ANP-Systems Hollow Bar System

Technical data

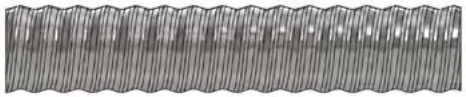


National Technical Approvals available

Verified Environmental Product Declaration (EPD)

Technical data hollow bars

R-thread
032, 038, 051

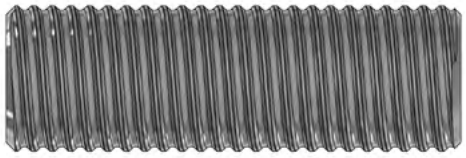


H0-0210-032

Outer diameter

Ultimate load capacity

RR-thread
064, 076, 108



H0-1000-064

Outer diameter

Ultimate load capacity

		Outer diameter $D_{a,nom}$ ❶	Inner diameter D_i ❶	Cross sectional area A ❷	Weight m	Yield load capacity $F_{p0,2}$ ❸	Ultimate load capacity F_m ❸	Strain stiffness E x A	Bending stiffness E x I	Thread direction
Type		[mm]	[mm]	[mm²]	[kg/m]	[kN]	[kN]	[10³ kN]	[10⁶ kN/mm²]	-
R32	H0-0210-032	32	20	330	2.6	170	210	68	6.4	left
	H0-0250-032	32	19	370	2.9	190	250	76	6.7	left
	H0-0280-032	32	17.5	435	3.4	230	280	89	7.0	left
	H0-0320-032	32	15	485	3.8	250	320	99	7.5	left
	H0-0360-032	32	14.5	510	4.0	280	360	105	7.5	left
	H0-0400-032	32	10	560	4.4	330	400	115	7.9	left
R38	H0-0420-038	38	21	640	5.0	350	420	131	15.9	left
	H0-0500-038	38	18.5	740	5.8	400	500	152	16.7	left
	H0-0550-038	38	15	840	6.6	450	550	172	17.3	left
	H0-0630-038	38	12.8	905	7.1	520	630	186	17.6	left
R51	H0-0630-051	51	33	930	7.3	530	630	191	42.8	left
	H0-0800-051	51	29	1145	9.0	640	800	235	47.6	left
	H0-0950-051	51	24	1335	10.5	760	950	274	51.4	left
RR64	H0-1000-064	64	42	1470	11.5	800	1000	301	115	right
	H0-1200-064	64	38.5	1720	13.5	950	1200	353	124	right
	H0-1400-064	64	34	1975	15.5	1075	1400	405	132	right
	H0-1600-064	64	29.2	2250	17.7	1200	1600	461	139	right
RR76	H0-1400-076	76	54	2020	15.8	1080	1400	414	228	right
	H0-1600-076	76	51.5	2270	17.8	1200	1600	465	243	right
	H0-1900-076	76	46	2620	20.5	1500	1900	537	268	right
	H0-2400-076	76	34	3310	26.0	1800	2400	679	300	right
RR108	H0-2400-108	108	82	3550	27.8	1800	2400	728	811	right
	H0-2800-108	108	79	3840	30.2	2100	2800	787	874	right
	H0-3200-108	108	73.7	4450	35.0	2375	3200	912	969	right
	H0-3600-108	108	69.3	5000	39.2	2700	3600	1025	1034	right
	H0-4000-108	108	63.9	5480	43.0	3000	4000	1123	1098	right
	H0-4500-108	108	55.9	6305	49.5	3375	4500	1292	1167	right

❶ nominal values | ❷ calculated from the nominal weight ($A = 10^3 \times m / 7.85$ [kg/m³]) | ❸ characteristic value (5%-fractile)

Unit lengths:
standard stock unit lengths 2m, 3m, 4m and 6m other lengths on request

General data valid for full dimensional portfolio:
- elongation at ultimate load $A_{gt} \geq 5\%$
- $Rm/Rp_{0,2} \geq 1,15$
- E-Modulus 205.000 N/mm²

Threading:
- R32 & R38 single pitch thread according to ISO 10208
- R51 single pitch thread according to ISO 1720
- RR64 until RR108 double pitch thread according to ANP factory standard

Drill bit types

Description		**cast clay drill bit** for clay, soft soil and sand/gravel	**cast cross drill bit** for mixed soil, weathered soft rock and gravel	**carbide cross drill bit** for rock, sandstone	**carbide button drill bit** for hard rock
					
Code		EW	EX / EXT / EC EY / ES	EXX	ESS
Left hand	**R32**	76 100 115	51 76	51 76	51 76
	R38	90 100 115	76 90	76 90	76 90
	R51	130 150 175 200	76 90 100 115 130	76 90 100 115 130	76 90 100 115 130
Right hand	**RR64**	130 150 250	115 130	115 130	115 130 150
	RR76	175 210 300	130 175 200	115 130 175	130 150 175
	RR108	210 250 300 350	150 200	150 200	150 175 200

Illustrations may differ.

Other dimensions and custom drill bits on request. If required, drill bits of a larger type can be used with an adapter.

Available adapters for drill bits:

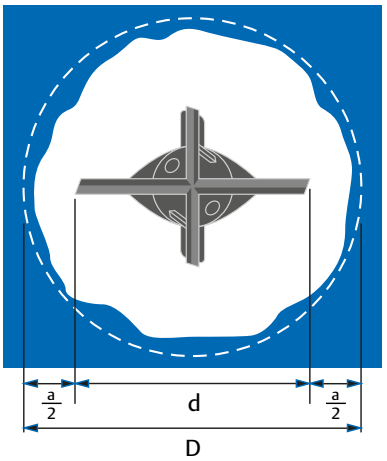
Left hand	Right hand
R38 to R32	RR76 to RR64
R51 to R32	RR108 to RR64
R51 to R38	RR108 to RR76

Diameter of the cement grouted body:
Due to the drilling process in combination with the orientation of the flushing holes in the drill bit and local soil conditions an enlargement of the cement grouted body may be assumed.

According to DIN SPEC 18539, section 3.3, it may be assumed that the pile diameter is at least equal to the diameter of the drill bit or plus 20mm (a≥20mm).

Local experiences show that emperical values of a=50 mm (medium gravel) up to a=75 mm (sand, gravel) can occur.

The diameter of the cement grouted body can be determined as following:



$D_{cement\ grout} = d_{drill\ bit} + a$
$D_{cement\ grout}$ = diameter cement grouted body
$d_{drill\ bit}$ = diameter drill bit
a = value of widening

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We reserve the right to change or correct the data without prior notification. Errors and misprints excepted.

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