

Information booklet

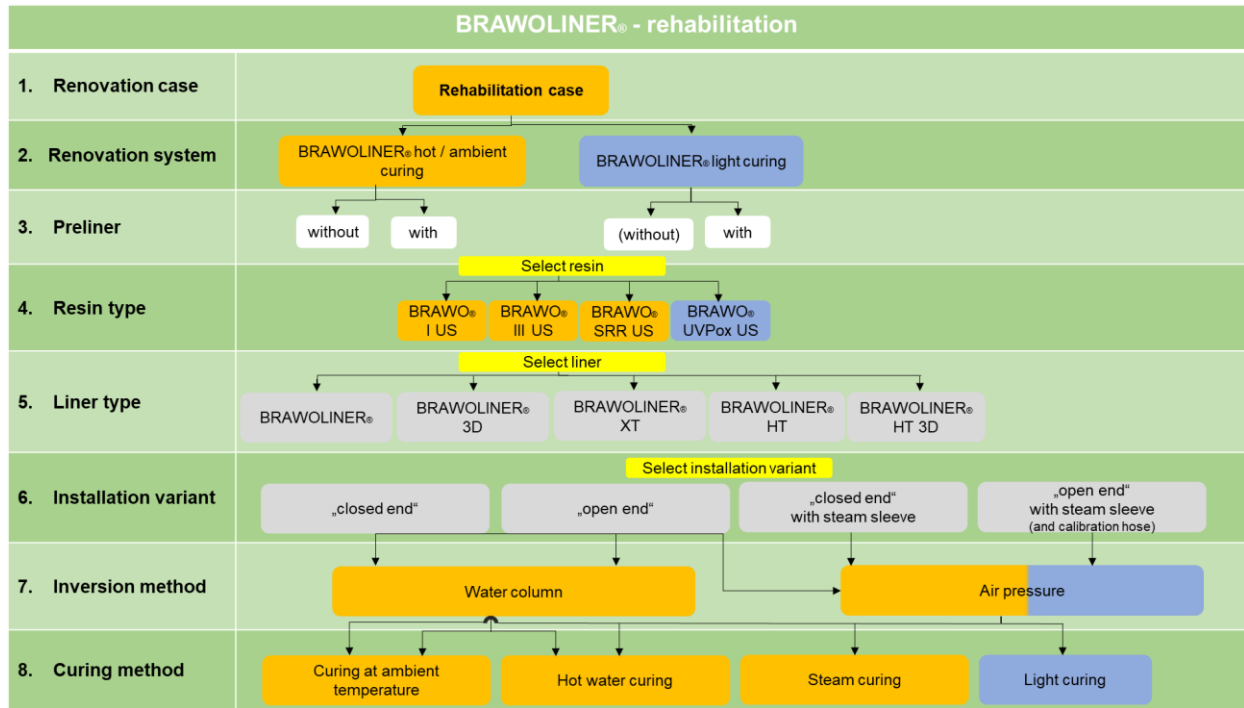
Rehabilitation System BRAWOLINER®



Version: January 2026

1. BRAWOLINER® rehabilitation overview

1.1. Schematic flow diagram



The above decision matrix is used for an overview of all possible BRAWOLINER® rehabilitation variants.

The contents of the individual steps are explained in detail in the following subsections and help in the selection of the suitable variant in individual cases.

2. Hot / ambient curing

2.1. Resin types for hot / ambient curing

Depending on the requirement the following resins can be selected:

Resin types and areas of use									
BRAWO® resin type	Buried lines	Connection nozzle	Line length			Processing time saturated liner	Curing time Cold curing	Curing time Hot curing 122 °F	Curing time Hot Curing 148 °F
			shorter than 5 m (197")	shorter than 15 m (590")	longer than 15 m (590")				
BRAWO® SRR US **)	X	X	(X)			30 min at 59 °F	2 h at 68 °F	30 min	-
BRAWO® I US	X	X	X	X	(X)	50 min at 59 °F	13 h at 50 °F	100 min	45 min*)
BRAWO® III US	X	X	X	X	X	3,5 h at 59 °F ***)	24 h at 50 °F	220 min	140 min*)

*) Only in combination with BRAWOLINER® HT or with a suitable calibration CIPP

**) Attention: When curing BRAWO® SRR with steam, there is a risk of extreme temperature development because of the exothermic resin reaction. Therefore, curing with steam is not recommended.

***) Attention: Larger quantities of resin shorten the processing time. Please refer to the technical data sheet for the resin. At 59 °F recommended resin quantity is max. 440 lbs (200 kg).

(X) Limited processing time. Only recommended with favorable conditions.

General rule:

A temperature increases of 10 °C halves the pot life.

A temperature decreases of 10 °C doubles the pot life.

2.2. Liner types for hot / ambient curing

Liner types and field of application																	
Liner type	Liner name	Buried lines	House internal lines	Steam curing	Ø 50 (1,97")	Ø 70 (2,76")	Ø 80 (3,15")	Ø 100 (3,94")	Ø 120 (4,72")	Ø 150 (5,91")	Ø 175 (6,89")	Ø 200 (7,87")	Ø 225 (8,86")	Ø 250 (9,84")	Ø 300 (11,81")	Ø 375 (14,76")	Ø 400 (15,75")
BRAWOLINER [®]	DN 50 (2")	X		X *)	X	X											
	DN 70 (3")	X		X *)		X	X										
	DN 100 (4")	X		X *)				X									
	DN 125 (5")	X		X *)					X	X							
	DN 150 (6")	X		X *)						X	X						
	DN 200 (8")	X		X *)								X	X	X			
XT	DN 150 (6")	X		X *)						X	X						
	DN 200 (8")	X		X *)								X	X	X			
3D	DN 70-100 (3"-4")	X		X *)		X	X	X									
	DN 100-150 (4"-6")	X		X *)				X	X	X							
	DN 150-225 (6"-9")	X		X *)						X	X	X	X				
	DN 200-300 (8"-12")	X		X								X	X	X	X		
	DN 300-400 (12"-16")	X		X											X	X	X
BRAWOLINER [®] HT	DN 50 (2")	X	X	X	X	X											
	DN 70 (3")	X	X	X		X	X										
	DN 100 (4")	X	X	X				X	X								
	DN 125 (5")	X	X	X					X	X							
	DN 150 (6")	X	X	X						X	X						
	DN 200 (8")	X	X	X								X	X	X			
HT 3D	DN 70-100 (3"-4")	X	X	X		X	X	X									
	DN 100-150 (4"-6")	X	X	X				X	X	X							
	DN 150-225 (6"-9")	X	X	X						X	X	X	X				

*) with the use of a suitable calibration CIPP

The following installation and curing pressures are recommended for the various liner types:

Liner type	Inversion pressure	Curing pressure	Curing pressure with calibration CIPP
BRAWOLINER[®] / XT / HT	approx. 0.2 bar / 2.9 psi	approx. 0.4 bar / 5.8 psi	approx. 0.4 bar / 5.8 psi
BRAWOLINER[®] 3D / HT 3D (DN 70-300 / 3"-12")	approx. 0.2 bar / 2.9 psi	approx. 0.4 bar* / 5.8 psi*	approx. 0.4 bar* / 5.8 psi*
BRAWOLINER[®] 3D DN 300-400 (12"-16")	approx. 0.1 bar / 1.45 psi	approx. 0.2 bar / 2.9 psi	approx. 0.2 bar / 2.9 psi

* Adding heat can create additional expansion. As a result, light curing may require a slightly higher curing pressure

NOTE!



- The values given in the table are recommended; geometry and routing of the rehabilitation section may possibly require other pressures.
- When curing in the largest dimension, especially with BRAWOLINER[®] 3D, it must be ensured that the liner presses against the pipe wall.
- For the curing with water the height differences between start and target point must be taken into account.

3. Light curing

3.1. Resin type for light curing

The light curable epoxy resin BRAWO[®] UVPox US is used during rehabilitation in the curing process with the **BRAWOLINER[®]** light curing system.

3.2. Liner types for light curing

		Liner type and application area										
BRAWOLINER [®] Liner type	Liner name	Sealing Function	Special static function	Ø 50	Ø 70/80	Ø 100	Ø 120/125	Ø 150	Ø 175	Ø 200/225	Ø 250	Ø 300
BRAWOLINER[®]	DN 50 (2")	X		Pico	Pico Nano							
	DN 70 (3")	X			Pico Nano							
	DN 100 (4")	X				Pico Nano						
	DN 125 (5")	X					Nano Mega	Nano Mega				
	DN 150 (6")	X						Nano Mega	Nano Mega			
	DN 200 (8")	X								Nano Mega		
XT	DN 150 (6")	X	X					Nano Mega	Nano Mega			
	DN 200 (8")	X	X							Nano Mega		
3D	DN 70-100 (3"-4")	X			Pico Nano	Pico Nano						
	DN 100-150 (4"-6")	X				Nano	Nano Mega	Nano Mega				
	DN 150-225 (6"-9")	X						Nano Mega	Nano Mega	Nano Mega		
	DN 200-300 (8"-12")	X								Mega	Mega	Mega

The following installation and curing pressures are recommended for the various liner types:

Liner type	Inversion pressure	Curing pressure	Curing pressure with calibration CIPP
BRAWOLINER[®] / XT	approx. 0.2 bar / 2.9 psi	approx. 0.4 – 0.5 bar / 4.35 – 7.25 psi	approx. 0.4 bar / 5.8 psi
BRAWOLINER[®] 3D	approx. 0.3 bar / 4.35 psi	approx. 0.4 – 0.5 bar / 4.35 – 7.25 psi	approx. 0.4 bar / 5.8 psi

NOTE!



- The values given in the table are recommended; geometry and routing of the rehabilitation section may possibly require other pressures.
- When curing in the largest dimension, especially with **BRAWOLINER[®] 3D**, it must be ensured that the liner presses against the pipe wall.

3.3. BRAWO[®] Pico SX curing speeds

Liner	DN	Retraction speed
BRAWOLINER [®] DN 50	50 2"	0.5 m/min 1.64 ft/min
BRAWOLINER [®] DN 50	70 3"	0.4 m/min 1.31 ft/min
BRAWOLINER [®] DN 70	70 3"	0.3 m/min 0.98 ft/min
BRAWOLINER [®] 3D DN 70-100	70 3"	0.3 m/min 0.98 ft/min
BRAWOLINER [®] 3D DN 70-100	100 4"	0.4 m/min 1.31 ft/min
BRAWOLINER [®] DN 100	100 4"	0.3 m/min 0.98 ft/min

3.4. BRAWO[®] Magnavity SX curing speeds

Liner	DN Inch	Retraction speed	
		Nano_96 LED head	Nano_96 LED head
BRAWOLINER [®] 3D DN 70-100	70 3"	0.60 m/min 1.97 ft/min	-
BRAWOLINER [®] 3D DN 70-100	100 4"	0.60 m/min 1.97 ft/min	-
BRAWOLINER [®] DN 100	100 4"	0.60 m/min 1.97 ft/min	-
BRAWOLINER [®] DN 125	125 5"	0.60 m/min 1.97 ft/min	0.70 m/min 2.30 ft/min
BRAWOLINER [®] DN 125	150 6"	0.60 m/min 1.97 ft/min	0.8 m/min 2.63 ft/min
BRAWOLINER [®] 3D DN 100-150	100 4"	0.60 m/min 1.97 ft/min	-
BRAWOLINER [®] 3D DN 100-150	125 5"	0.55 m/min 1.80 ft/min	0.70 m/min 2.30 ft/min
BRAWOLINER [®] 3D DN 100-150	150 6"	0.50 m/min 1.64 ft/min	0.70 m/min 2.30 ft/min
BRAWOLINER [®] DN 150	150 6"	0.60 m/min 1.97 ft/min	0.70 m/min 2.30 ft/min
BRAWOLINER [®] XT DN 150	150 6"	0.50 m/min 1.64 ft/min	0.60 m/min 1.97 ft/min
BRAWOLINER [®] 3D DN 150-225	150 6"	0.45 m/min 1.48 ft/min	0.70 m/min 2.30 ft/min
BRAWOLINER [®] 3D DN 150-225	200 8"	0.40 m/min 1.31 ft/min	0.70 m/min 2.30 ft/min
BRAWOLINER [®] 3D DN 150-225	225 9"	0.30 m/min 0.98 ft/min	0.70 m/min 2.30 ft/min
BRAWOLINER [®] DN 200	200 8"	0.40 m/min 1.31 ft/min	0.70 m/min 2.30 ft/min
BRAWOLINER [®] DN 200	225 9"	0.40 m/min 1.31 ft/min	0.70 m/min 2.30 ft/min
BRAWOLINER [®] DN 200	250 10"	0.40 m/min 1.31 ft/min	0.70 m/min 2.30 ft/min
BRAWOLINER [®] XT DN 200	200 8"	0.30 m/min 0.98 ft/min	0.70 m/min 2.30 ft/min
BRAWOLINER [®] XT DN 200	225 9"	0.25 m/min 0.82 ft/min	0.60 m/min 1.97 ft/min
BRAWOLINER [®] XT DN 200	250 10"	0.20 m/min 0.66 ft/min	0.50 m/min 1.64 ft/min
BRAWOLINER [®] 3D DN 200-300	200 8"	-	0.60 m/min 1.97 ft/min

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BRAWOLINER [®] 3D DN 200-300	225 9"	-	0.50 m/min 1.64 ft/min
BRAWOLINER [®] 3D DN 200-300	250 10"	-	0.40 m/min 1.31 ft/min
BRAWOLINER [®] 3D DN 200-300	300 12"	-	0.30 m/min 0.98 ft/min

The operation manual of the BRAWO[®] Magnavity SX system must be observed.
All data is understood to be approximate and based on experimentally determine values.