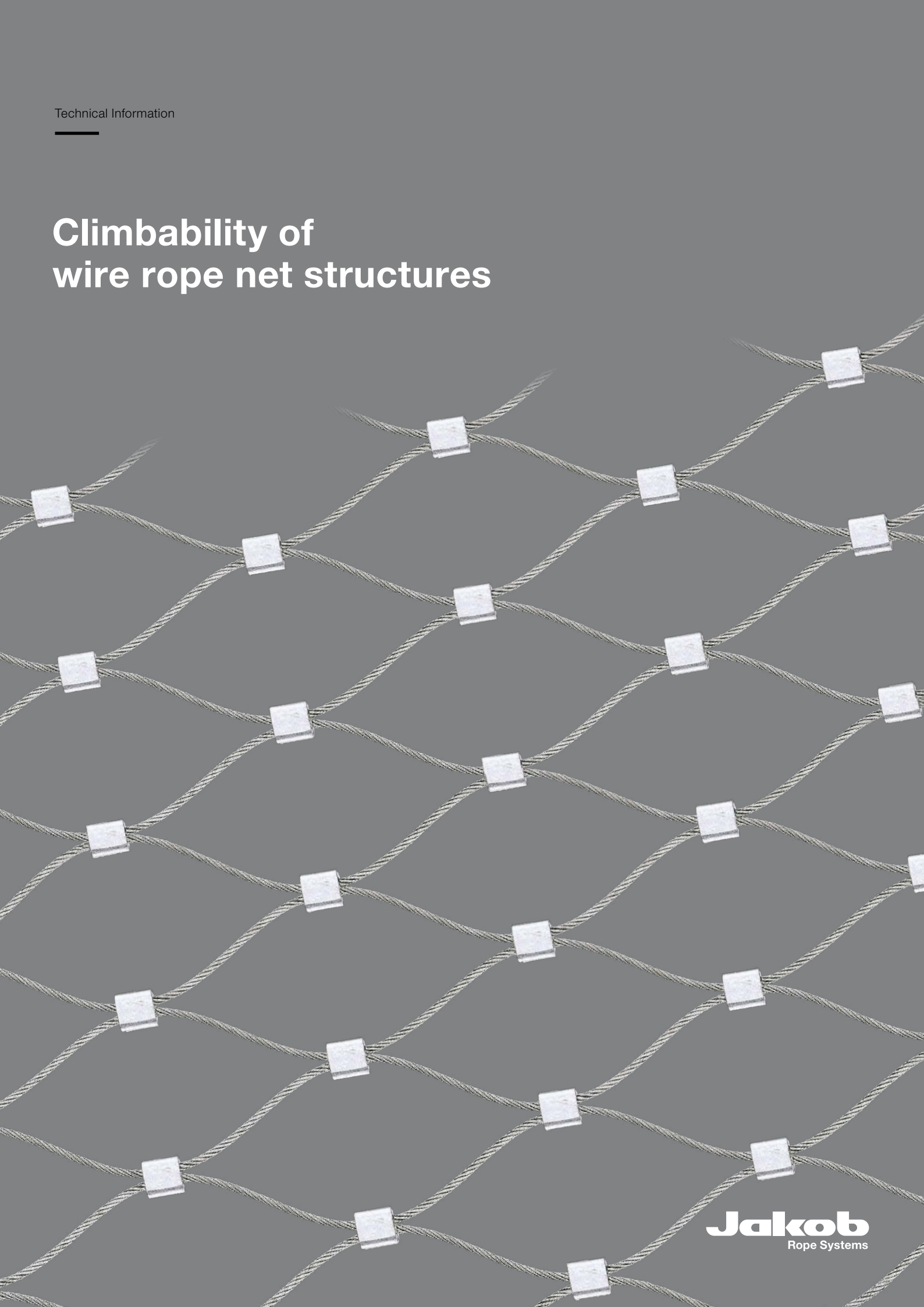
Technical Information

Climbability of wire rope net structures



Jakob
Rope Systems

In Switzerland, there is no binding standard regarding the climbability of wire rope nets in railings and vertical structures. We refer to the recommendation from the BFU (Swiss Accident Prevention Agency), which defines a mesh size of up to 40 millimeters as “difficult to climb” in the technical document “BFU 2.003 Railings and Balustrades”.

In our view, the size of the opening or passage is crucial. It must be smaller than 40 mm and can be either rectangular or circular in shape.

In Practice

In Switzerland, vertical fall protection systems, such as infill panels for railings, are commonly installed using Webnet. A mesh size of 40 millimeters (mesh geometry approximately 40 × 75 millimeters) is typically specified in the tender documents for railing infills.

When assessing climbability, no distinction is typically made between vertical and horizontal mesh directions. Based on our experience, the 40-millimeter mesh size has been accepted by the relevant authorities and institutions, with only a few exceptions.

Higher Construction Standards

Some construction projects have climbability requirements that go beyond the usual practice. This applies to facilities such as kindergartens, playgrounds, or hospitals. The maximum mesh size is typically determined by the responsible engineers or project planners.

In some cases, smaller passage dimensions are specified, or Webnet is installed with a vertical mesh orientation.

Specific Evaluation

As a manufacturer of wire rope nets, we recommend sampling the nets for special requirements. Sample nets or mock-up installations help to provide a more accurate assessment. We are happy to assist you by supplying Webnet sample nets.

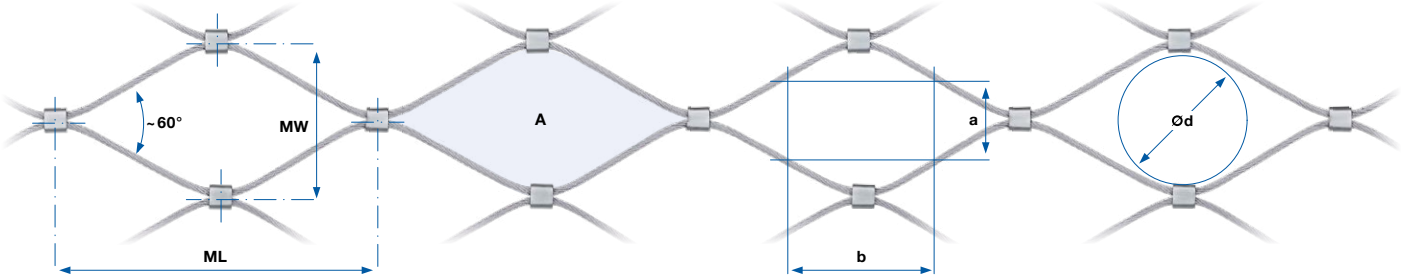
For inquiries or orders, please feel free to contact us.

Applications of the wire rope mesh structure Webnet for railings.

Webnet Micro Material group AISI 316 | Mesh angle ~ 60°

No.	Mesh aperture MW × ML	A	a	b	Mesh aperture[1] Ød
	mm	mm²	mm	mm	mm
20261-0150-025	25 × 45,46	476	12	22	19
20261-0150-030	30 × 60,73	794	14	30	24
20261-0150-035	35 × 67,98	1060	16	33	29
20261-0150-040	40 × 75,18	1361	19	37	34
20261-0150-050	50 × 91,39	2113	24	45	44
20261-0150-060	60 × 107,78	3033	29	53	54
20261-0200-040	40 × 74,93	1308	18	36	33
20261-0200-050	50 × 91,11	2049	23	45	43
20261-0200-060	60 × 107,54	2959	28	53	53

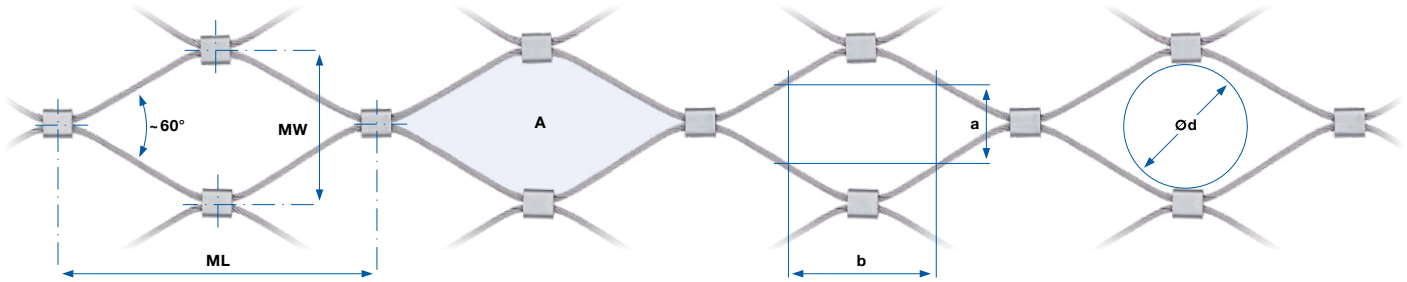
[1] The stated passage dimensions change with a deviating mesh angle of ~60°.



Webnet Material group AISI 316 | Mesh angle ~ 60°

No.	Mesh aperture MW × ML	A	a	b	Mesh aperture[1] Ød
	mm	mm²	mm	mm	mm
20256-0300-040	40 × 74,8	1198	17	36	30
20256-0300-050	50 × 90,5	1909	22	44	40
20256-0300-060	60 × 106,6	2771	27	51	50

[1] The stated passage dimensions change with a deviating mesh angle of ~60°.



Webnet hülsenlos Material group AISI 316 | Mesh angle ~ 60°

No.	Mesh aperture MW × ML	A	a	b	Mesh aperture[1] Ød
	mm	mm²	mm	mm	mm
20260-0150-025	25 × 44,61	482	11	22	21
20260-0150-030	30 × 60,18	803	14	29	27
20260-0150-035	35 × 66,74	1056	16	33	30
20260-0150-040	40 × 74,76	1370	19	37	35
20260-0150-050	50 × 89,74	2091	24	44	43
20260-0150-060	60 × 105,66	2989	29	52	51
20260-0200-040	40 × 74,8	1328	18	36	34
20260-0200-050	50 × 89,72	2040	23	44	43
20260-0200-060	60 × 105,72	2931	25	52	51
20260-0300-040	40 × 73,86	1248	17	35	33
20260-0300-050	50 × 88,26	1909	22	43	42
20260-0300-060	60 × 105,66	2812	27	51	50

[1] The stated passage dimensions change with a deviating mesh angle of ~ 60°.