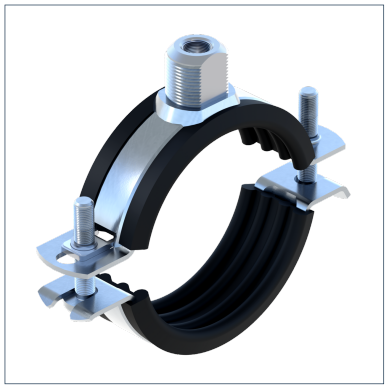
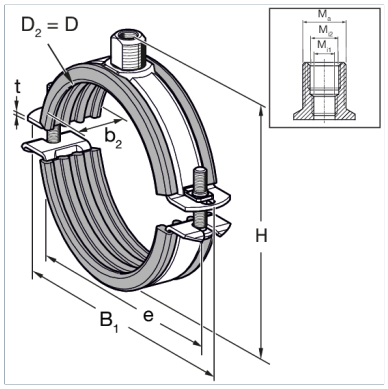
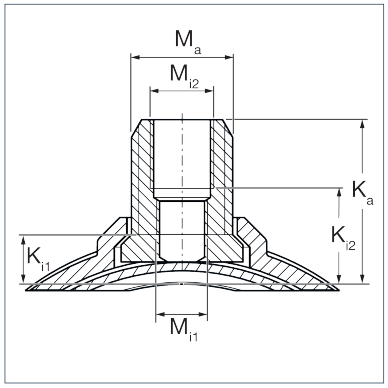
Pipe Clamp RATIO S









General Information

Suitable for installing pipe systems required for all M&E services. For connection options without adapter, see drawing. With Adapter: M12, M16, R 1/2', R 3/4', R 1'. Designed for soundproof ceiling, floor and wall mounting also for the sound insulation requirements according DIN 4109. With sticked interlocking lining, which prevents from accidental loss of lining and allows easy turning and slipping of the pipe during assembly.

Installation

Tightening torques:

Size [mm]	Tightening torque [Nm]
12 - 90	2
108 - 170	3

Mechanical Properties

Insertion isolation	18 dB(A)

Material Properties

Halogen-free	0
UV-resistant	0

Material

Primary element material	steel
Isolating element material	SBR/EPDM
Connecting element material	steel
Surface finish	electro galvanized (Fe//Zn)
Corrosion protection class	C2

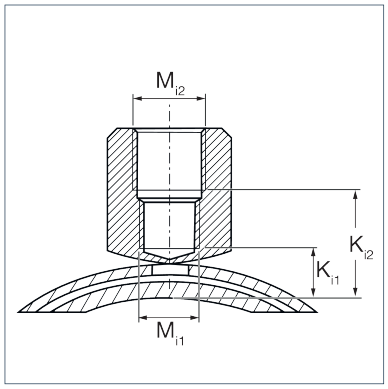
Forces

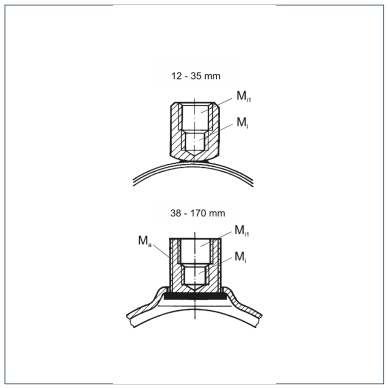
Type	-V{Z,perm.}
RATIO S 12- 20	0.80 kN
RATIO S 21- 27	0.80 kN
RATIO S 28- 35	0.80 kN

Note on loadings

The recommended load is calculated using specific statistical methods relating to break load and is designed to restrict deflection to 1.5 mm or 2 % of the maximum applicable clamping diameter.

Pipe Clamp RATIO S





Fire resistance

Type	Fire Resistance 30 min	Fire Resistance 60 min	Fire Resistance 90 min	Fire Resistance 120 min
RATIO S 12- 20	0.22 kN	0.1 kN	0.06 kN	0.03 kN
RATIO S 21- 27	0.22 kN	0.1 kN	0.06 kN	0.03 kN
RATIO S 28- 35	0.22 kN	0.1 kN	0.06 kN	0.03 kN

Types

Type	Size min.	Size max.	DN	Thread connection	Weight	Quantity	Part number
RATIO S 12- 20	12.00 mm	20.00 mm	DN 10 (3/8")	M8/M10	0.059 kg/ pcs.	100 pcs.	154804
RATIO S 21- 27	21.00 mm	27.00 mm	DN 20 (3/4")	M8/M10	0.067 kg/ pcs.	100 pcs.	154813
RATIO S 28- 35	28.00 mm	35.00 mm	DN 25 (1")	M8/M10	0.075 kg/ pcs.	100 pcs.	154822

Dimensions

Type	B1	b2	D	D2	e	H	Mi1	Mi2	t	Ki1	Ki2
RATIO S 12- 20	56 mm	24.5 mm	17 mm	17 mm	40 mm	48.5 mm	M8	M10	1.5 mm	9.44 mm	16.67 mm
RATIO S 21- 27	64 mm	24.5 mm	25 mm	25 mm	48 mm	56.5 mm	M8	M10	1.5 mm	9.44 mm	16.67 mm
RATIO S 28- 35	76 mm	24.5 mm	32 mm	32 mm	60 mm	63.5 mm	M8	M10	1.5 mm	9.44 mm	16.67 mm

Certification

This product has been awarded the RAL quality marks "pipe supports" and "fire-tested pipe supports" and is subject to continuous external monitoring according to RAL GZ-655.