

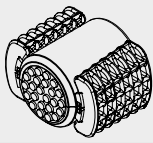
Small investment, huge benefit.

Connect, seal and fix. **Accessories for speedpipe and bundles.**

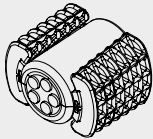
- 4.1 Connecting, sealing and fixing elements.
- 4.2 Branch supports.
- 4.3 Marking systems.
- 4.4 Protective elements.
- 4.5 House lead-ins.
- 4.6 Tools.

4.1 Connecting, sealing and fixing elements. Small-scale investment, huge benefit.

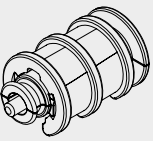
A small investment increases the durability and safety of your fibre optic network. Connecting, sealing and fixing of speedpipe duct systems.



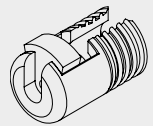
4.1.1 Divisible seals for SRV-G tc.



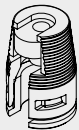
4.1.2 Divisible seals for in-duct use, SRV and SRV-G.



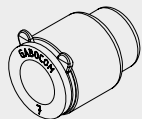
4.1.3 Divisible seals for speedpipe.



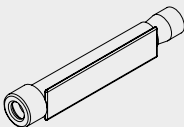
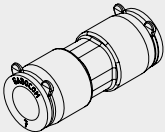
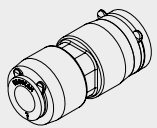
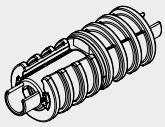
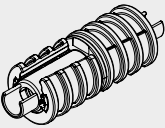
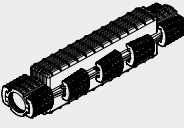
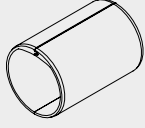
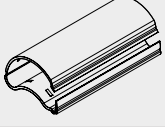
4.1.4 Divisible seals micro.



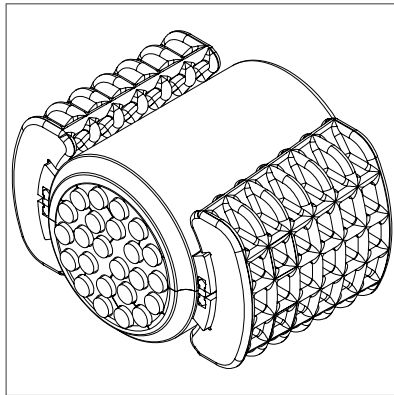
4.1.5 Divisible seals EZA-t mini.



4.1.6 End-stops transparent permanent.

	4.1.7 Identification labels with microduct end-caps.
	4.1.8 Transparent permanent connectors.
	4.1.9 Transparent permanent reducers.
	4.1.10 Divisible connectors.
	4.1.11 Divisible connectors with gas-stop.
	4.1.12 Bundle connectors.
	4.1.13 Inside stiffeners.
	4.1.14 (Double-) outside stiffeners.

4.1.1 Divisible seals for SRV-G tc.



Divisible seals EZA-t 24x7



speedpipe bundles ground SRV-G tc with EZA-t for sealing.

SEALING SPEEDPIPE BUNDLES GROUND.

Sealing speedpipe bundles under ground with divisible seals, adjusted to all SRV-G tc: due to the variable gaskets bundles remain clean, dry and operational over decades. The divisible elements fix speedpipe subduct solutions against temperature-affected length modifications.

Features and benefits

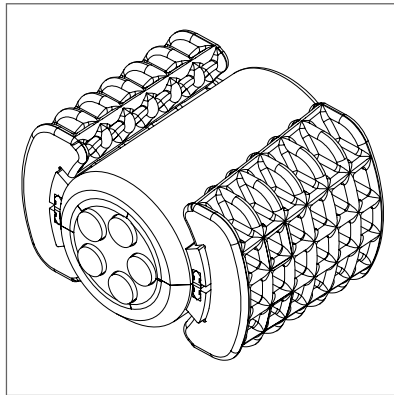
- divisible
- reusable
- gas- and water-tight up to 0.5 bar



Type	Applications	Colour	Item no.
EZA-t_3x12	3 speedpipe Ø 12	Black (BK)	1237
EZA-t_3x14	3 speedpipe Ø 14	Black (BK)	1273
EZA-t_3x16	3 speedpipe Ø 16	Black (BK)	1905
EZA-t_3x20	3 speedpipe Ø 20	Black (BK)	1906
EZA-t_4x14	4 speedpipe Ø 14	Black (BK)	1857
EZA-t_4x16	4 speedpipe Ø 16	Black (BK)	1278
EZA-t_4x20	4 speedpipe Ø 20	Black (BK)	1282
EZA-t_5x14	5 speedpipe Ø 14	Black (BK)	1277
EZA-t_7x7	7 speedpipe Ø 7	Black (BK)	1236
EZA-t_7x10	7 speedpipe Ø 10	Black (BK)	1268
EZA-t_7x12	7 speedpipe Ø 12	Black (BK)	1591
EZA-t_7x14	7 speedpipe Ø 14	Black (BK)	1280
EZA-t_7x16	7 speedpipe Ø 16	Black (BK)	1281
EZA-t_8x7+1x12	8 speedpipe Ø 7 1 speedpipe Ø 12	Black (BK)	1589
EZA-t-12x7	12 speedpipe Ø 7	Black (BK)	1904
EZA-t_12x7+1x14	12 speedpipe Ø 7 1 speedpipe Ø 14	Black (BK)	2514
EZA-t_12x7+3x14	12 speedpipe Ø 7 3 speedpipe Ø 14	Black (BK)	2801
EZA-t_12x10	12 speedpipe Ø 10	Black (BK)	1276
EZA-t_12x12	12 speedpipe Ø 12	Black (BK)	2429
EZA-t_13x7+5x14	13 speedpipe Ø 7 5 speedpipe Ø 14	Black (BK)	4056
EZA-t_14x7	14 speedpipe Ø 7	Black (BK)	1267
EZA-t_18x7	18 speedpipe Ø 7	Black (BK)	1274
EZA-t_22x7+1x12	22 speedpipe Ø 7 1 speedpipe Ø 12	Black (BK)	1590
EZA-t_24x7	24 speedpipe Ø 7	Black (BK)	1275
EZA-t_24x7+1x14	24 speedpipe Ø 7 1 speedpipe Ø 14	Black (BK)	1279

All dimensions in mm. Subject to technical changes.

4.1.2 Divisible seals for in-duct use, SRV and SRV-G.



Divisible seals EZA-t 40 5x10



Divisible seals EZA-t seal ducts and speedpipe bundles.

SEALING SPEEDPIPE BUNDLES GROUND.

Sealing speedpipe bundles under ground with divisible seals, adjusted to all occupancy variants of PE-HD ducts: due to the variable gaskets bundles as well as protective ducts - either empty or occupied with speedpipe / cables - remain clean, dry and operational over decades. The divisible elements fix speedpipe subduct solutions against temperature-affected length modifications.

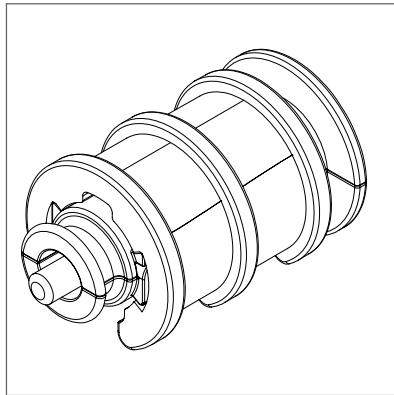
Features and benefits

- divisible
- reusable
- gas- and water-tight up to 0.5 bar

Type	Ø (D)	Applications	Cable Ø min	Cable Ø max	Colour	Item no.
EZA-t_32/K+2x10	32	0 - 2 speedpipe Ø 10	8	13.5	Black (BK)	3551
EZA-t_32/3x10	32	0 - 3 speedpipe Ø 10	-	-	Black (BK)	506
EZA-t_32/3x12	32	0 - 3 speedpipe Ø 12	-	-	Black (BK)	4078
EZA-t_32/4x10	32	0 - 4 speedpipe Ø 10	-	-	Black (BK)	4099
EZA-t_32/7x7	32	0 - 7 speedpipe Ø 7	-	-	Black (BK)	2355
EZA-t_40/K+2x7	40	0 - 2 speedpipe Ø 7	18.5	27.5	Black (BK)	1378
EZA-t_40/K+3x10	40	0 - 3 speedpipe Ø 10	8	18.5	Black (BK)	947
EZA-t_40/3x14	40	0 - 3 speedpipe Ø 14	-	-	Black (BK)	4101
EZA-t_40/3x16	40	0 - 3 speedpipe Ø 16	-	-	Black (BK)	42328
EZA-t_40/4x12	40	0 - 4 speedpipe Ø 12	-	-	Black (BK)	4083
EZA-t_40/K+5x7	40	0 - 5 speedpipe Ø 7	8	18.5	Black (BK)	42527
EZA-t_40/5x10	40	0 - 5 speedpipe Ø 10	-	-	Black (BK)	507
EZA-t_40/5x12	40	0 - 5 speedpipe Ø 12	-	-	Black (BK)	1640
EZA-t_40/7x10	40	0 - 7 speedpipe Ø 10	-	-	Black (BK)	4097
EZA-t_40/8x7+12-14	40	0 - 8 speedpipe Ø 7 0 - 1 speedpipe Ø 12 / 14	-	-	Black (BK)	42329
EZA-t_40/10x7	40	0 - 10 speedpipe Ø 7	-	-	Black (BK)	526
EZA-t_40/14x7	40	0 - 14 speedpipe Ø 7	-	-	Black (BK)	4821
EZA-t_50/K+2x7	50	0 - 2 speedpipe Ø 7	18.5	27.5	Black (BK)	1379
EZA-t_50/K+3x10	50	0 - 3 speedpipe Ø 10	16	25.5	Black (BK)	3550
EZA-t_50/3x20	50	0 - 3 speedpipe Ø 20	-	-	Black (BK)	1407
EZA-t_50/4x16	50	0 - 4 speedpipe Ø 16	-	-	Black (BK)	42330
EZA-t_50/K+5x10	50	0 - 5 speedpipe Ø 10	8	18.5	Black (BK)	3545
EZA-t_50/K+5x12	50	0 - 5 speedpipe Ø 12	8	18.5	Black (BK)	3553
EZA-t_50/5x14	50	0 - 5 speedpipe Ø 14	-	-	Black (BK)	1101
EZA-t_50/K+7x7	50	0 - 7 speedpipe Ø 7	8	18.5	Black (BK)	42125
EZA-t_50/16x7+3x12	50	0 - 7 speedpipe Ø 7 0 - 3 speedpipe Ø 12	-	-	Black (BK)	2195
EZA-t_50/7x12	50	0 - 7 speedpipe Ø 12	-	-	Black (BK)	4090
EZA-t_50/8x10	50	0 - 8 speedpipe Ø 10	-	-	Black (BK)	5698
EZA-t_50/9x12	50	0 - 9 speedpipe Ø 12	-	-	Black (BK)	5091
EZA-t_50/10x7+12-14	50	0 - 10 speedpipe Ø 7 0 - 1 speedpipe Ø 12 / 14	-	-	Black (BK)	3552
EZA-t_50/12x10	50	0 - 12 speedpipe Ø 10	-	-	Black (BK)	5085
EZA-t_50/14x7	50	0 - 14 speedpipe Ø 7	-	-	Black (BK)	497
EZA-t_50/18x7	50	0 - 18 speedpipe Ø 7	-	-	Black (BK)	42200
EZA-t_50/22x7+1x12	50	0 - 22 speedpipe Ø 7 0 - 1 speedpipe Ø 12	-	-	Black (BK)	42331
EZA-t_50/24x7	50	0 - 24 speedpipe Ø 7	-	-	Black (BK)	5080
EZA-t_63/4x20	63	0 - 4 speedpipe Ø 20	-	-	Black (BK)	1408
EZA-t_63/7x12	63	0 - 7 speedpipe Ø 12	-	-	Black (BK)	1965
EZA-t_63/7x14	63	0 - 7 speedpipe Ø 14	-	-	Black (BK)	1072
EZA-t_63/7x16	63	0 - 7 speedpipe Ø 16	-	-	Black (BK)	1199
EZA-t_63/24x7+14-16	63	0 - 24 speedpipe Ø 7 0 - 1 speedpipe Ø 14 / 16	-	-	Black (BK)	1071

All dimensions in mm. Subject to technical changes.

4.1.3 Divisible seals for speedpipe.



Divisible seals EZA-t 10



Divisible seals EZA-t are suitable for sealing unoccupied and occupied speedpipe.

SEALING WITH OR WITHOUT FIBRE OPTIC CABLE.

Tensile and reusable: the divisible elements are sealing occupied or empty speedpipe against gas and water up to 0.5 bar. The integrated safety valve opens before a blowing in pressure of 10 bar has been reached. They can be installed fast and easy and without special equipment.

Features and benefits

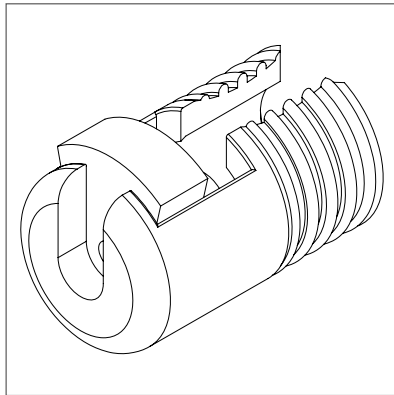
- gas- and water-tight up to 0.5 bar
- inclusive guiding for fibre optic cables
- reusable
- sealing empty and occupied speedpipe



Type	Ø (D)	Cable Ø min	Cable Ø max	Colour	Item no.
EZA-t_7/0.8-2.5	7	0.8	2.5	Black (BK)	4136
EZA-t_7/2.0-4.0	7	2	4	Black (BK)	4135
EZA-t_10/0.8-2.5	10	0.8	2.5	Black (BK)	3477
EZA-t_10/1.8-3.5	10	1.8	3.5	Black (BK)	2914
EZA-t_10/3.0-5.0	10	3	5	Black (BK)	1348
EZA-t_10/5.0-6.5	10	5	6.5	Black (BK)	481
EZA-t_12/1.8-3.5	12	1.8	3.5	Black (BK)	2515
EZA-t_12/3.0-5.0	12	3	5	Black (BK)	1352
EZA-t_12/5.0-6.5	12	5	6.5	Black (BK)	1360
EZA-t_12/6.5-8.0	12	6.5	8	Black (BK)	1365
EZA-t_12/7.5-8.5	12	7.5	8.5	Black (BK)	3478
EZA-t_14/3.0-5.0	14	3	5	Black (BK)	10341
EZA-t_14/5.0-6.5	14	5	6.5	Black (BK)	5405
EZA-t_14/6.5-8.0	14	6.5	8	Black (BK)	5414
EZA-t_14/8.0-9.5	14	8	9.5	Black (BK)	1003
EZA-t_16/3.0-5.0	16	3	5	Black (BK)	3479
EZA-t_16/5.0-6.5	16	5	6.5	Black (BK)	3480
EZA-t_16/6.5-8.0	16	6.5	8	Black (BK)	42324
EZA-t_16/8.0-9.5	16	8	9.5	Black (BK)	42325
EZA-t_16/9.5-11.0	16	9.5	11	Black (BK)	42326
EZA-t_20/5.0-6.5	20	5	6.5	Black (BK)	3481
EZA-t_20/6.5-8.0	20	6.5	8	Black (BK)	3473
EZA-t_20/8.0-10.5	20	8	10.5	Black (BK)	1350
EZA-t_20/10.5-13.0	20	10.5	13	Black (BK)	1353

All dimensions in mm. Subject to technical changes.

4.1.4 Divisible seals micro.



Divisible seals EZA-t 10 micro



Divisible seals EZA-t 7 micro are suitable for sealing speedpipes occupied by cables.

COMPLETES OUR PROOFEN EZA-T.

With the separable single-pull seal, micro pipes can be quickly and safely sealed against gas- and water. Optimum use of limited space: The perfect supplement for tight space conditions in cable distributors. The sealing rubber is simply placed over the fibre optic cable, afterwards it is fixed with the plastic housing and the complete EZA-t micro is pushed onto the speedpipe. Individual sealing areas can easily be distinguished by the different colors of the sealing rubber.

Features and benefits

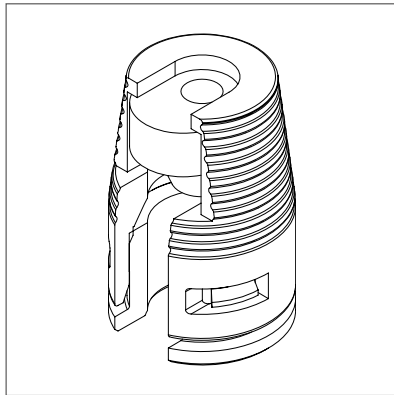
- gas- and water-tight up to 0.5 bar
- tool-less installation
- optimally suited for retrofitting
- perfect supplement for tight space conditions in cable distributors



Type	Ø (D)	Cable Ø min	Cable Ø max	Colour	Item no.
EZA-t_5/0.5-1.0_micro	5	0.5	1	Red (RD), Black (BK)	3882
EZA-t_5/1.0-1.5_micro	5	1.0	1.5	Green (GN), Black (BK)	3883
EZA-t_5/1.5-1.8_micro	5	1.5	1.8	Blue (BU), Black (BK)	3884
EZA-t_5/1.9-2.2_micro	5	1.9	2.2	Yellow (YE), Black (BK)	3885
EZA-t_5/2.3-2.5_micro	5	2.3	2.5	White (WH), Black (BK)	3886
EZA-t_7/0.5-1.0_micro	7	0.5	1	Red (RD), Black (BK)	3860
EZA-t_7/1.0-1.5_micro	7	1	1.5	Green (GN), Black (BK)	3861
EZA-t_7/1.5-2.0_micro	7	1.5	2	Blue (BU), Black (BK)	3862
EZA-t_7/2.0-2.5_micro	7	2	2.5	Yellow (YE), Black (BK)	3863
EZA-t_7/2.5-3.0_micro	7	2.5	3	White (WH), Black (BK)	3864
EZA-t_8/0.5-1.0_micro	8	0.5	1	Red (RD), Black (BK)	3872
EZA-t_8/1.0-1.5_micro	8	1	1.5	Green (GN), Black (BK)	3873
EZA-t_8/1.5-2.0_micro	8	1.5	2	Blue (BU), Black (BK)	3879
EZA-t_8/2.0-2.5_micro	8	2	2.5	Yellow (YE), Black (BK)	3880
EZA-t_8/2.5-3.0_micro	8	2.5	3	White (WH), Black (BK)	3881
EZA-t_10/1.5-2.0_micro	10	1.5	2	Blue (BU), Black (BK)	3865
EZA-t_10/2.0-2.5_micro	10	2	2.5	Yellow (YE), Black (BK)	3866
EZA-t_10/2.5-3.0_micro	10	2.5	3	White (WH), Black (BK)	3868
EZA-t_10/3.0-3.5_micro	10	3	3.5	Grey (GY), Black (BK)	3869
EZA-t_10/3.5-4.0_micro	10	3.5	4	Brown (BN), Black (BK)	3870
EZA-t_10/4.0-4.5_micro	10	4	4.5	Violet (VT), Black (BK)	3871

All dimensions in mm. Subject to technical changes.

4.1.5 Divisible seals EZA-t mini.



EZA-t 12 mini



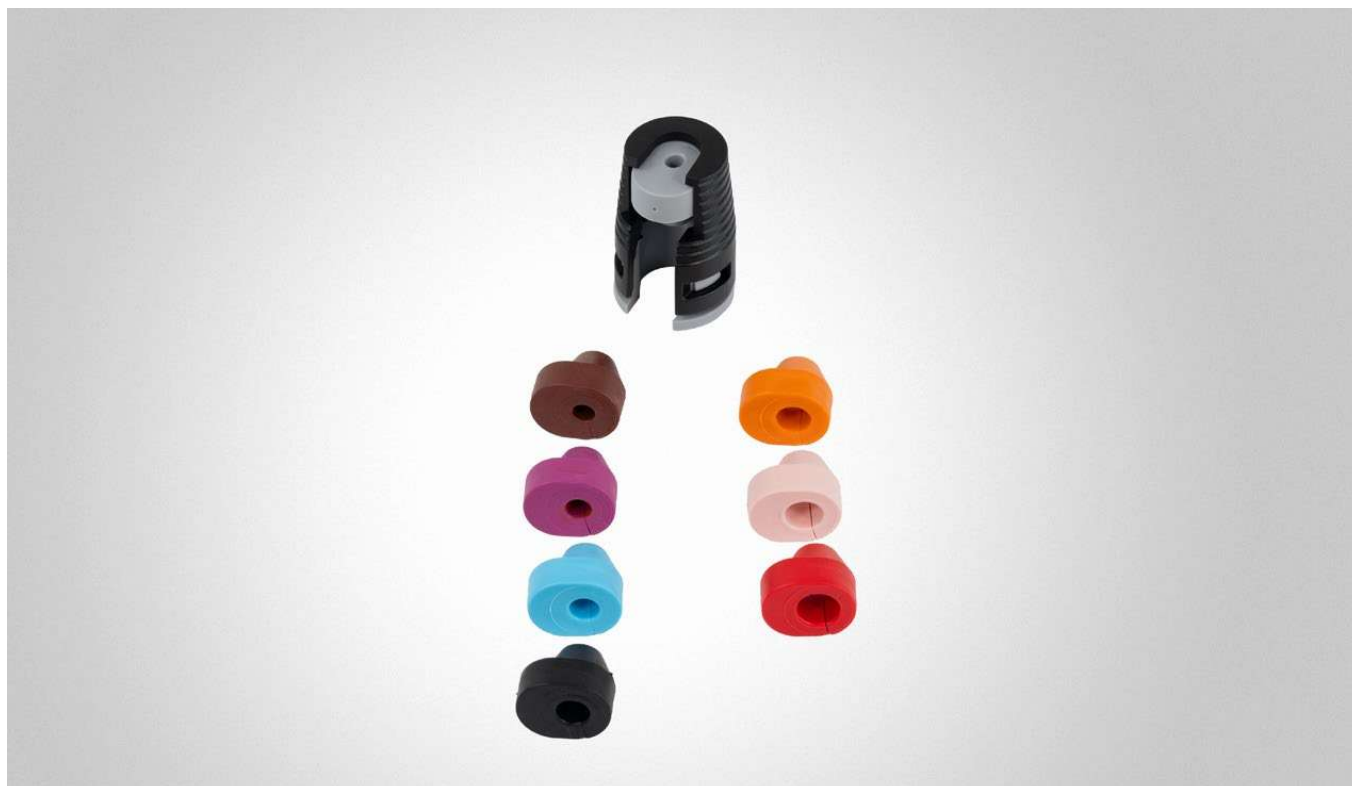
Divisible seals EZA-t 12 mini

QUICK AND TOOL-LESS INSTALLATION.

The tensile, gas and watertight sealing elements EZA-t mini are suitable for sealing speedpipe ground with cable / fiber optic cable. Due to their compact design, they have been specially developed for limited space and hard-to-reach places. Due to the slotted design, subsequent installation is also possible. The different coloured rubber sealings make it easy to differentiate between the individual sealing areas.

Features and benefits

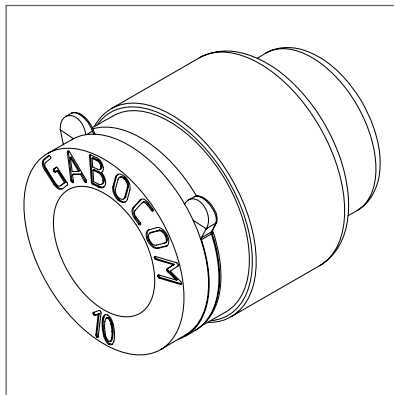
- gas- and water-tight up to 0.5 bar
- reusable
- tool-less installation
- optimally suited for retrofitting
- perfect supplement for tight space conditions in cable distributors
- not suitable for direct burial



Type	Ø (D)	Cable Ø min	Cable Ø max	Colour	Item no.
EZA-t_12/3.0-3.5_mini	12	3	3.5	Grey (GY), Black (BK)	4280
EZA-t_12/3.5-4.0_mini	12	3.5	4	Brown (BN), Black (BK)	4281
EZA-t_12/4.0-4.5_mini	12	4	4.5	Violet (VT), Black (BK)	4282
EZA-t_12/4.5-5.0_mini	12	4.5	5	Turquoise (TQ), Black (BK)	4283
EZA-t_12/5.0-5.5_mini	12	5	5.5	Black (BK)	4284
EZA-t_12/5.5-6.0_mini	12	5.5	6	Orange (OG), Black (BK)	4285
EZA-t_12/6.0-6.5_mini	12	6	6.5	Pink (PK), Black (BK)	4286
EZA-t_12/6.5-7.0_mini	12	6.5	7	Red (RD), Black (BK)	4287

All dimensions in mm. Subject to technical changes.

4.1.6 End-stops transparent permanent.



End-stops ES 10



Transparent permanent end-stops ES seal speedpipe gas- and water-tight.

Accessories

LOCK SPEEDPIPE ENDS SECURELY AND RE-OPEN THEM EASILY.

Tensile and buriable: The cover of the speedpipe ends protects the entire duct system against the penetration of water, dirt and gas. The end plug itself is gas- and water-tight up to 0.5 bar. Mounted on the speedpipe by simply sliding it up, the end plug as easily is removed by opening the locking ring.

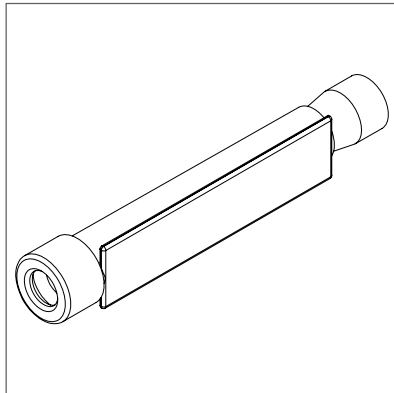
Features and benefits

- gas- and water-tight up to 0.5 bar
- resistant to tensile and easily and quickly installed
- applicable for direct burying

Type	Ø (D)	Colour	Item no.
ES_7	7	Transparent (CL)	2282
ES_10	10	Transparent (CL)	2283
ES_12	12	Transparent (CL)	2284
ES_14	14	Transparent (CL)	2285
ES_16	16	Transparent (CL)	2286
ES_20	20	Transparent (CL)	2287

All dimensions in mm. Subject to technical changes.

4.1.7 Identification labels with microduct end-caps.



Identification labels with microduct end-caps KmR 10



Identification labels with end-caps KmR are used for labeling speedpipe.

MARKING AND SEALING OF SPEEDPIPE.

Sealing and identifying in just one step: empty speedpipe - without any fibre optics - are sealed gas- and water-tight up to 0.5 bar due to the duct plug. Before the blowing-in process the protective cap is pulled off and the identification label remains on the end of the speedpipe in the distributor.

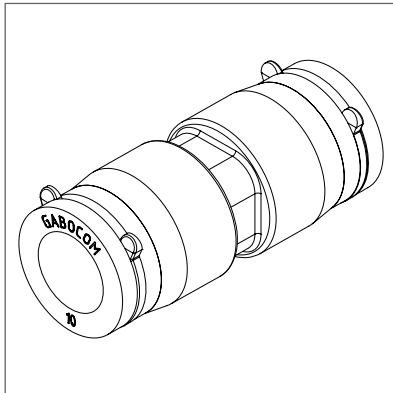
Features and benefits

- gas- and water-tight up to 0.5 bar
- easily and quickly installed

Type	Ø (D)	Colour	Item no.
KmR_7	7	White (WH), Orange (OG)	1094
KmR_10	10	White (WH), Pink (PK)	998
KmR_12	12	White (WH), Green-Yellow (GNYE)	1059
KmR_14	14	White (WH), Orange (OG)	1150
KmR_16	16	White (WH), Turquoise (TQ)	1010
KmR_20	20	White (WH), Pink (PK)	4043

All dimensions in mm. Subject to technical changes.

4.1.8 Transparent permanent connectors.



Transparent permanent connectors
DSM 10



Transparent permanent connectors DSM connect speedpipe.

Accessories

CONNECT TWO SPEEDPIPE - ALSO DIRECTLY BURIED.

Transparent permanent connectors are tensile, directly buriable and pressure-tight up to 15 bar (tested up to 30 minutes). By means of the transparent connectors, two speedpipe of the same type can be connected. The high range that is reached when blowing in fibre optic cables into speedpipe remains unaffected. Quickly and easily assembled, the accessory can be separated from the speedpipe by removing the locking ring.

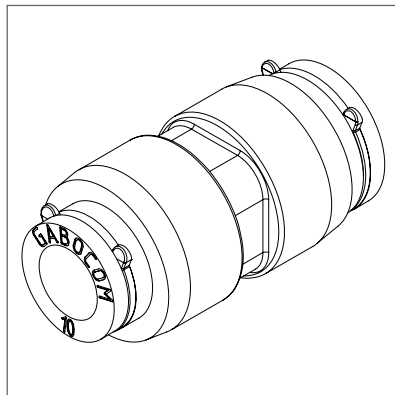
Features and benefits

- gas- and water-tight up to 0.5 bar
- pressure-tight up to 15 bar (tested up to 30 minutes)
- resistant to tensile and easily and quickly installed
- applicable for direct burying

Type	Ø (D)	Colour	Item no.
DSM_7_transparent_permanent	7	Transparent (CL)	2272
DSM_10_transparent_permanent	10	Transparent (CL)	2273
DSM_12_transparent_permanent	12	Transparent (CL)	2274
DSM_14_transparent_permanent	14	Transparent (CL)	2275
DSM_16_transparent_permanent	16	Transparent (CL)	2276
DSM_20_transparent_permanent	20	Transparent (CL)	2277

All dimensions in mm. Subject to technical changes.

4.1.9 Transparent permanent reducers.



Reducers RSM 12-10



Transparent permanent reducers RSM connect speedpipe with the same inner diameter.

TWO SPEEDPIPE WITH THE SAME INNER DIAMETER CAN BE CONNECTED.

Transparent permanent reducers are tensile, directly buriable and pressure-tight up to 15 bar (tested up to 30 minutes). By means of the transparent reducers two speedpipe with the same inner diameter can be connected. The high range that is reached when blowing in fibre optic cables into speedpipe remains unaffected. Quickly and easily assembled, the accessory can be separated from the speedpipe by removing the locking ring.

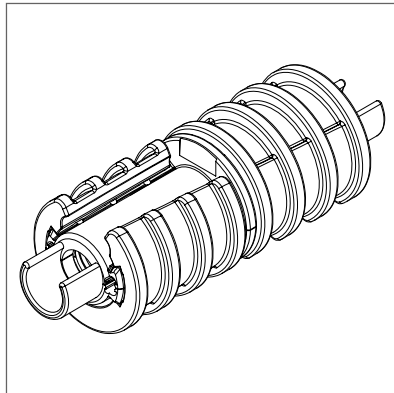
Features and benefits

- gas- and water-tight up to 0.5 bar
- pressure-tight up to 15 bar (tested up to 30 minutes)
- resistant to tensile and easily and quickly installed
- applicable for direct burying

Type	Ø (D)	Ø (D2)	Colour	Item no.
RSM_10-7	10	7	Transparent (CL)	2278
RSM_12-10	12	10	Transparent (CL)	2279
RSM_14-12	14	12	Transparent (CL)	2280
RSM_16-14	16	14	Transparent (CL)	2281
RSM_20-16	20	16	Transparent (CL)	3842

All dimensions in mm. Subject to technical changes.

4.1.10 Divisible connectors.



Divisible connector EBM 10



Divisible connectors EBM connect occupied speedpipe.

SAVING TIME BLOWING FIBRE OPTIC CABLE INTO SPEEDPIPE.

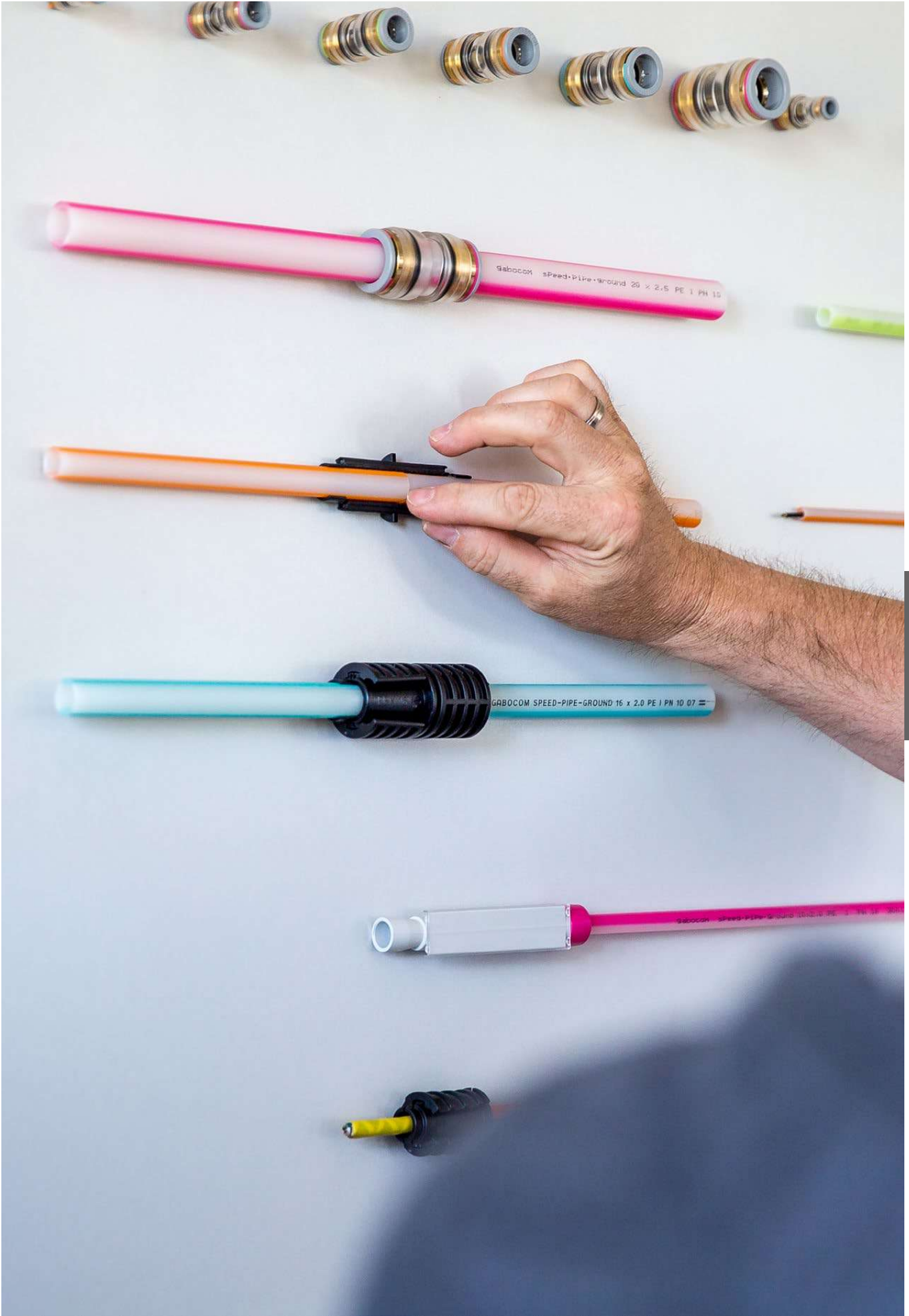
Connectors for the continuation of the blowing-in processes: as soon as the maximum blowing-in length has been reached the speedpipe is opened and the blowing-in process is continued in exactly this position. The divisible connectors permanently connect the occupied speedpipe up to 0.5 bar and - for jetting in the complete length - gas- and water-tight up to 10 bar for 30 minutes.

Features and benefits

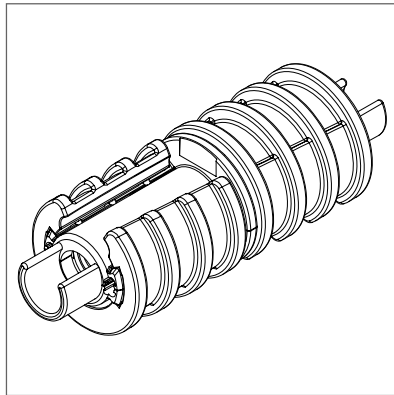
- permanent gas- and water-tight up to 0.5 bar
- for a duration of 30 minutes pressure-tight up to 10 bar
- resistant to tensile for all current practical applications
- applicable for direct burying
- easily and quickly installed

Type	Ø (D)	Colour	Item no.
EBM_7	7	Black (BK)	10753
EBM_10	10	Black (BK)	10786
EBM_12	12	Black (BK)	10787
EBM_14	14	Black (BK)	10788
EBM_16	16	Black (BK)	1065
EBM_20	20	Black (BK)	2516

All dimensions in mm. Subject to technical changes.



4.1.11 Divisible connectors with gas-stop.



Divisible connector with gas-stop
EBM-GS 10



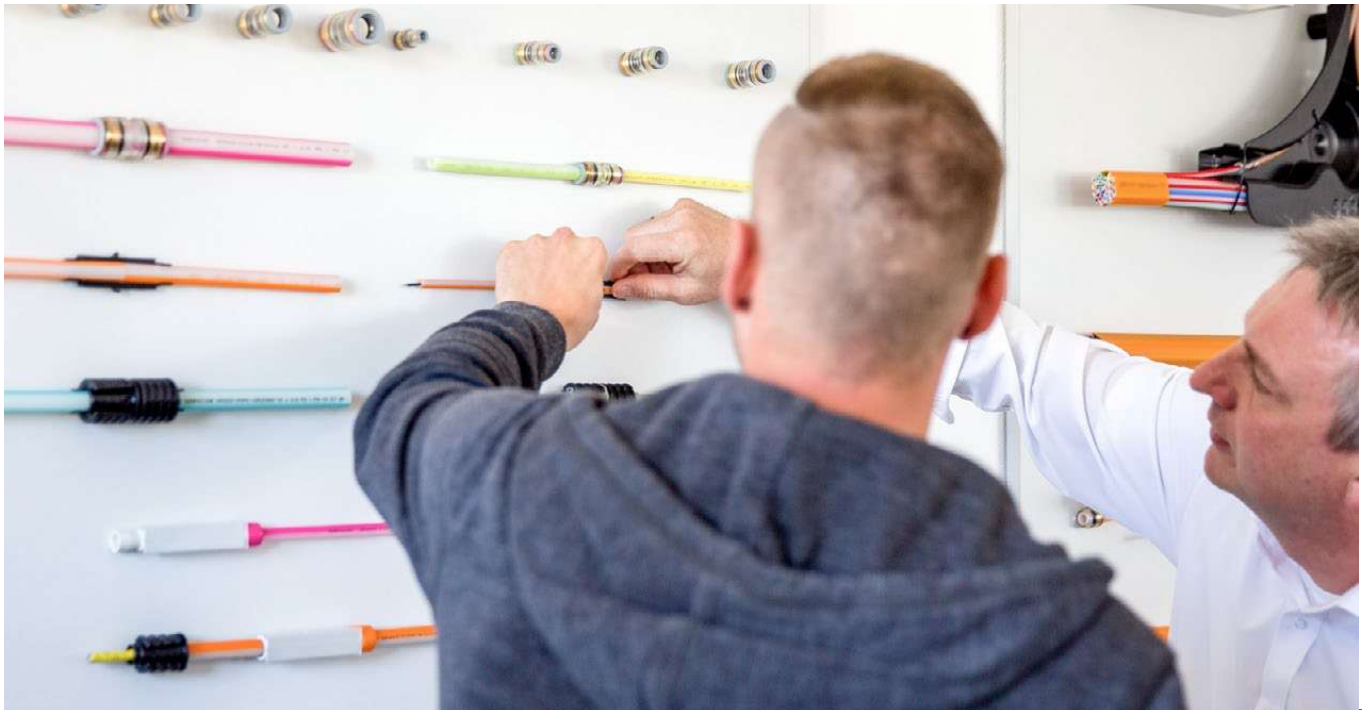
Divisible connectors with gas-stop EBM-GS connect occupied speedpipe.

SEALING EMPTY AND OCCUPIED SPEEDPIPE.

The divisible connector with gas-stop connects already occupied speedpipe. Especially ahead of house lead-ins and ground connectors the integrated gas-stop pays off: It serves for the gas- and water-tight sealing of speedpipe up to a pressure of 0.5 bar also in longitudinal direction. Buildings and sleeves remain dry and safe.

Features and benefits

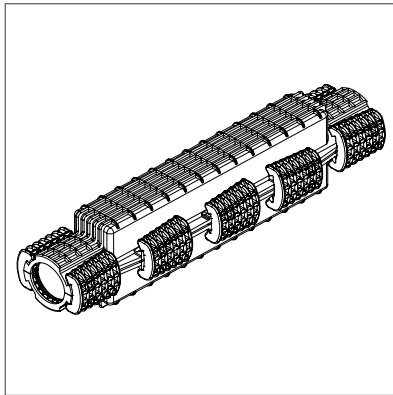
- sealing speedpipe against gas and water up to 0.5 bar (also longitudinally)
- resistant to tensile for all current practical applications
- applicable for direct burying
- easily and quickly installed



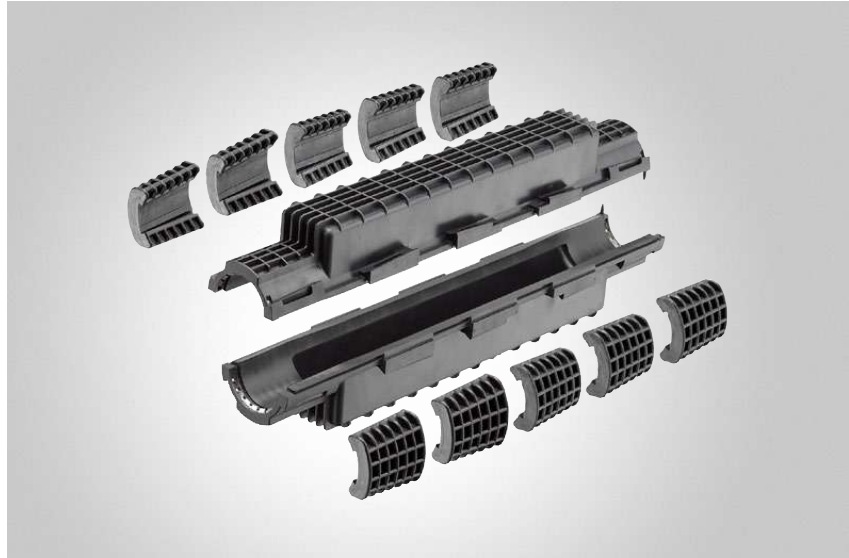
Type	Ø (D)	Ø (D2)	Cable Ø min	Cable Ø max	Colour	Item no.
EBM-GS_7-0.8-4.0	7	-	0.8	4	Black (BK)	42415
EBM-GS_10-1.8-3.5	10	-	1.8	3.5	Black (BK)	42450
EBM-GS_10-3.0-5.0	10	-	3	5	Black (BK)	42451
EBM-GS_10-5.0-6.5	10	-	5	6.5	Black (BK)	42452
EBM-GS_12-3.0-5.0	12	-	3	5	Black (BK)	42447
EBM-GS_12-5.0-6.5	12	-	5	6.5	Black (BK)	42448
EBM-GS_12-6.5-8.0	12	-	6.5	8	Black (BK)	42449
EBM-GS_12-10-5.0-6.5	12	10	5	6.5	Black (BK)	1315
EBM-GS_14-5.0-6.5	14	-	5	6.5	Black (BK)	42445
EBM-GS_14-6.5-8.0	14	-	6.5	8	Black (BK)	42446
EBM-GS_16-6.5-8.0	16	-	6.5	8	Black (BK)	1068
EBM-GS_16-8.0-9.5	16	-	8	9.5	Black (BK)	1069
EBM-GS_16-9.5-11.0	16	-	9.5	11	Black (BK)	1070

All dimensions in mm. Subject to technical changes.

4.1.12 Bundle connectors.



speedpipe bundle connectors SRV-M



speedpipe bundle connectors SRV-M for repairing light damage.

CONNECTION OF SPEEDPIPE BUNDLES FOR FIBRE OPTICS IN THE TRENCH - OR AT THE TRANSITION FROM DUCTS TO DIRECT BURYING.

The SRV-M and SRV-M MAXI serve for the pressure-tight protection of the connecting points of two buried speedpipe bundles against the penetration of gas and water through the duct gaps. In case of an in-duct solution with jacket pipes up to Ø 63 mm or at the transition to a buried bundle, the elements connect the complete duct system gas-, pressure- and water-tight as well. The split SRV-M MAXI for SRV-G tc are suitable for the pressure-tight connection of speedpipe bundles ground SRV-G tc.

Features and benefits

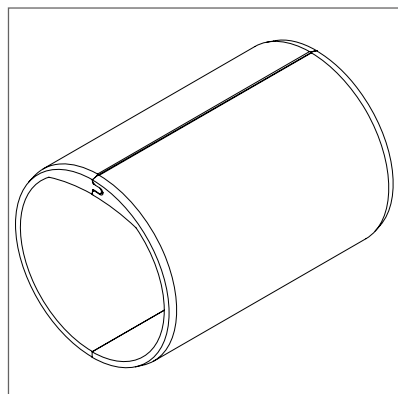
- gas- and water-tight up to 0.5 bar
- reusable and applicable for direct burying
- to connect the speedpipe bundles ground SRV-G inside stiffeners SHi needed on both sides



Type	Ø (D)	Ø (D2)	Applications	Length (L)	Colour	Item no.
SRV-M_MAXI_fuer_ SRV-G_tc_Gr._1	-	-	Application for SRV-G 7×7 tc, SRV-G 8×7 + 1×12 tc, SRV-G 12×7 tc, SRV-G 12×7 + 1×14 tc, SRV-G 12×7 + 3×14 tc, SRV-G 14×7 tc, SRV-G 18×7 tc, SRV-G 22×7 + 1×12 tc, SRV-G 24×7 tc, SRV-G 24×7 + 1×14 tc, SRV-G 7×10 tc, SRV-G 12×10 tc, SRV-G 12×10 + 1×16 tc, SRV-G 14×10 tc, SRV-G 3×12 tc, SRV-G 7×12 tc, SRV-G 3×14 tc, SRV-G 4×14 tc, SRV-G 5×14 tc, SRV-G 7×14 tc, SRV-G 7×14 + 1×20 tc, SRV-G 3×16 tc, SRV-G 4×16 tc, SRV-G 6×16 tc, SRV-G 7×16 tc, SRV-G 3×20 tc	550	Black (BK)	1704
SRV-M_MAXI_fuer_ SRV-G_tc_Gr._2	-	-	Application for SRV-G 12×12 tc, SRV-G 12×12 + 1×16 tc, SRV-G 10×14 tc, SRV-G 4×20 tc, SRV-G 5×20 tc	550	Black (BK)	2321
SRV-M_40	40	-	Application for tubes with max Ø 40 cm	455	Black (BK)	4853
SRV-M_50	50	-	Application for tubes with max Ø 50 cm	455	Black (BK)	4852
SRV-M_50_MAXI	50	-	Application for tubes with max Ø 50 cm	550	Black (BK)	1190
	50	-	Application for tubes with max Ø 50 cm	550	Black (BK)	1451
SRV-M_63_MAXI	63	-	Application for tubes with max Ø 63 cm	550	Black (BK)	1191
SRV-M_63-50_ MAXI	63	50	Application for tubes with max Ø 63-50 cm	550	Black (BK)	1358

All dimensions in mm. Subject to technical changes.

4.1.13 Inside stiffener.



Inside stiffener SHi 50



Stiffeners SHi for stiffening the outer sheath before mounting the EZA-t or bundle connector.

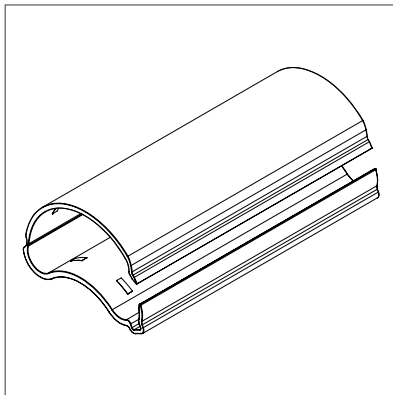
PROTECTION AND STIFFENING - ALL IN ONE.

Before assembling the divisible seals or bundle connectors the flexible jacket pipe of the speedpipe bundle SRV and SRV-G is strengthened with a stiffener. A round duct with a standardised diameter is the result. The clamping rings of the sealing elements gain traction without damaging internal speedpipe.

Type	Ø (D)	Colour	Item no.
SHi_32	32	Black (BK)	4857
SHi_40	40	Black (BK)	4863
SHi_50	50	Black (BK)	4547
SHi_63	63	Black (BK)	1066

All dimensions in mm. Subject to technical changes.

4.1.14 (Double-) outside stiffener.



Outside stiffener SHa



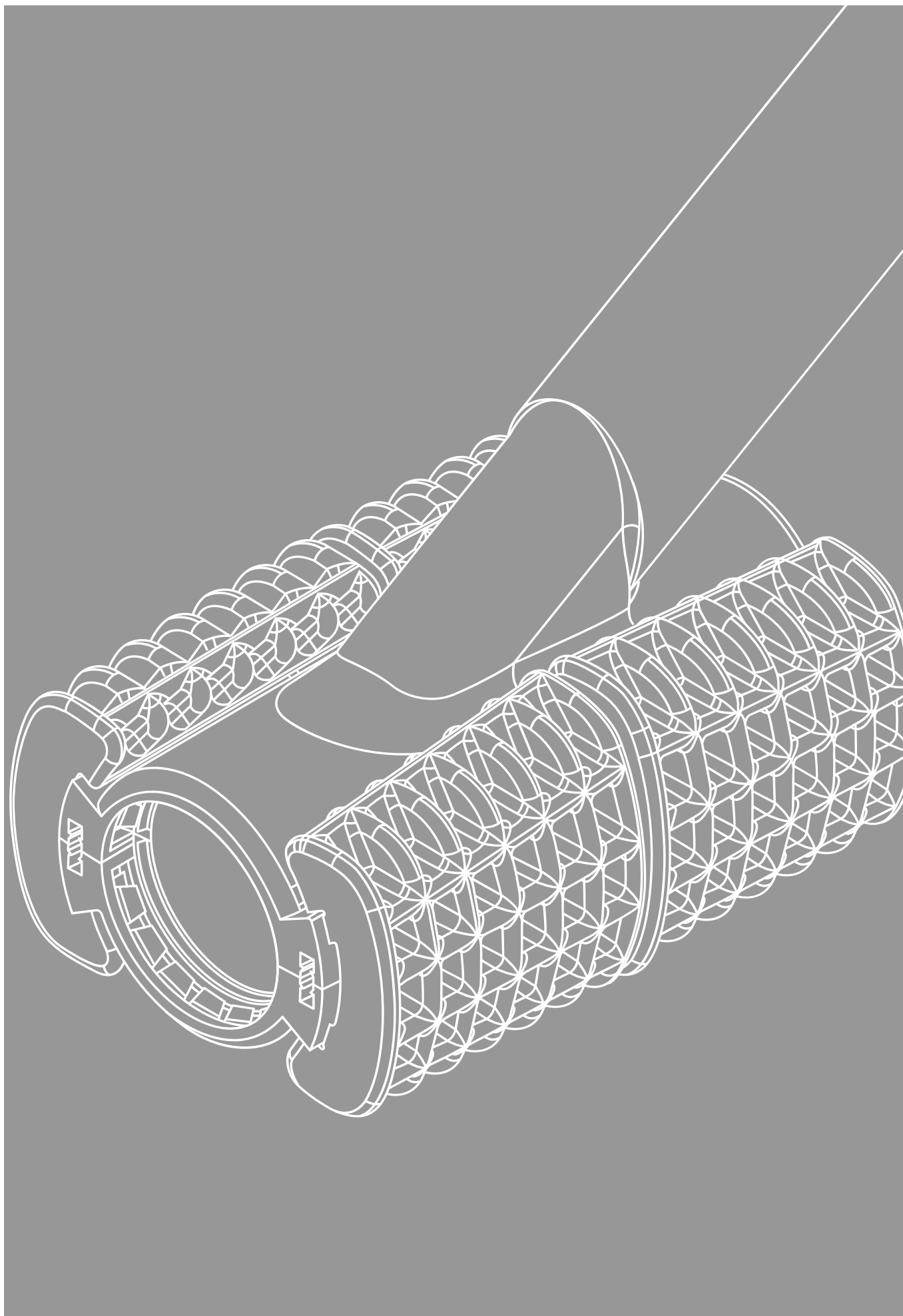
(Double-) outside stiffeners SHa and DSHa are used for stiffening the outer sheath.

PROTECTION AND STIFFENING FUNCTION ALL IN ONE.

The split outer stiffener SHa is used for outer stiffening of the jacket of the speedpipe SRV 50/8x10. The split double stiffener DSHa is used for the outer stiffening of the jackets of two SRV 50/8x10. Both versions are required in a protective pipe/cable protection pipe before the ADE/TDUX sealing element is installed. The accessories prevent the pressure of the TDUX from changing the shape of the internal speedpipe (ovalization). Fibre optic cables can still be blown in.

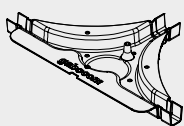
Type	Ø (D)	Colour	Item no.
DSHa_50	50	Black (BK)	4565
SHa_50	50	Black (BK)	4584

All dimensions in mm. Subject to technical changes.

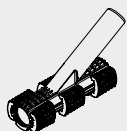


4.2 Branch supports. For direct burying.

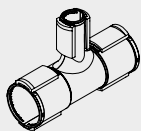
Avoid subsequent head holes: The branch supports lead you to the customer or distribution box in a safe bend.



4.2.1 Branch supports.

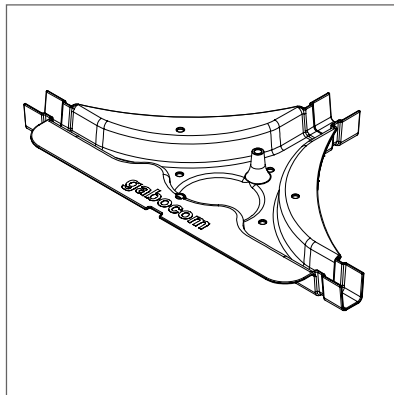


4.2.2 Split duct tees.



4.2.3 Half-shell branch.

4.2.1 Branch supports.



T-Branch Support TBS



Branch supports LBS and TBS with speedpipe bundle SRV-G tc

Accessories

BRANCH-OFF SPEEDPIPE FROM A BUNDLE WITHOUT ANY RISK.

Single speedpipe ground can be branched off the speedpipe bundle ground in a safe bend to the customer or to the distribution box by using the T-branch-support TBS or the L-branch support LBS. The branch supports are connected with the speedpipe bundle ground and the branching speedpipe ground by means of cable straps. The use of a marking system like the markerpeg or the ball marker facilitates the subsequent localisation of the branch.

Features and benefits

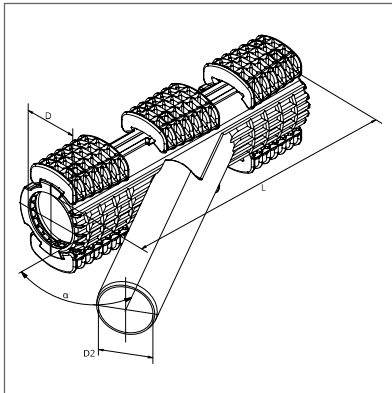
- can be fitted with a ball marker or markerpeg
- minimum bending radius of the speedpipe is automatically maintained, ensuring safe blowing-in

Type	Colour	Item no.
TBS	Black (BK)	2423
LBS	Black (BK)	2330

All dimensions in mm. Subject to technical changes.



4.2.2 Split duct tees.



Branches HRMA



Branch off speedpipe or cable from a PE/PVC pipe with HRMA branches.

BRANCH OFF SAFELY.

Apertures of existing duct systems for branching off standard cables or internal speedpipe are closed safely and simply. Thus no manhole is necessary any more for branching off from a duct system. Install the branches wherever you want to minimize or optimize your routes. Due to the mechanical protection of the branch point you receive optimum results at blowing in fibre optic cables into the internal speedpipe even after decades.

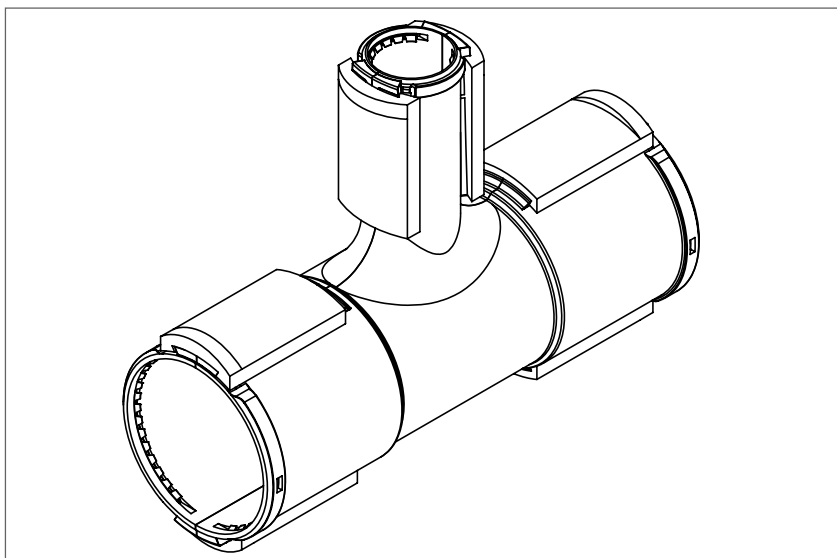
Features and benefits

- gas- and water-tight up to 0.5 bar
- no interference with the other speedpipe or cables or the ongoing data transmissions during the interventions

Type	Ø (D)	Ø (D2)	Angle	Length (L)	Colour	Item no.
HRMA_32/32-30°	32	32	30 °	261	Black (BK)	42174
HRMA_40/32-30°	40	32	30 °	125	Black (BK)	1034
HRMA_40/40-90°	40	40	90 °	261	Black (BK)	10315
HRMA_50/32-30°	50	32	30 °	125	Black (BK)	486
HRMA_50/50-30°	50	50	30 °	261	Black (BK)	4621
HRMA_50/50-90°	50	50	90 °	261	Black (BK)	983
HRMA_110/50-30°-BK	110	50	30 °	300	Black (BK)	288

All dimensions in mm. Subject to technical changes.

4.2.3 Half-shell branch.



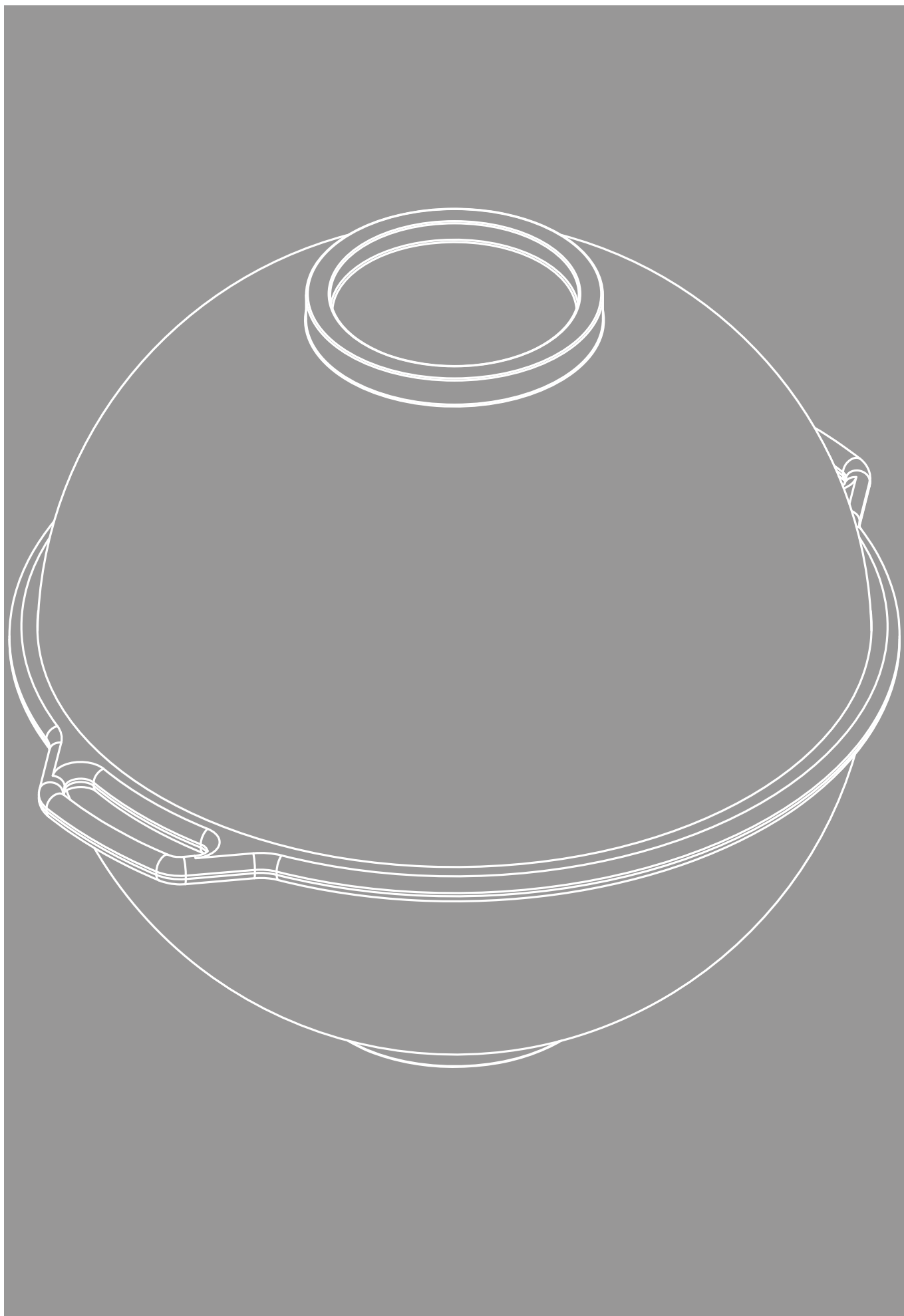
Half-shell branch HSA

EASY AND FAST ASSEMBLY.

The half shell branch HSA is used for passing through and branching cables. It is divided along its longitudinal axis and is tensile in the master as well as in the branching direction. The fitting is sand-tight and can easily and quickly be installed.

Type	Ø (D)	Ø (D2)	Angle	Length (L)	Colour	Item no.
HSA_110/50-90°	110	50	90 °	350	Black (BK)	12233

All dimensions in mm. Subject to technical changes.



4.3 Marking systems. For direct burying.

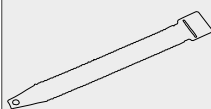
Using a marking system makes it easy to find branches again. Marking systems can be used to locate routes and branches.



4.3.1 Markerpeg.

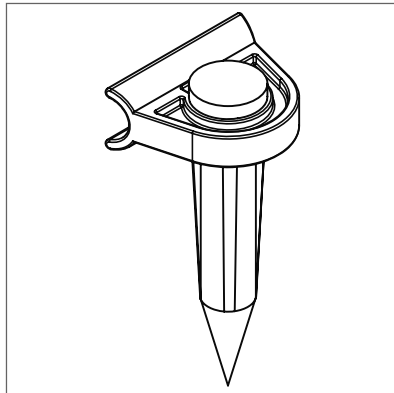


4.3.2 Ball marker.



4.3.3 Identification tapes.

4.3.1 Markerpeg.



Markerpeg



Markerpeg with holder for precise and fast locating.

Accessories

MAKE IT EASIER TO FIND EXISTING PIPE ROUTES.

The markerpeg can be placed along the track or at a breakout that needs to be found. The markerpeg should be put vertically in the ground. It can be mounted to the duct or microduct with the included holder.

Features and benefits

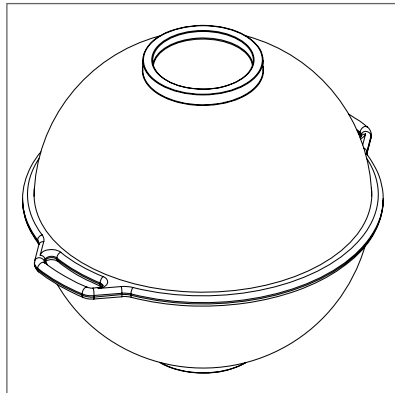
- locatability: vertical 1,5 - 2m; 45° -1m
- frequency: 101,4 kHz
- temperature range from -10 to 25 °C

Type	Applications	Colour	Item no.
Ortungsstift_mit_Halter	Markerpeg	Orange (OG), Red (RD)	2424

All dimensions in mm. Subject to technical changes.



4.3.2 Ball marker.



Marker Ball



Marker ball for precise and quick location.

Accessories

PRECISE LOCATION OF ROUTE JUNCTIONS.

Ball markers are buried at the most important points (e.g. house junctions, joints, etc.) when laying speedpipe or bundles along the route and can later be located quickly and precisely.

Features and benefits

- installation depth: 1.5 m
- self-levelling design for precise horizontal positioning
- passive antenna in a water-repellent polyethylene shell
- temperature range from -20 to 50 °C
- no external power supply needed

Type	Applications	Colour	Item no.
Kugelmarker	Marker ball	Orange (OG)	3484

All dimensions in mm. Subject to technical changes.

4.3.3 Identification tapes.



Identification tapes indicate buried speedpipe.

IDENTIFY SPEEDPIPE BUNDLES.

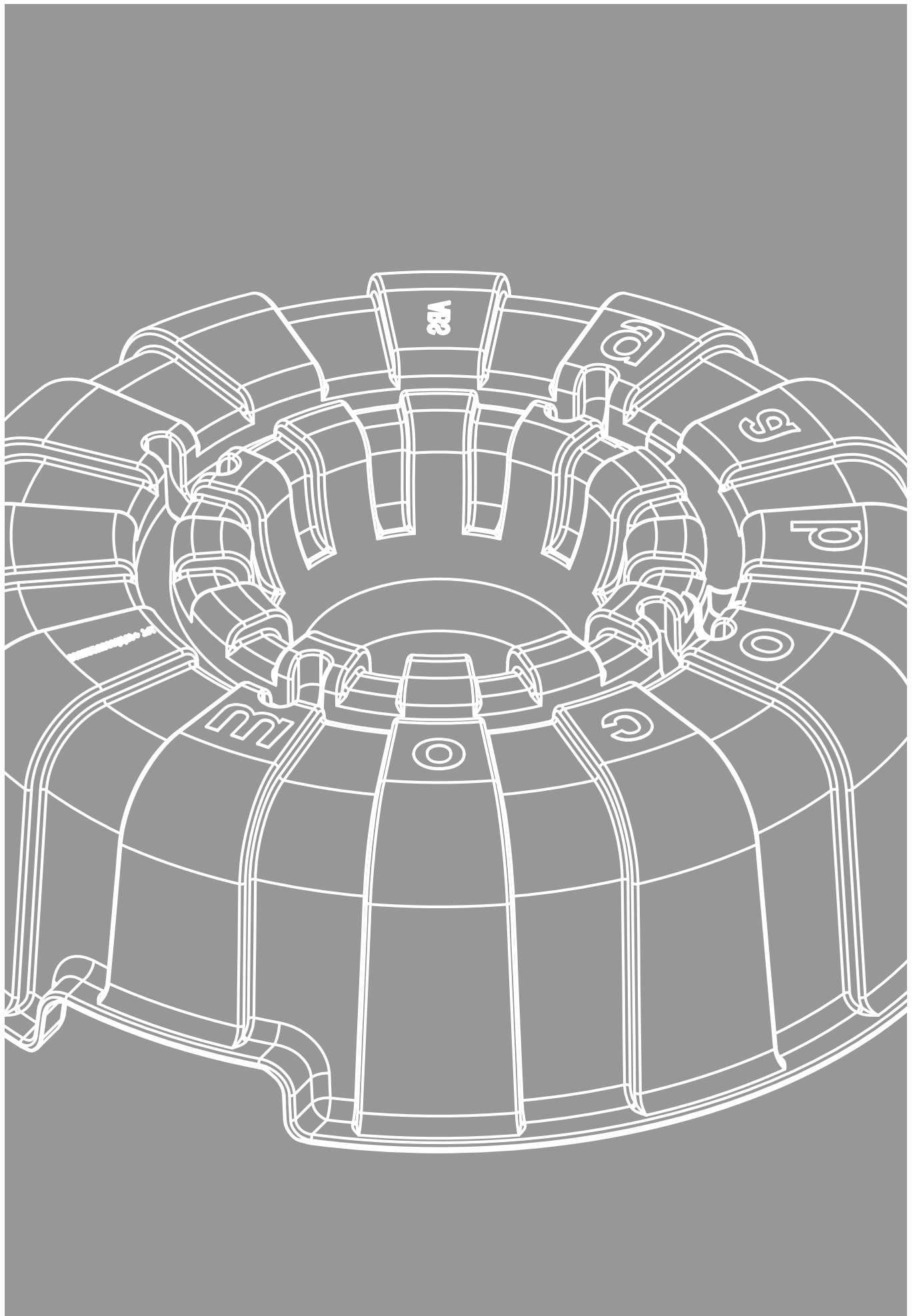
With the identification tapes, direct buried speedpipe and pipe bundles with diameters up to 60 mm can be differentiated by colour.

Features and benefits

- made from LD-PE
- available in all 12 DIN colours
- suitable for ground installation

Type	Applications	Colour	Item no.
Kennzeichnungsband	Identification tapes	Black (BK)	3815
	Identification tapes	Blue (BU)	3808
	Identification tapes	Brown (BN)	3812
	Identification tapes	Green (GN)	3807
	Identification tapes	Grey (GY)	3811
	Identification tapes	Orange (OG)	3814
	Identification tapes	Pink (PK)	3891
	Identification tapes	Red (RD)	3806
	Identification tapes	Turquoise (TQ)	3890
	Identification tapes	Violet (VT)	3813
	Identification tapes	White (WH)	3810
	Identification tapes	Yellow (YE)	3809

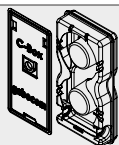
All dimensions in mm. Subject to technical changes.



4.4 Protective elements.

For direct burying.

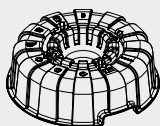
Safe protection of speedpipe and cables against damages. For facilitating the storage of excess length, gabocom has developed special protective elements.



4.4.1 Cable box.

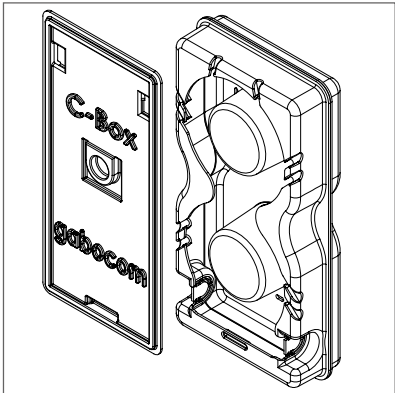


4.4.2 Protective sleeves.



4.4.3 speedpipe box.

4.4.1 Cable box.



Cable box C-Box



Cable boxes C-Box protect the excess length of micro-tube cables in the shaft from damage.

FOR EXCESS LENGTHS OF FIBRE OPTIC CABLES.

The cable box has been developed for excess lengths of fibre optic cables. It is easy to assemble and is locked with a cover. Thus the layed cables are protected against damages.

Type	Configuration	Length (L)	Width (W)	Height (H)	Colour	Item no.
C-Box_Typ_A	30 m micro cable overlength	600	300.0	120	Black (BK)	91
C-Box_Typ_B	120 m micro cable overlength	650	680.0	160	Black (BK)	4088

All dimensions in mm. Subject to technical changes.

4.4.2 Corrugated protective pipes.



Corrugated protective pipes PPWR-t protect speedpipe in the shaft from damage.

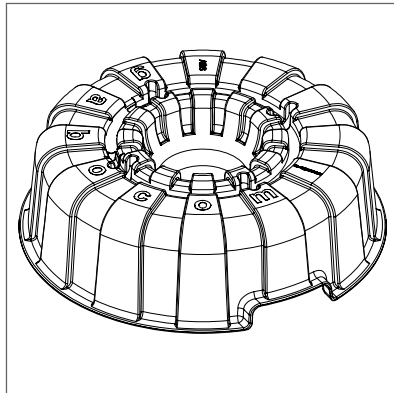
DIVISIBLE PROTECTION FOR SPEEDPIPE.

The corrugated protective pipe is divided in longitudinal direction and protects speedpipe in the shaft against damages.

Type	Ø (D)	Length (L)	Colour	Item no.
PPWR-t_12	12	50 m	Black (BK)	1966
PPWR-t_40	40	25 m	Black (BK)	1913
PPWR-t_50	50	25 m	Black (BK)	1914

All dimensions in mm. Subject to technical changes.

4.4.3 speedpipe box.



speedpipe box



speedpipe box as mechanical protection for excess lengths of speedpipe ground.

Accessories

FOR THE SAFE STORAGE OF SPEEDPIPE GROUND EXCESS LENGTHS.

The speedpipe box is a buriable storage for excess lengths. A bundle of up to 50 meters of speedpipe ground 7 x 1.5 (or 15 m of speedpipe ground 10 x 2.0) remains mechanically protected in the long run. The use of a marking system like for example a ball marker facilitates the later localization.

Features and benefits

- can be fitted with a ball marker or markerpeg
- Outer dimensions: Ø = 340 mm; height = 105 mm

Type	Colour	Item no.
speedpipe_Box	Black (BK)	2609

All dimensions in mm. Subject to technical changes.

