M16/¾" 60	60	0 100		4,300	111322		
204					5,200	111324			
219.1					5,260	111328			

According to the AGI Working Sheet Q 11 ("Arbeitsgemeinschaft Industriebau", an association for industrial construction works) the insulation of refrigeration lines must be made diffusion tight. The connection with the outer pipe insulation is made by using a complying adhesive for the insulation material (use adhesive suitable for PU).