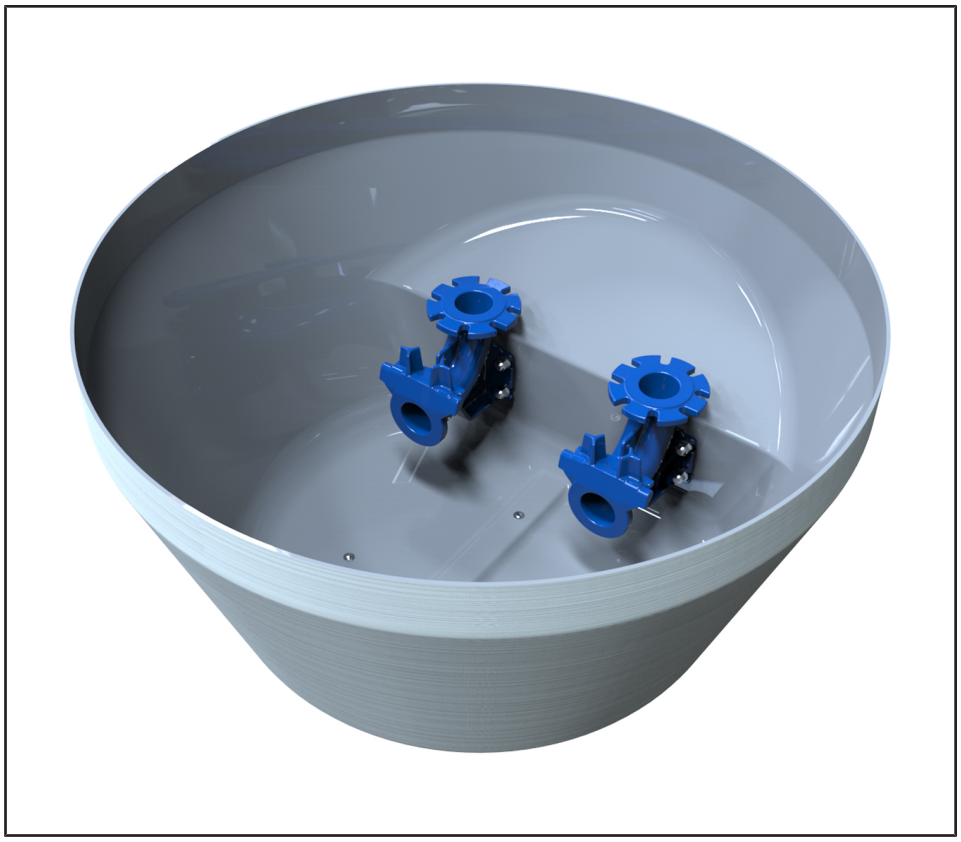
Tank Insert

Amaclean

Type Series Booklet



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Type Series Booklet Amaclean

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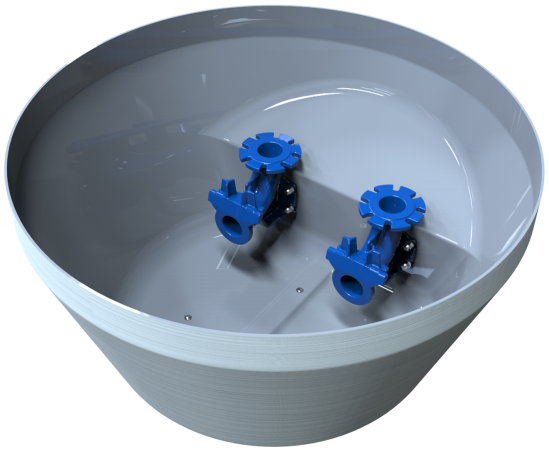
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Lifting Units / Pump Stations

Floodable Sewage Lifting Units

Amaclean



Main applications

- Waste water disposal
- Stormwater disposal

Fluids handled

- Sewage containing feces
- Waste water containing long fibers and solid substances

Operating data

Operating properties

Characteristic		Value
Flow rate	Q [m³/h]	≤ 150
Head	H [m]	≤ 62
Fluid temperature	T [°C]	Same as pump

Design details

Design

- Self-cleaning tank insert made of glass fiber reinforced polyester with special gel coating
- 2 flanged elbows made of stainless steel A4 or cast iron[1)]
- Base reinforcement made of steel S235 with integrated fastening bolts made of stainless steel A4

Configuration and function

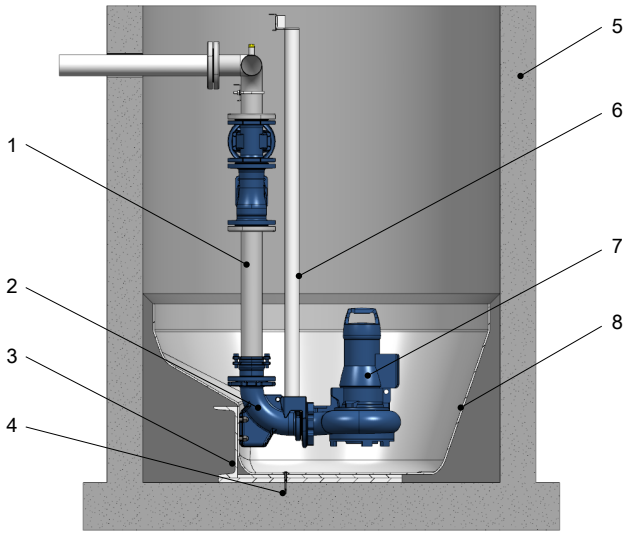


Fig. 1: Configuration (example)

1	Pipe	5	Concrete tank
2	Flanged elbow[2)]	6	Installation parts
3	Base reinforcement[2)]	7	Pump set
4	Nail anchor[2)]	8	Tank insert[2)]



Fig. 2: Illustration (example)

- The installed tank insert enhances the transport of waste water to the pumps.
- The patented, hydraulically optimized shape of the tank insert reliably prevents fiber deposits. The special benching design prevents dead flow zones.
- The self-cleaning effect of the tank insert is further enhanced by the gel-coated surface.
- The tank insert made of glass fiber reinforced plastics exceeds concrete materials in service life and resistance to hydrogen sulphide (H_2S).

1) Epoxy-coated
2) Standard scope of supply

Designation

Example: Amaclean 1000NDN050GGR60

Designation key

Code	Description	
Amaclean	Type series	
1000	Maximum inside diameter [mm]	
	1000	
	1400	
	1800	
N	Design	
	N	With flange to EN 1092-2
	W	Without flange
DN50	Flanged elbow	
	DN 050	
	DN 065	
	DN 080	
	DN 100	
GG	Material of flanged elbow / claw	
	GG	Cast iron / cast iron
	CC	Stainless steel / stainless steel
	CG	Stainless steel / cast iron
R	Installation parts	
	R	Guide rail arrangement
	W	Guide cable arrangement

Code	Description	
60	Installation depth	
	45	4.5 m
	60	6.0 m
	90	9.0 m

Materials

Table of materials

Component	Material
Tank insert	Glass fiber reinforced polyester
Base reinforcement	Steel S235
Inserts for fastening the feet	Stainless steel A4
Base elbow	Cast iron or stainless steel A4

Product benefits

- Deposits are prevented by the self-cleaning design of the tank insert and the gel-coated inner surface.
- Steel-reinforced base provides enhanced anchoring in the concrete and excellent durability of base elbow fastening.
- Contamination with and deposits of floating solids in the lower parts of the structure are prevented; waste and fibers contained in the waste water are pumped off more easily due to patented design (KSB patent).
- No separate flushing valves required for selected hydraulic systems

Technical data

Amaclean, material variant GG

GG = material variant cast iron (flanged elbow) / cast iron (claw)

Amaclean	Maximum inside diameter of tank insert	Flanged elbow DN	Installation depth	Pump		Guide cable arrangement	Guide rail arrangement	Flange to EN 1092-2	Material	Mat. No.	[kg]
	[mm]	[mm]	[m]	Amarex KRT	Amarex N						
1000NDN050GGR60	1000	50	6,00	✗	-	-	✗	✗	GG	49711911	102,5
1000WDN050GGR60	1000	50	6,00	-	✗	-	✗	-	GG	49711912	95,5
1000NDN065GGR60	1000	65	6,00	✗	-	-	✗	✗	GG	49711914	105
1000WDN065GGR60	1000	65	6,00	-	✗	-	✗	-	GG	49711913	100
1400NDN050GGR60	1400	50	6,00	✗	-	-	✗	✗	GG	49711916	116
1400WDN050GGR60	1400	50	6,00	-	✗	-	✗	-	GG	49711917	115
1400NDN065GGR60	1400	65	6,00	✗	-	-	✗	✗	GG	49711919	126
1400WDN065GGR60	1400	65	6,00	-	✗	-	✗	-	GG	49711918	121
1400WDN080GGR60	1400	80	6,00	✗	✗	-	✗	-	GG	49711920	134
1400WDN100GGR60	1400	100	6,00	✗	✗	-	✗	-	GG	49711915	154
1800NDN050GGR60	1800	50	6,00	✗	-	-	✗	✗	GG	49711922	174
1800WDN050GGR60	1800	50	6,00	-	✗	-	✗	-	GG	49711923	166
1800NDN065GGR60	1800	65	6,00	✗	-	-	✗	✗	GG	49711925	177
1800WDN065GGR60	1800	65	6,00	-	✗	-	✗	-	GG	49711924	171
1800WDN080GGR60	1800	80	6,00	✗	✗	-	✗	-	GG	49711926	184
1800WDN100GGR60	1800	100	6,00	✗	✗	-	✗	-	GG	49711921	204
1000NDN050GGW45	1000	50	4,50	✗	-	✗	-	✗	GG	49711953	103
1000WDN050GGW45	1000	50	4,50	-	✗	✗	-	-	GG	49711954	103
1000NDN065GGW45	1000	65	4,50	✗	-	✗	-	✗	GG	49711956	106
1000WDN065GGW45	1000	65	4,50	-	✗	✗	-	-	GG	49711955	106
1400NDN050GGW45	1400	50	4,50	✗	-	✗	-	✗	GG	49711958	124
1400WDN050GGW45	1400	50	4,50	-	✗	✗	-	-	GG	49711959	124
1400NDN065GGW45	1400	65	4,50	✗	-	✗	-	✗	GG	49711961	127

Amaclean	Maximum inside diameter of tank insert	Flanged elbow DN	Installation depth	Pump		Guide cable arrangement	Guide rail arrangement	Flange to EN 1092-2	Material	Mat. No.	[kg]
	[mm]	[mm]	[m]	Amarex KRT	Amarex N						
1400WDN065GGW45	1400	65	4,50	-	✗	✗	-	-	GG	49711960	127
1400WDN080GGW45	1400	80	4,50	✗	✗	✗	-	-	GG	49711962	134
1400WDN100GGW45	1400	100	4,50	✗	✗	✗	-	-	GG	49711957	154
1800NDN050GGW45	1800	50	4,50	✗	-	✗	-	✗	GG	49711964	174
1800WDN050GGW45	1800	50	4,50	-	✗	✗	-	-	GG	49711965	174
1800NDN065GGW45	1800	65	4,50	✗	-	✗	-	✗	GG	49711967	177
1800WDN065GGW45	1800	65	4,50	-	✗	✗	-	-	GG	49711966	177
1800WDN080GGW45	1800	80	4,50	✗	✗	✗	-	-	GG	49711968	184
1800WDN100GGW45	1800	100	4,50	✗	✗	✗	-	-	GG	49711963	204
1000NDN050GGW90	1000	50	9,00	✗	-	✗	-	✗	GG	49711995	103
1000WDN050GGW90	1000	50	9,00	-	✗	✗	-	-	GG	49711996	103
1000NDN065GGW90	1000	65	9,00	✗	-	✗	-	✗	GG	49711998	106
1000WDN065GGW90	1000	65	9,00	-	✗	✗	-	-	GG	49711997	106
1400NDN050GGW90	1400	50	9,00	✗	-	✗	-	✗	GG	49712000	124
1400WDN050GGW90	1400	50	9,00	-	✗	✗	-	-	GG	49712001	124
1400NDN065GGW90	1400	65	9,00	✗	-	✗	-	✗	GG	49712003	127
1400WDN065GGW90	1400	65	9,00	-	✗	✗	-	-	GG	49712002	127
1400WDN080GGW90	1400	80	9,00	✗	✗	✗	-	-	GG	49712004	134
1400WDN100GGW90	1400	100	9,00	✗	✗	✗	-	-	GG	49711999	154
1800NDN050GGW90	1800	50	9,00	✗	-	✗	-	✗	GG	49712006	174
1800WDN050GGW90	1800	50	9,00	-	✗	✗	-	-	GG	49712007	174
1800NDN065GGW90	1800	65	9,00	✗	-	✗	-	✗	GG	49712009	177
1800WDN065GGW90	1800	65	9,00	-	✗	✗	-	-	GG	49712008	177
1800WDN080GGW90	1800	80	9,00	✗	✗	✗	-	-	GG	49712010	184
1800WDN100GGW90	1800	100	9,00	✗	✗	✗	-	-	GG	49712005	204

Amaclean, material variant CC

CC = material variant stainless steel (flanged elbow) / stainless steel (claw)

Amaclean	Maximum inside diameter of tank insert	Flanged elbow DN	Installation depth	Pump		Guide cable arrangement	Guide rail arrangement	Flange to EN 1092-2	Material	Mat. No.	[kg]
	[mm]	[mm]	[m]	Amarex KRT	Amarex N						
1000NDN050CCR60	1000	50	6,00	✗	-	-	✗	✗	CC	49711943	101
1000NDN065CCR60	1000	65	6,00	✗	-	-	✗	✗	CC	49711944	100
1400NDN050CCR60	1400	50	6,00	✗	-	-	✗	✗	CC	49711946	122
1400NDN065CCR60	1400	65	6,00	✗	-	-	✗	✗	CC	49711947	122
1400WDN080CCR60	1400	80	6,00	✗	✗	-	✗	-	CC	49711948	123
1400WDN100CCR60	1400	100	6,00	✗	✗	-	✗	-	CC	49711945	139
1800NDN050CCR60	1800	50	6,00	✗	-	-	✗	✗	CC	49711950	172
1800NDN065CCR60	1800	65	6,00	✗	-	-	✗	✗	CC	49711951	172
1800WDN080CCR60	1800	80	6,00	✗	✗	-	✗	-	CC	49711952	173
1800WDN100CCR60	1800	100	6,00	✗	✗	-	✗	-	CC	49711949	189
1000NDN050CCW45	1000	50	4,50	✗	-	✗	-	✗	CC	49711985	101
1000NDN065CCW45	1000	65	4,50	✗	-	✗	-	✗	CC	49711986	101
1400NDN050CCW45	1400	50	4,50	✗	-	✗	-	✗	CC	49711988	122
1400NDN065CCW45	1400	65	4,50	✗	-	✗	-	✗	CC	49711989	122
1400WDN080CCW45	1400	80	4,50	✗	✗	✗	-	-	CC	49711990	123
1400WDN100CCW45	1400	100	4,50	✗	✗	✗	-	-	CC	49711987	139
1800NDN050CCW45	1800	50	4,50	✗	-	✗	-	✗	CC	49711992	172
1800NDN065CCW45	1800	65	4,50	✗	-	✗	-	✗	CC	49711993	172
1800WDN080CCW45	1800	80	4,50	✗	✗	✗	-	-	CC	49711994	173

Amaclean	Maximum inside diameter of tank insert	Flanged elbow	Installation depth	Pump		Guide cable arrangement	Guide rail arrangement	Flange to EN 1092-2	Material	Mat. No.	[kg]
		DN		Amarex KRT	Amarex N						
	[mm]	[mm]	[m]								
1800WDN100CCW45	1800	100	4,50	✗	✗	✗	-	-	CC	49711991	189
1000NDN050CCW90	1000	50	9,00	✗	-	✗	-	✗	CC	49712027	101
1000NDN065CCW90	1000	65	9,00	✗	-	✗	-	✗	CC	49712028	101
1400NDN050CCW90	1400	50	9,00	✗	-	✗	-	✗	CC	49712030	122
1400NDN065CCW90	1400	65	9,00	✗	-	✗	-	✗	CC	49712031	122
1400WDN080CCW90	1400	80	9,00	✗	✗	✗	-	-	CC	49712032	123
1400WDN100CCW90	1400	100	9,00	✗	✗	✗	-	-	CC	49712029	139
1800NDN050CCW90	1800	50	9,00	✗	-	✗	-	✗	CC	49712034	172
1800NDN065CCW90	1800	65	9,00	✗	-	✗	-	✗	CC	49712035	172
1800WDN080CCW90	1800	80	9,00	✗	✗	✗	-	-	CC	49712036	173
1800WDN100CCW90	1800	100	9,00	✗	✗	✗	-	-	CC	49712033	189

Amaclean, material variant CG

CG = material variant stainless steel (flanged elbow) / gray cast iron (claw)

Amaclean	Maximum inside diameter of tank insert	Flanged elbow	Installation depth	Pump		Guide cable arrangement	Guide rail arrangement	Flange to EN 1092-2	Material	Mat. No.	[kg]
		DN		Amarex KRT	Amarex N						
	[mm]	[mm]	[m]								
1000NDN050CGR60	1000	50	6,00	✗	-	-	✗	✗	CG	49711927	100
1000WDN050CGR60	1000	50	6,00	-	✗	-	✗	-	CG	49711928	93
1000NDN065CGR60	1000	65	6,00	✗	-	-	✗	✗	CG	49711930	100
1000WDN065CGR60	1000	65	6,00	-	✗	-	✗	-	CG	49711929	96
1400NDN050CGR60	1400	50	6,00	✗	-	-	✗	✗	CG	49711932	122
1400WDN050CGR60	1400	50	6,00	-	✗	-	✗	-	CG	49711933	114
1400NDN065CGR60	1400	65	6,00	✗	-	-	✗	✗	CG	49711935	120
1400WDN065CGR60	1400	65	6,00	-	✗	-	✗	-	CG	49711934	117
1400WDN080CGR60	1400	80	6,00	✗	✗	-	✗	-	CG	49711936	126
1400WDN100CGR60	1400	100	6,00	✗	✗	-	✗	-	CG	49711931	144
1800NDN050CGR60	1800	50	6,00	✗	-	-	✗	✗	CG	49711938	172
1800WDN050CGR60	1800	50	6,00	-	✗	-	✗	-	CG	49711939	164
1800NDN065CGR60	1800	65	6,00	✗	-	-	✗	✗	CG	49711941	171
1800WDN065CGR60	1800	65	6,00	-	✗	-	✗	-	CG	49711940	167
1800WDN080CGR60	1800	80	6,00	✗	✗	-	✗	-	CG	49711942	176
1800WDN100CGR60	1800	100	6,00	✗	✗	-	✗	-	CG	49711937	194
1000NDN050CGW45	1000	50	4,50	✗	-	✗	-	✗	CG	49711969	101
1000WDN050CGW45	1000	50	4,50	-	✗	✗	-	-	CG	49711970	101
1000NDN065CGW45	1000	65	4,50	✗	-	✗	-	✗	CG	49711972	100
1000WDN065CGW45	1000	65	4,50	-	✗	✗	-	-	CG	49711971	100
1400NDN050CGW45	1400	50	4,50	✗	-	✗	-	✗	CG	49711974	122
1400WDN050CGW45	1400	50	4,50	-	✗	✗	-	-	CG	49711975	122
1400NDN065CGW45	1400	65	4,50	✗	-	✗	-	✗	CG	49711977	121
1400WDN065CGW45	1400	65	4,50	-	✗	✗	-	-	CG	49711976	121
1400WDN080CGW45	1400	80	4,50	✗	✗	✗	-	-	CG	49711978	126
1400WDN100CGW45	1400	100	4,50	✗	✗	✗	-	-	CG	49711973	144
1800NDN050CGW45	1800	50	4,50	✗	-	✗	-	✗	CG	49711980	172
1800WDN050CGW45	1800	50	4,50	-	✗	✗	-	-	CG	49711981	172
1800NDN065CGW45	1800	65	4,50	✗	-	✗	-	✗	CG	49711983	171
1800WDN065CGW45	1800	65	4,50	-	✗	✗	-	-	CG	49711982	171
1800WDN080CGW45	1800	80	4,50	✗	✗	✗	-	-	CG	49711984	176
1800WDN100CGW45	1800	100	4,50	✗	✗	✗	-	-	CG	49711979	194
1000NDN050CGW90	1000	50	9,00	✗	-	✗	-	✗	CG	49712011	101

Amaclean	Maximum inside diameter of tank insert	Flanged elbow DN	Installation depth	Pump		Guide cable arrangement	Guide rail arrangement	Flange to EN 1092-2	Material	Mat. No.	[kg]
	[mm]	[mm]	[m]	Amarex KRT	Amarex N						
1000WDN050CGW90	1000	50	9,00	-	✘	✘	-	-	CG	49712012	101
1000NDN065CGW90	1000	65	9,00	✘	-	✘	-	✘	CG	49712014	100
1000WDN065CGW90	1000	65	9,00	-	✘	✘	-	-	CG	49712013	100
1400NDN050CGW90	1400	50	9,00	✘	-	✘	-	✘	CG	49712016	122
1400WDN050CGW90	1400	50	9,00	-	✘	✘	-	-	CG	49712017	122
1400NDN065CGW90	1400	65	9,00	✘	-	✘	-	✘	CG	49712019	121
1400WDN065CGW90	1400	65	9,00	-	✘	✘	-	-	CG	49712018	121
1400WDN080CGW90	1400	80	9,00	✘	✘	✘	-	-	CG	49712020	126
1400WDN100CGW90	1400	100	9,00	✘	✘	✘	-	-	CG	49712015	144
1800NDN050CGW90	1800	50	9,00	✘	-	✘	-	✘	CG	49712022	172
1800WDN050CGW90	1800	50	9,00	-	✘	✘	-	-	CG	49712023	172
1800NDN065CGW90	1800	65	9,00	✘	-	✘	-	✘	CG	49712025	171
1800WDN065CGW90	1800	65	9,00	-	✘	✘	-	-	CG	49712024	171
1800WDN080CGW90	1800	80	9,00	✘	✘	✘	-	-	CG	49712026	176
1800WDN100CGW90	1800	100	9,00	✘	✘	✘	-	-	CG	49712021	194

Dimensions

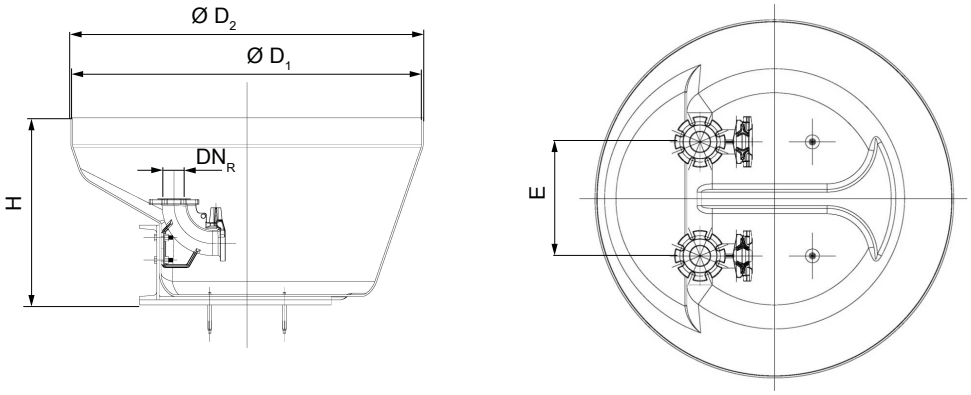


Fig. 3: Dimensions

Selection table

Amaclean	Min. inside diameter of concrete tank	D_1	D_2	DN_R	E	H	Amarex N	Amarex KRT
	[mm]						Impeller	
1000	1200	1000	1014	50, 65	400	527	F, S	Fmax
1400	1500	1400	1414	50, 65, 80, 100	450	750		Smax, Emax
1800	2000	1800	1814	50, 65, 80, 100	650	1027		Kmax

Volume available

Amaclean	Volume of tank insert
	[l]
1000	approx. 320
1400	approx. 810
1800	approx. 1740

Scope of supply

Depending on the model, the following items are included in the scope of supply:

- Tank insert
- Base reinforcement
- 2 flanged elbows
- 3 nail anchors for fastening the tank insert to the floor of the concrete structure
- Fasteners

In addition for pump sets with guide rail arrangement:

- Claw including stainless steel bolts/screws
- Upper mounting bracket

In addition for pump sets with guide cable arrangement:

- Claw including stainless steel bolts/screws
- Upper mounting bracket
- Guide cable suspension bracket
- 10 m / 20 m guide cable made of stainless steel

9/26/2017

1595.5/01-EN-US



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