

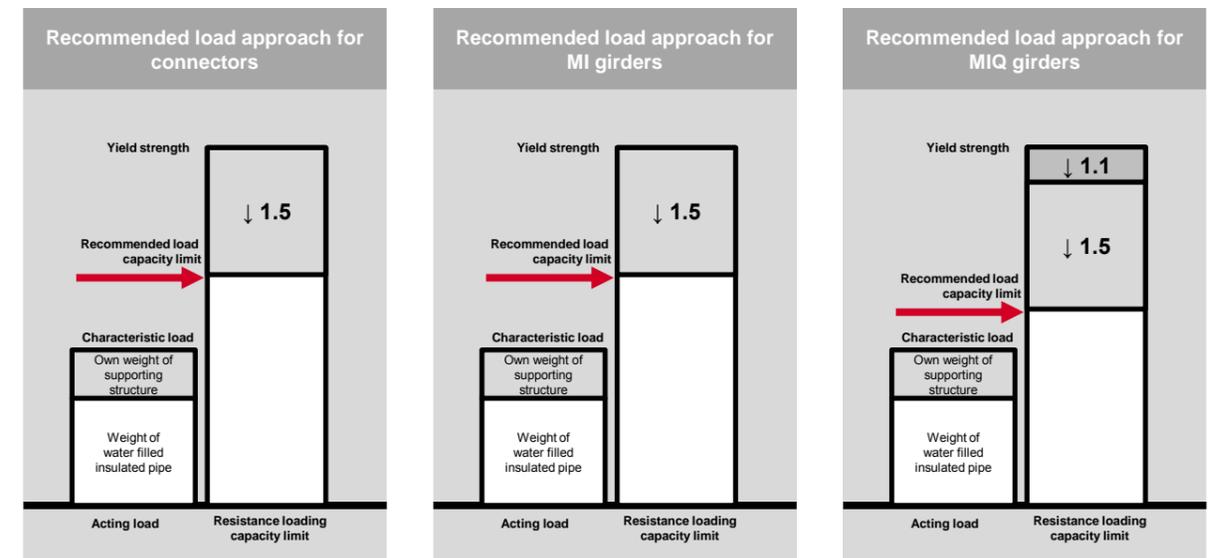
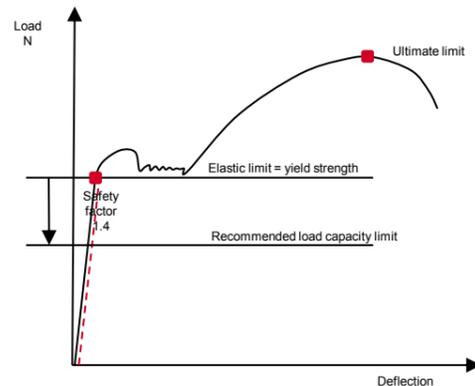
Terms of common cooperation / legal disclaimers

Hilti strives to achieve continuous development and innovation. This manual is thus subject to change without notice. Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use and within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature. Due to the fact that construction materials and environmental conditions vary widely, information given in this manual is solely based on principles and safety factors believed to be correct at the time they were established. The customer is ultimately responsible for checking the present condition of supporting materials and the applicability of the selected product application. Hilti shall not be liable for direct, indirect, incidental or consequential damages, losses or expenses in connection with any information contained in this manual or in connection with, or by reason of, the use of, or inability to use the products for any intended purpose. This limitation of liability does not apply to personal damages culpably caused by Hilti. Implied warranties of merchantability or fitness of the products are herewith expressly excluded.

Loading capacity limit

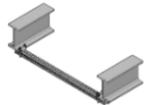
All loading capacity limits in catalogues and application manuals are to be considered as recommended values.

Recommended values are calculated from the elastic limit equal to yield strength, with an applied material safety factor 1.0 for connectors and MI girders or 1.1 for MIQ girders and applied additional safety factor of 1.5.



Contents and overview of this manual

Ceiling applications

1		Trapeze On Frame	
		- Concrete	4
		- Steel	7
2		Trapeze On Rods	
		- Concrete	12
		- Steel	13
3		Ceiling Tree L,T	
		- Concrete	15
		- Steel	17
4		Head Rail	
		- Steel	24
		- MI/MIQ System	25
5		Ceiling 3D Cubes	
		- Concrete	27
		- MI/MIQ System	30

Wall applications

6		Bracket	
		- Concrete	31
		- Steel	35

Floor applications

7		Goal Post	
		- Concrete	42
		- MI/MIQ System	44
8		Floor Tree T	
		- Concrete	46
		- MI/MIQ System	48
9		Floor Tree L	
		- Concrete	50
		- MI/MIQ System	52

Floor applications

10		Floor 3D Cubes	
		- Concrete	54
		- MI/MIQ System	57

Wall-Ceiling applications

11		Wall-Ceiling Frame	
		- Concrete	60
		- MI/MIQ System	61
		Wall-Ceiling Rods	
		- Concrete	62
		- MI/MIQ System	63

Wall-Wall applications

12		Sub-structural Girder	
		- Concrete	65
		- MI/MIQ System	66

Floor-Ceiling applications

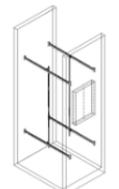
13		Floor-Ceiling Frame	
		- Concrete	68
		- MI/MIQ System	69

Special applications

14		Raised Floors	
		- MI/MIQ/MQ System	71
		- MI/MIQ System	72

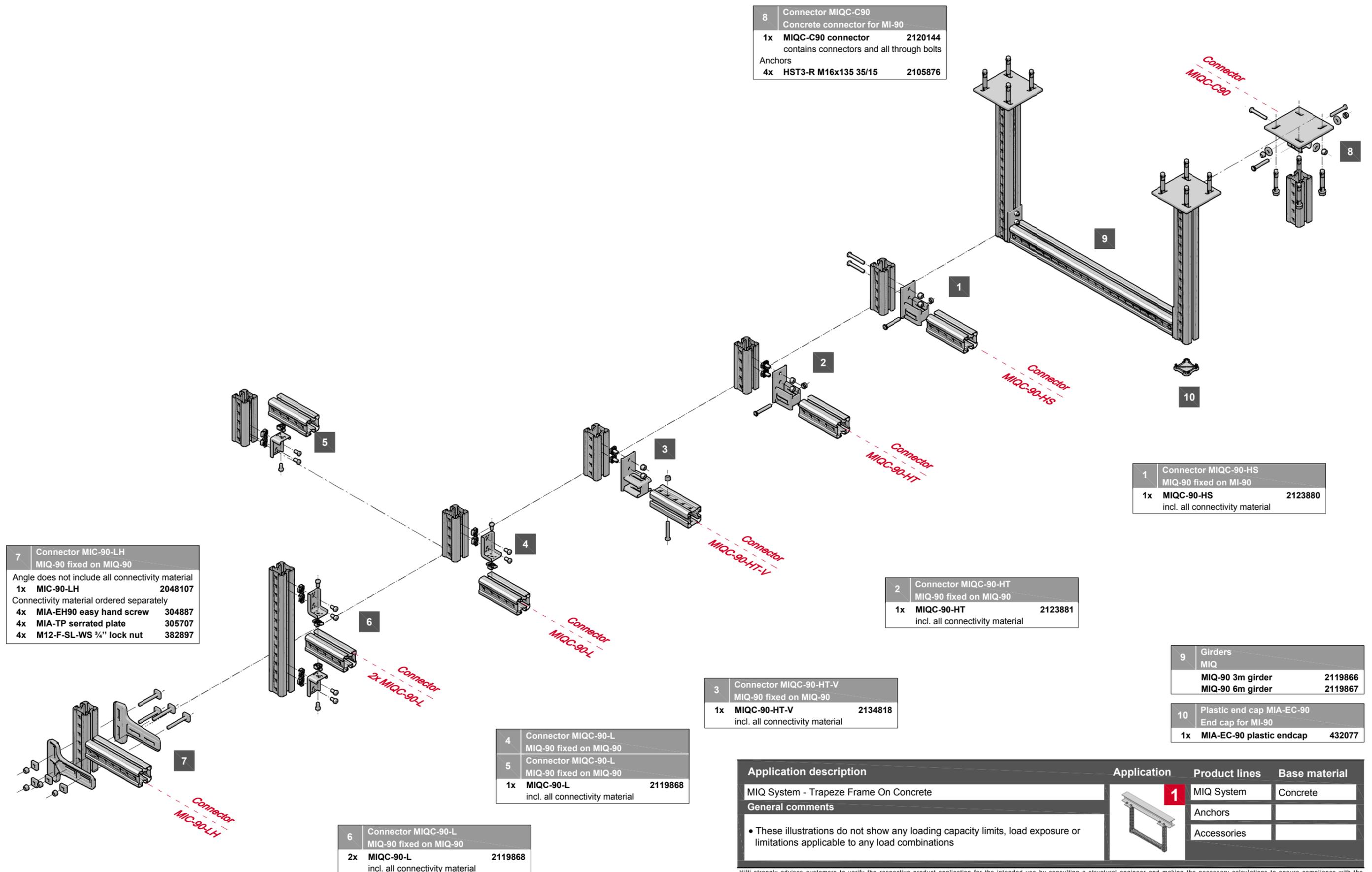
15		Overhead Grids	
		- MI System	74
		- MI/MIQ System	76

16		Platforms	
		- MI System	78
		- MI/MIQ System	79

17		Elevator	
		- Divider beam	81
		- Door Frame	83

18		Accessories	
		- Fixing pipes, cables and ledgers	87
		- Others	96

MIQ System - Trapeze Frame On Concrete - Options



Application description

MIQ System - Trapeze Frame On Concrete

General comments

- These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations

Application Product lines Base material

Application	Product lines	Base material
1	MIQ System	Concrete
	Anchors	
	Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Trapeze Frame On Concrete - Options

1	Connector MIQC-90-MI MIQ-90 fixed on MI-90	
3	Connector MIQC-90-MI MIQ-90 fixed on rotated MI-120	
1x	MIQC-90-MI	2140257
incl. all connectivity material		

2	Connector MIQ-90-MI MIQ-90 fixed on MI-120	
1x	MIQC-90-MI	2140257
incl. all connectivity material		
1x	MIA-EH120 easy screw	304888
the original MIA-EH 90 from the package will remain unused		

4	Connector MIQC-90-MI-V MIQ-90 fixed on MI-90	
6	Connector MIQC-90-MI-V MIQ-90 fixed on rotated MI-120	
1x	MIQC-90-MI-V	2140258
incl. all connectivity material		

5	Connector MIQC-90-MI-V MIQ-90 fixed on MI-120	
1x	MIQC-90-MI-V	2140258
incl. all connectivity material		
1x	MIA-EH120 easy screw	304888
the original MIA-EH 90 from the package will remain unused		

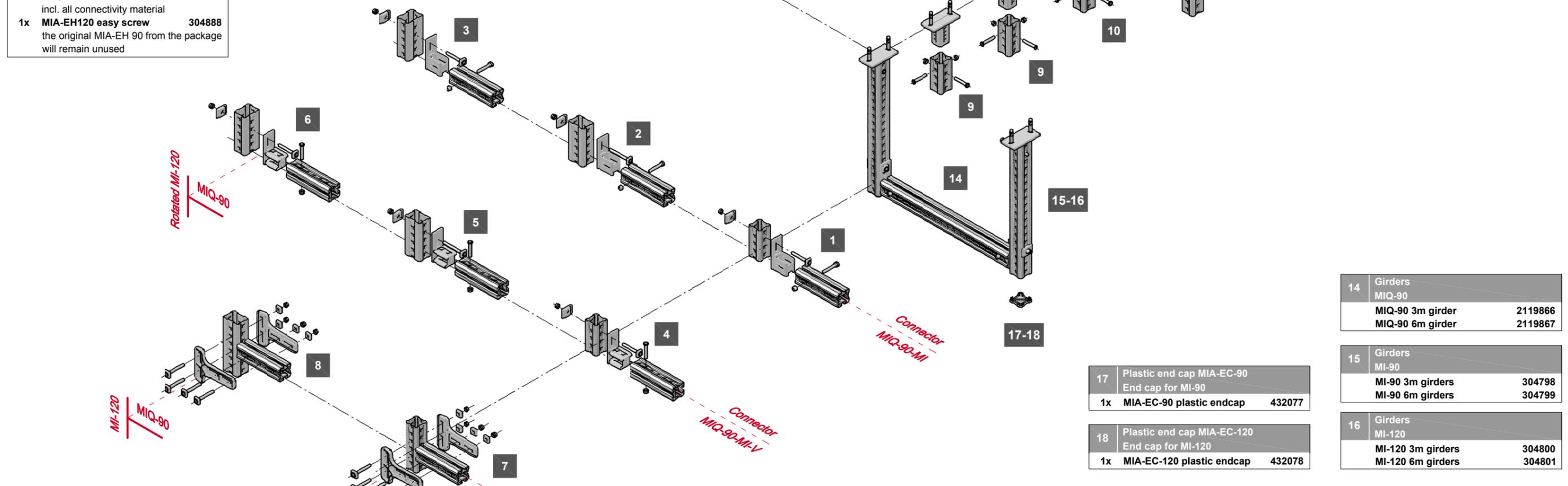
12	Connector MIC-120-D Concrete connector for MI-90	
1x	MIC-C120-D connector	304829
contains connectors and all through bolts		
4x	HST3-R M16x135 35/15	2105876
stud anchor		

13	Brackets MIC-C120-D for concrete	
Bracket (Cantilever arm)		
1x	MIC-C120-D-500	270468
	MIC-C120-D-750	270469
	MIC-C120-D-1000	270470
	MIC-C120-D-1500	270471
	MIC-C120-D-2000	270472
Anchors		
4x	HST3-R M16x135 35/15	2105876

11	Brackets MIC-C900-D for concrete	
Bracket (Cantilever arm)		
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
Anchors		
4x	HST3-R M16x135 35/15	2105876

10	Connector MIC-C90-D Concrete connector for MI-90	
1x	MIC-C90-D connector	304827
contains connectors and all through bolts		
Anchors		
4x	HST3-R M16x135 35/15	2105876

9	Connector MIC-C90-AA Concrete connector for MI-90	
1x	MIC-C90-AA connector	304825
contains connectors and all through bolts		
Anchors		
2x	HST3-R M12x115 40/20	2105870



7	Connector MIC-90-LH MIQ-90 fixed on MI-90	
8	Connector MIC-90-LH MIQ-90 fixed on MI-120	
Angle does not include all connectivity material		
1x	MIC-90-LH	2048107
Connectivity material ordered separately		
4x	MIA-EH90 easy hand screw	304887
4x	MIA-TP serrated plate	305707
4x	M12-F-SL-WS 3/4" lock nut	382897

17	Plastic end cap MIA-EC-90 End cap for MI-90	
1x	MIA-EC-90 plastic endcap	432077

18	Plastic end cap MIA-EC-120 End cap for MI-120	
1x	MIA-EC-120 plastic endcap	432078

14	Girders MIQ-90	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

15	Girders MI-90	
	MI-90 3m girders	304798
	MI-90 6m girders	304799

16	Girders MI-120	
	MI-120 3m girders	304800
	MI-120 6m girders	304801

Application description	Application	Product lines	Base material
MI/MIQ System - Trapeze Frame On Concrete		1 MI/MIQ System	Concrete
General comments		Anchors	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Trapeze Frame On Steel - Vertical Upright MI-90 Options

24	Connector MIC-S90-AA Clamping on flange "Type A"	
1x	MIC-S90-AA connector	304811
	incl. all connectivity material	
2x	MI-SGC M12 beam clamp	233859

11	Connector MIC-S90-B Clamping on flange "Type B"	
1x	MIC-S90-B connector	304813
	incl. all connectivity material	
4x	MI-SGC M12 beam clamp	233859

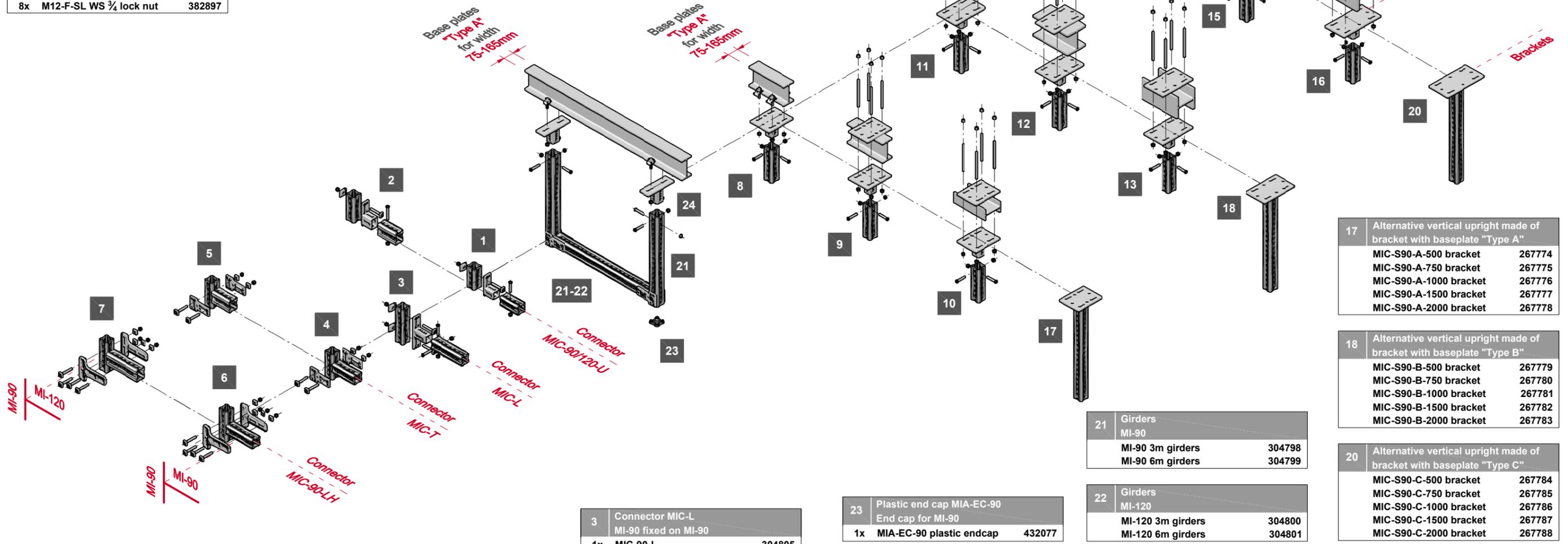
14	Connector MIC-S90-C Clamping on flange "Type C"	
1x	MIC-S90-C connector	304814
	incl. all connectivity material	
4x	MI-SGC M12 beam clamp	233859

8	Connector MIC-S90-A Clamping on flange "Type A"	
1x	MIC-S90-A connector	304812
	incl. all connectivity material	
4x	MI-SGC M12 beam clamp	233859

12	Connector MIC-S90-B Boxing on flange "Type B"	
13	Connector MIC-S90-B Boxing on web "Type B"	
1x	MIC-S90-B connector	304813
	incl. all connectivity material	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

15	Connector MIC-S90-C Clamping on flange "Type C"	
16	Connector MIC-S90-C Clamping on flange "Type C"	
1x	MIC-S90-C connector	304814
	incl. all connectivity material	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

9	Connector MIC-S90-A Boxing on flange "Type A"	
10	Connector MIC-S90-A Boxing on web "Type A"	
1x	MIC-S90-A connector	304812
	incl. all connectivity material	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897



6	Connector MIC-90-LH MI-90 fixed on MI-90	
7	Connector MIC-90-LH MI-120 fixed on MI-90	
Angle does not include all connectivity material		
1x	MIC-90-LH	2048107
Connectivity material ordered separately		
4x	MIA-EH90 easy hand screw	304887
4x	MIA-TP serrated plate	305707
4x	M12-F-SL-WS ¾ lock nut	382897

4	Connector MIC-T MI-90 fixed on MI-90	
5	Connector MIC-T MI-120 fixed on MI-90	
1x	MIC-T	304807
	incl. all connectivity material	

3	Connector MIC-L MI-90 fixed on MI-90	
1x	MIC-90-L	304805
	incl. all connectivity material	

2	Connector MIC-U MI-120 fixed on MI-90	
1x	MIC-120-U	304804
	incl. all connectivity material	

1	Connector MIC-U MI-90 fixed on MI-90	
1x	MIC-90-U	304803
	incl. all connectivity material	

23	Plastic end cap MIA-EC-90 End cap for MI-90	
1x	MIA-EC-90 plastic endcap	432077

21	Girders MI-90	
	MI-90 3m girders	304798
	MI-90 6m girders	304799

22	Girders MI-120	
	MI-120 3m girders	304800
	MI-120 6m girders	304801

17	Alternative vertical upright made of bracket with baseplate "Type A"	
	MIC-S90-A-500 bracket	267774
	MIC-S90-A-750 bracket	267775
	MIC-S90-A-1000 bracket	267776
	MIC-S90-A-1500 bracket	267777
	MIC-S90-A-2000 bracket	267778

18	Alternative vertical upright made of bracket with baseplate "Type B"	
	MIC-S90-B-500 bracket	267779
	MIC-S90-B-750 bracket	267780
	MIC-S90-B-1000 bracket	267781
	MIC-S90-B-1500 bracket	267782
	MIC-S90-B-2000 bracket	267783

20	Alternative vertical upright made of bracket with baseplate "Type C"	
	MIC-S90-C-500 bracket	267784
	MIC-S90-C-750 bracket	267785
	MIC-S90-C-1000 bracket	267786
	MIC-S90-C-1500 bracket	267787
	MIC-S90-C-2000 bracket	267788

Application description	Application	Product lines	Base material
MI System - Trapeze Frame On Steel		MI System	Steel
General comments		Clamps	
• These pictures do not show any loading capacity limits or exposure or limitation to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Trapeze Frame On Steel - Vertical Upright MI-120 Options

7	Connector MIC-S120-A Clamping on flange "Type A"	
1x	MIC-S120-A connector incl. all connectivity material	304818
4x	MI-SGC M12 beam clamp	233859

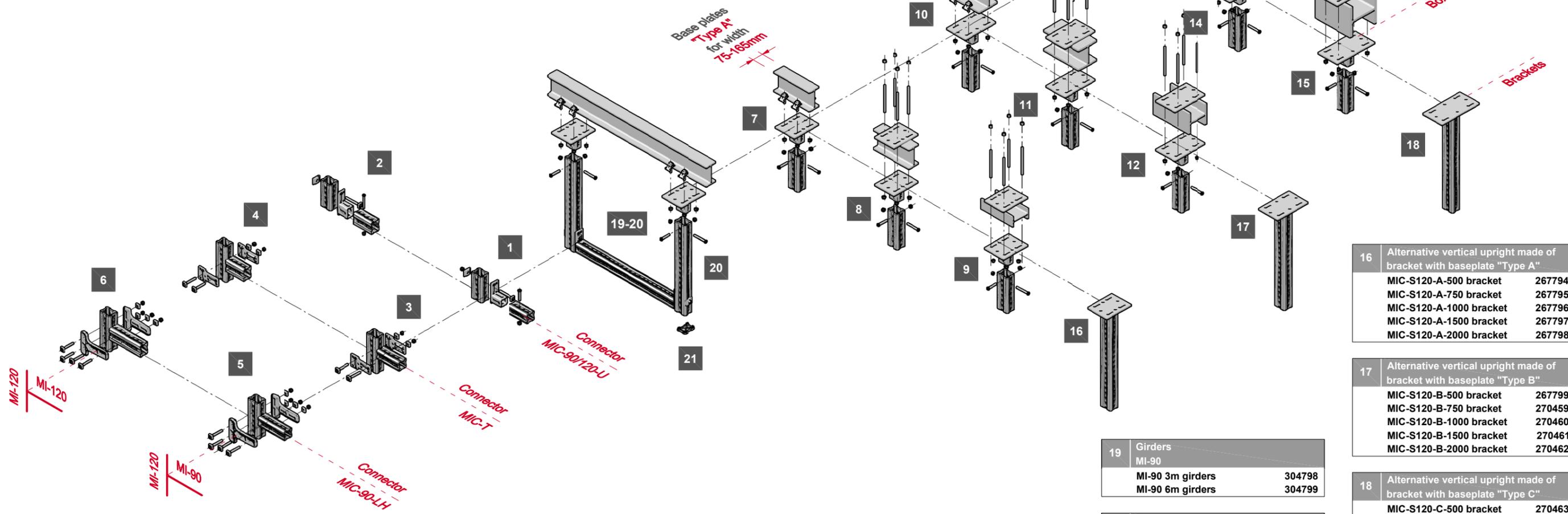
10	Connector MIC-S120-B Clamping on flange "Type B"	
1x	MIC-S120-B connector incl. all connectivity material	304819
4x	MI-SGC M12 beam clamp	233859

13	Connector MIC-S120-C Clamping on flange "Type C"	
1x	MIC-S120-C connector incl. all connectivity material	304820
4x	MI-SGC M12 beam clamp	233859

8	Connector MIC-S90-A Boxing on flange "Type A"	
9	Connector MIC-S90-A Boxing on web "Type A"	
1x	MIC-S90-A connector incl. all connectivity material	304812
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod threaded rods reflecting structural beam size	419103
8x	M12-F-SL WS ¾ lock nut	382897

11	Connector MIC-S90-B Boxing on flange "Type B"	
12	Connector MIC-S90-B Boxing on web "Type B"	
1x	MIC-S120-B connector incl. all connectivity material	304819
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod threaded rods reflecting structural beam size	419103
8x	M12-F-SL WS ¾ lock nut	382897

14	Connector MIC-S120-C Boxing on flange "Type C"	
15	Connector MIC-S120-C Boxing on flange "Type C"	
1x	MIC-S120-C connector incl. all connectivity material	304820
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod threaded rods reflecting structural beam size	419103
8x	M12-F-SL WS ¾ lock nut	382897



5	Connector MIC-90-LH MI-90 fixed on MI-120	
6	Connector MIC-90-LH MI-120 fixed on MI-120	
Angle does not include all connectivity material		
1x	MIC-90-LH	2048107
Connectivity material ordered separately		
4x	MIA-EH90 easy hand screw	304887
4x	MIA-TP serrated plate	305707
4x	M12-F-SL-WS ¾ lock nut	382897

3	Connector MIC-T MI-90 fixed on MI-120	
4	Connector MIC-T MI-120 fixed on MI-120	
1x	MIC-T incl. all connectivity material	304807

2	Connector MIC-U MI-120 fixed on MI-120	
1x	MIC-120-U incl. all connectivity material	304804
1x	MIA-EH120 easy screw the original MIA-EH 90 from the package will remain unused	304888

1	Connector MIC-U MI-90 fixed on MI-120	
1x	MIC-90-U incl. all connectivity material	304803
1x	MIA-EH120 easy screw the original MIA-EH 90 from the package will remain unused	304888

21	Plastic end cap MIA-EC-120 End cap for MI-120	
1x	MIA-EC-120 plastic endcap	432078

19	Girders MI-90	
	MI-90 3m girders	304798
	MI-90 6m girders	304799

20	Girders MI-120	
	MI-120 3m girders	304800
	MI-120 6m girders	304801

16	Alternative vertical upright made of bracket with baseplate "Type A"	
	MIC-S120-A-500 bracket	267794
	MIC-S120-A-750 bracket	267795
	MIC-S120-A-1000 bracket	267796
	MIC-S120-A-1500 bracket	267797
	MIC-S120-A-2000 bracket	267798

17	Alternative vertical upright made of bracket with baseplate "Type B"	
	MIC-S120-B-500 bracket	267799
	MIC-S120-B-750 bracket	270459
	MIC-S120-B-1000 bracket	270460
	MIC-S120-B-1500 bracket	270461
	MIC-S120-B-2000 bracket	270462

18	Alternative vertical upright made of bracket with baseplate "Type C"	
	MIC-S120-C-500 bracket	270463
	MIC-S120-C-750 bracket	270464
	MIC-S120-C-1000 bracket	270465
	MIC-S120-C-1500 bracket	270466
	MIC-S120-C-2000 bracket	270467

Application description	Application	Product lines	Base material
MI System - Trapeze Frame On Steel		MI System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These pictures do not show any loading capacity limits or exposure or limitation to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Trapeze Frame On Steel - Boxed Options

1	Connector MIQC-90-HS MIQ-90 fixed on MI-90	
1x	MIQC-90-HS	2123880
incl. all connectivity material		

2	Connector MIQC-90-HT MIQ-90 fixed on MIQ-90	
1x	MIQC-90-HT	2123881
incl. all connectivity material		

3	Connector MIQC-90-HT-V MIQ-90 fixed on MIQ-90	
1x	MIQC-90-HT-V	2134818
incl. all connectivity material		

4	Connector MIQC-90-L MIQ-90 fixed on MIQ-90	
5	Connector MIQC-90-L MIQ-90 fixed on MIQ-90	
1x	MIQC-90-L	2119868
incl. all connectivity material		

6	Connector MIQC-90-L MIQ-90 fixed on MIQ-90	
2x	MIQC-90-L	2119868
incl. all connectivity material		

7	Connector MIC-90-LH MIQ-90 fixed on MIQ-90	
Angle does not include all connectivity material		
1x	MIC-90-LH	2048107
Connectivity material ordered separately		
4x	MIA-EH90 easy hand screw	304887
4x	MIA-TP serrated plate	305707
4x	M12-F-SL-WS 3/4" lock nut	382897

8	Boxing flange "Type A" upper connector Steel beam parallel to trapeze	
9	Boxing web "Type A" upper connector Steel beam parallel to trapeze	
1x	MIQC-S90-AP connector	2120271
Contains connector and all through bolts		
1x	MIQB-SA base plate	2123565
8x	M12-F-SL WS3/4 lock nut	382897
4x	AM12x1000-HDG 8.8 t-rod	419103
threaded rods reflecting structural beam size		

8	Boxing flange "Type A" upper connector Steel beam parallel to trapeze	
9	Boxing web "Type A" upper connector Steel beam parallel to trapeze	
1x	MIQC-S90-AP connector	2120271
Contains connector and all through bolts		
1x	MIQB-SA base plate	2123565
8x	M12-F-SL WS3/4 lock nut	382897
4x	AM12x1000-HDG 8.8 t-rod	419103
threaded rods reflecting structural beam size		

10	Boxing flange "Type A" upper connector Steel beam perpendicular to trapeze	
11	Boxing web "Type A" upper connector Steel beam perpendicular to trapeze	
1x	MIQC-S90-AC connector	2120270
Contains connector and all through bolts		
1x	MIQB-SA base plate	2123565
8x	M12-F-SL WS3/4 lock nut	382897
4x	AM12x1000-HDG 8.8 t-rod	419103
threaded rods reflecting structural beam size		

10	Boxing flange "Type A" upper connector Steel beam perpendicular to trapeze	
11	Boxing web "Type A" upper connector Steel beam perpendicular to trapeze	
1x	MIQC-S90-AC connector	2120270
Contains connector and all through bolts		
1x	MIQB-SA base plate	2123565
8x	M12-F-SL WS3/4 lock nut	382897
4x	AM12x1000-HDG 8.8 t-rod	419103
threaded rods reflecting structural beam size		

12	Boxing flange "Type B" upper connector Steel beam parallel to trapeze	
13	Boxing web "Type B" upper connector Steel beam parallel to trapeze	
1x	MIQC-S90-BP connector	2120273
Contains connector and all through bolts		
1x	MIQB-SB base plate	2123566
8x	M12-F-SL WS3/4 lock nut	382897
4x	AM12x1000-HDG 8.8 t-rod	419103
threaded rods reflecting structural beam size		

12	Boxing flange "Type B" upper connector Steel beam parallel to trapeze	
13	Boxing web "Type B" upper connector Steel beam parallel to trapeze	
1x	MIQC-S90-BP connector	2120273
Contains connector and all through bolts		
1x	MIQB-SB base plate	2123566
8x	M12-F-SL WS3/4 lock nut	382897
4x	AM12x1000-HDG 8.8 t-rod	419103
threaded rods reflecting structural beam size		

14	Boxing flange "Type B" upper connector Steel beam perpendicular to trapeze	
15	Boxing web "Type B" upper connector Steel beam perpendicular to trapeze	
1x	MIQC-S90-BC connector	2120272
Contains connector and all through bolts		
1x	MIQB-SB base plate	2123566
8x	M12-F-SL WS3/4 lock nut	382897
4x	AM12x1000-HDG 8.8 t-rod	419103
threaded rods reflecting structural beam size		

14	Boxing flange "Type B" upper connector Steel beam perpendicular to trapeze	
15	Boxing web "Type B" upper connector Steel beam perpendicular to trapeze	
1x	MIQC-S90-BC connector	2120272
Contains connector and all through bolts		
1x	MIQB-SB base plate	2123566
8x	M12-F-SL WS3/4 lock nut	382897
4x	AM12x1000-HDG 8.8 t-rod	419103
threaded rods reflecting structural beam size		

16	Girders MIQ	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

17	Plastic end cap MIA-EC-90 End cap for MI-90	
1x	MIA-EC-90 plastic endcap	432077

Application description	Application	Product lines	Base material
MIQ System - Trapeze Frame On Steel		1 MIQ System	Steel
General comments		Clamps	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

MIQ System - Trapeze Frame On Steel - Clamped Options

1 Connector MIQC-90-HS
MIQ-90 fixed on MI-90
1x **MIQC-90-HS** 2123880
incl. all connectivity material

2 Connector MIQC-90-HT
MIQ-90 fixed on MIQ-90
1x **MIQC-90-HT** 2123881
incl. all connectivity material

3 Connector MIQC-90-HT-V
MIQ-90 fixed on MIQ-90
1x **MIQC-90-HT-V** 2134818
incl. all connectivity material

4 Connector MIQC-90-L
MIQ-90 fixed on MIQ-90
5 Connector MIQC-90-L
MIQ-90 fixed on MIQ-90
1x **MIQC-90-L** 2119868
incl. all connectivity material

6 Connector MIQC-90-L
MIQ-90 fixed on MIQ-90
2x **MIQC-90-L** 2119868
incl. all connectivity material

8 Connector MIQC-S90-AP
Clamping on flange "Type A"
Connector for flange width 75-165mm
1x **MIQC-S90-AP connector** 2120271
Beam clamps
4x **MI-SGC M12 beam clamp** 233859

9 Connector MIQC-S90-AC
Clamping on flange "Type B"
Connector for flange width 75-165mm
1x **MIQC-S90-AC connector** 2120270
Beam clamps
4x **MI-SGC M12 beam clamp** 233859

10 Connector MIQC-S90-BP
Clamping on flange "Type A"
Connector for flange width 165-235mm
1x **MIQC-S90-BP connector** 2120273
Beam clamps
4x **MI-SGC M12 beam clamp** 233859

11 Connector MIQC-S90-BP
Clamping on flange "Type B"
Connector for flange width 165-235mm
1x **MIQC-S90-BC connector** 2120272
Beam clamps
4x **MI-SGC M12 beam clamp** 233859

12 Girders
MIQ
MIQ-90 3m girder 2119866
MIQ-90 6m girder 2119867

13 Plastic end cap MIA-EC-90
End cap for MI-90
1x **MIA-EC-90 plastic endcap** 432077

7 Connector MIC-90-LH
MIQ-90 fixed on MIQ-90
Angle does not include all connectivity material
1x **MIC-90-LH** 2048107
Connectivity material ordered separately
4x **MIA-EH90 easy hand screw** 304887
4x **MIA-TP serrated plate** 305707
4x **M12-F-SL-WS 3/4" lock nut** 382897

Application description	Application	Product lines	Base material
MIQ System - Trapeze Frame On Steel	 1	MIQ System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Trapeze On Rods On Concrete - Options

M16 Options

9	M16 base plate + 2x anchor
1x	MFP-GP 16-F base plate 304279
2x	HST3-R M12x105 30/10 an. 2105869

8	M16 stud anchor + coupler
1x	HST3-R M16x145 45/25 2105877
1x	M16x50-F coupler 304794
1x	M16-F nut 304767

7	M16 drop-in anchor
1x	HKD SR M16x65 anchor 247955
1x	A 17/30 A4 washer 387989
1x	M16 A4-70 nut 52463

6	M16 threaded rods
1x	AM16x1000-F 4.8 t-rod 304776
	AM16x2000-F 4.8 t-rod 304777

5	Trapeze rod connector MIC-TRC M16 For hanging on M16 threaded rods
1x	MIC-TRC M16 233857 incl. through bolt, bottom plate and upper washer
2x	M16-F nut 304767

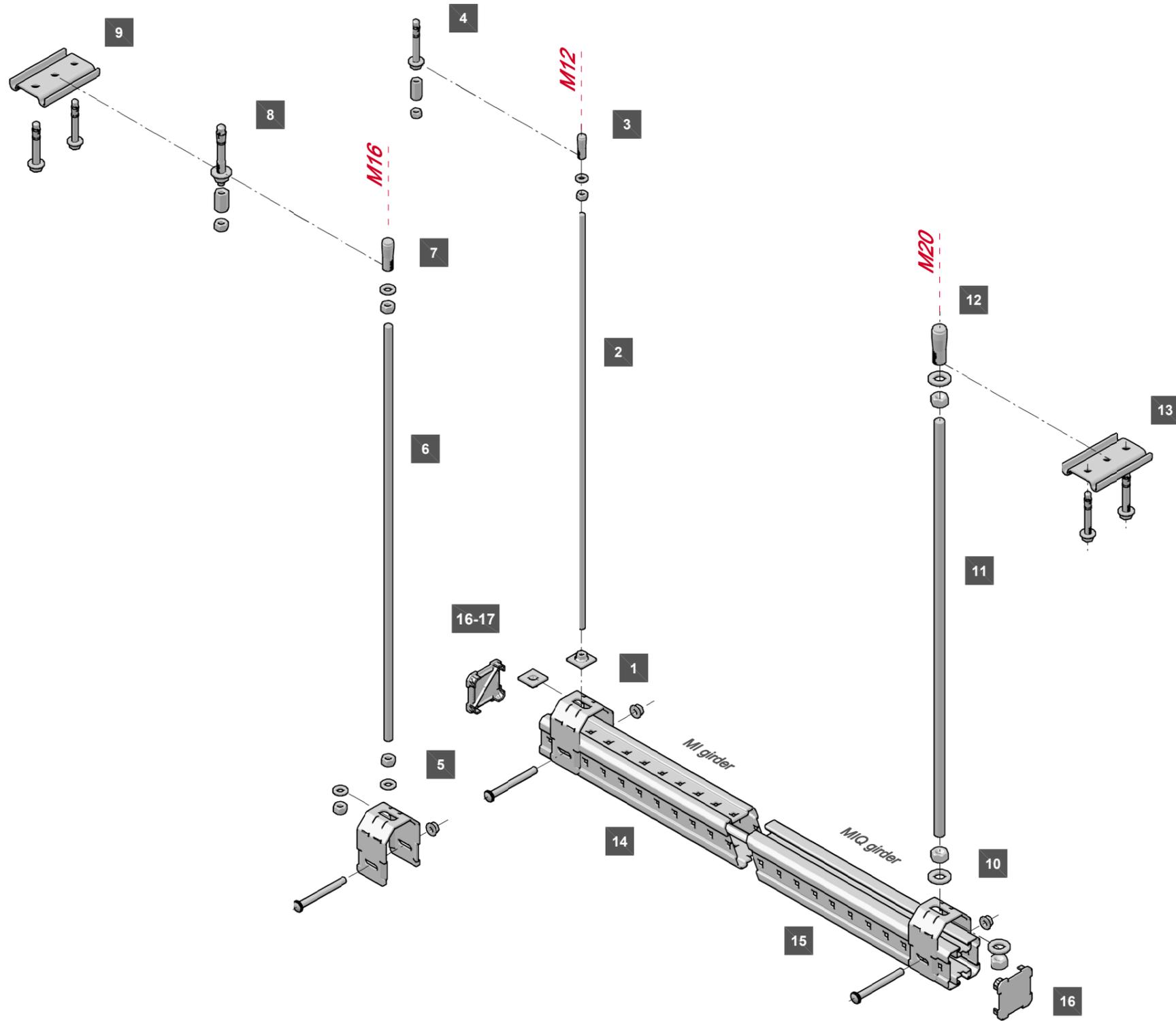
M12 Options

4	M12 stud anchor + coupler
1x	HST3-R M12x115 40/20 2105870
1x	M12x40-F coupler 304793
1x	M12-F nut 304766

3	M12 drop-in anchor
1x	HKD SR M12x50 anchor 247954
1x	A 13/24 A4 washer 58041
1x	M12 A4-70 nut 52462

2	M16 threaded rods
1x	AM12x1000-F 4.8 t-rod 304774
	AM12x2000-F 4.8 t-rod 304775

1	Trapeze rod connector MIC-TRC M12-1/2" For hanging on M12 threaded rods
1x	MIC-TRC M12-1/2" 233856 incl. through bolt, bottom plate and upper washer 1/2" plate remain
2x	M12-F nut 304766



M20 Options

13	M20 base plate + 2x anchor
1x	MFP-GP 20-F base plate 304251
2x	HST3-R M12x105 30/10 an. 2105869

12	M20 drop-in anchor
1x	HKD SR M20x80 anchor 247956
1x	A 21/37 A4 washer 387990
1x	M20 A4-70 nut 387992

11	M20 threaded rod
1x	AM20x1000-F 4.8 t-rod 304778

10	Trapeze rod connector MIC-TRC M20-3/4" For hanging on M20 threaded rods
1x	MIC-TRC M20-3/4" 233858 incl. through bolt, bottom plate and upper washer
2x	M20-F nut 304768

16	Plastic end cap MIA-EC-90 End cap for MI-90 and MIQ-90
1x	MIA-EC-90 plastic endcap 432077

17	Plastic end cap MIA-EC-120 End cap for MI-120
1x	MIA-EC-120 plastic endcap 432078

14	Girders
MI	
	MI-90 3m girder 304798
	MI-90 6m girder 304799
	MI-120 3m girder 304800
	MI-120 6m girder 304801

15	Girders
MIQ	
	MIQ-90 3m girder 2119866
	MIQ-90 6m girder 2119867

Application description	Application	Product lines	Base material
MI/MIQ System - Trapeze On Rods On Concrete	2	MI/MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Trapeze On Rods On Steel - Options

M12 Options

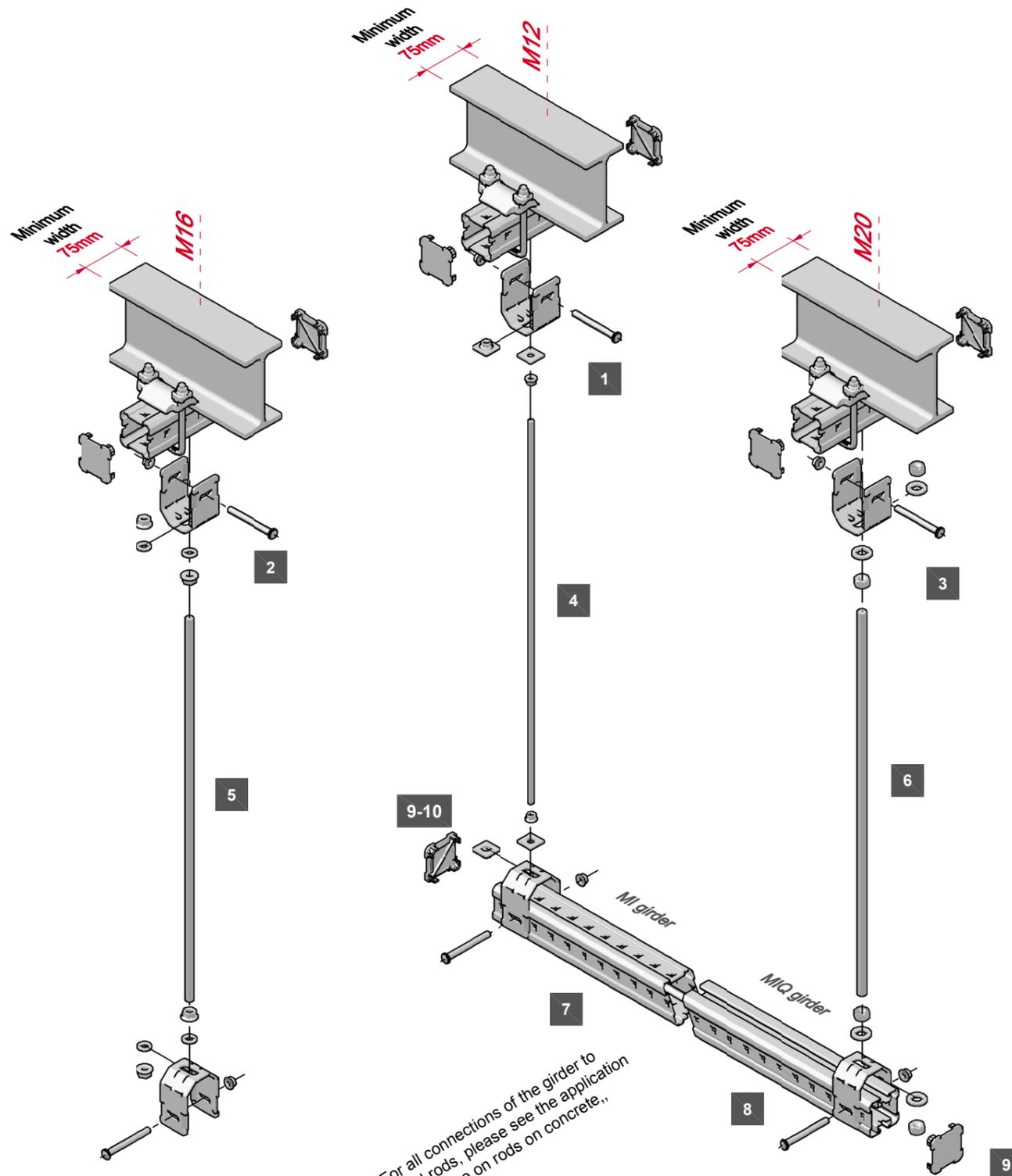
1	M12 Connection on steel beam	
1x	MIC-TRC M12-1/2 incl. through bolt, bottom plate and upper square washer 1/2" plate remain unused	233856
1x	M12-F nut	304766
1x	AM12x1000-F 4.8 t-rod	304774
1x	MI-90 3m ...m girder	304798
2x	MIA-EC-90 plastic endcaps	432077
2x	MI-DGC 90 beam clamps	233860

4	M12 Threaded rods	
1x	AM12x1000-F 4.8 th. rod	304774
	AM12x2000-F 4.8 th. rod	304775

M16 Options

2	M16 Connection on steel beam	
1x	MIC-TRC M16 incl. through bolt, bottom plate and upper washer	233857
1x	M16-F nut	304767
1x	AM16x1000-F 4.8 t-rod	304776
1x	MI-90 3m ...m girder	304798
2x	MIA-EC-90 plastic endcaps	432077
2x	MI-DGC 90 beam clamps	233860

5	M16 Threaded rods	
1x	AM16x1000-F 4.8 th. rod	304776
	AM16x2000-F 4.8 th. rod	304777

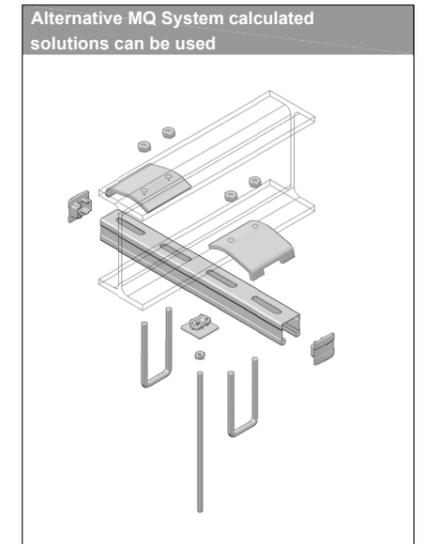


For all connections of the girder to threaded rods, please see the application „Trapeze on rods on concrete.“

M20 Options

3	M20 Connection on steel beam	
1x	MIC-TRC M20-3/4" incl. through bolt, bottom plate and upper washer	233858
1x	M20-F nut	304768
1x	AM20x1000-F 4.8 t-rod	304778
1x	MI-90 3m ...m girder	304798
2x	MIA-EC-90 plastic endcaps	432077
2x	MI-DGC 90 beam clamps	233860

6	M20 Threaded rods	
1x	AM20x1000-F 4.8 th. rod	304778



9	Plastic end cap MIA-EC-90 End cap for MI-90 and MIQ-90	
1x	MIA-EC-90 plastic endcap	432077

10	Plastic end cap MIA-EC-120 End cap for MI-120	
1x	MIA-EC-120 plastic endcap	432078

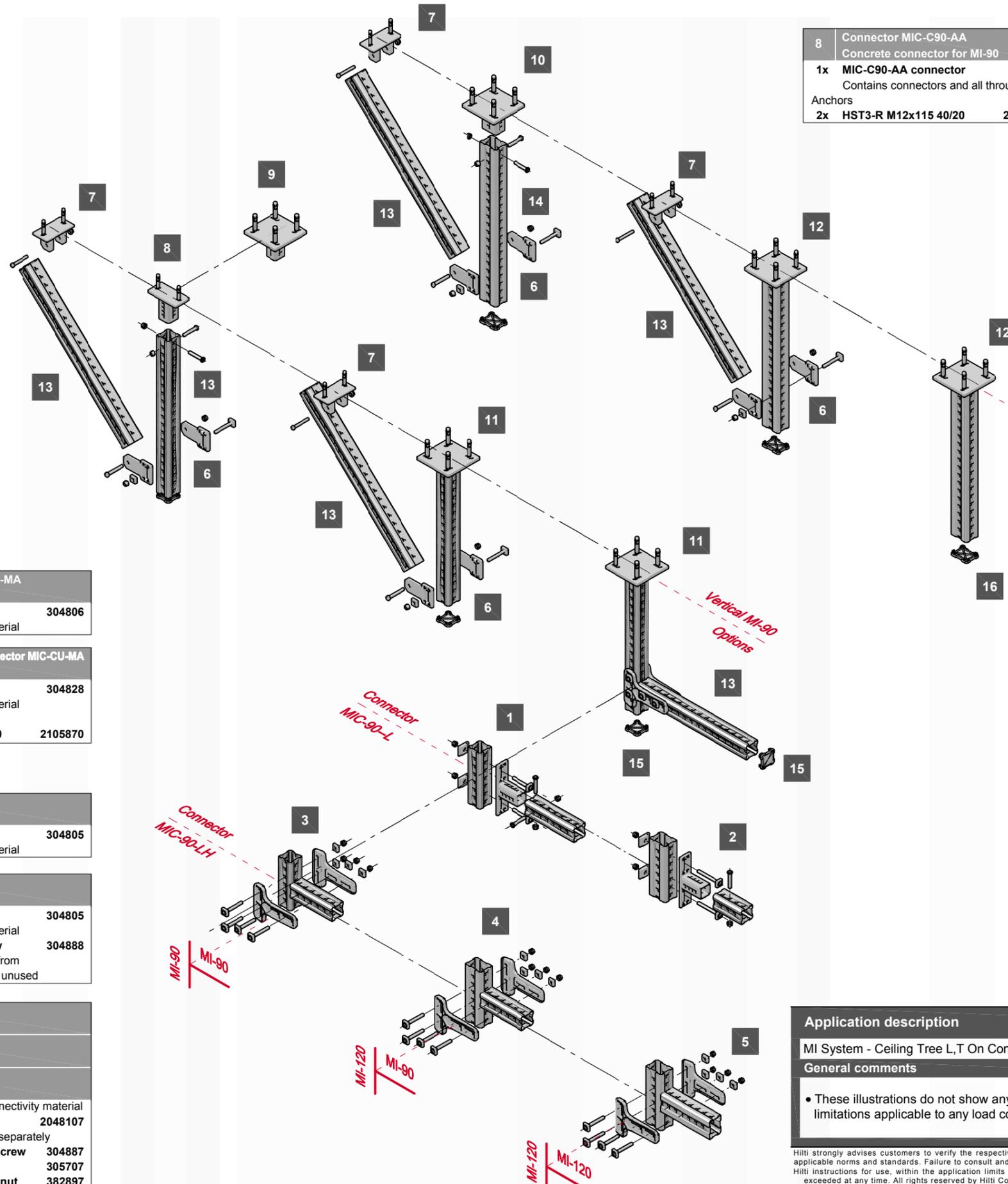
7	Girders MI	
	MI-90 3m girder	304798
	MI-90 6m girder	304799
	MI-120 3m girder	304800
	MI-120 6m girder	304801

8	Girders MIQ	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

Application description	Application	Product lines	Base material
MI/MIQ System - Trapeze On Rods On Steel		MI/MIQ System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Ceiling Tree L,T On Concrete - Options



6	Pivot connector MIC-U-MA
1x	MIC-U-MA 304806 incl. all connectivity material

7	Base material pivot connector MIC-CU-MA
1x	MIC-CU-MA 304828 incl. all connectivity material
Anchors	
2x	HST3-R M12x115 40/20 2105870

1	Connector MIC-L MI-90 fixed on MI-90
1x	MIC-90-L 304805 incl. all connectivity material

2	Connector MIC-L MI-90 fixed on MI-120
1x	MIC-90-L 304805 incl. all connectivity material
2x	MIA-EH120 easy screw 304888 the original MIA-EH 90 from the package will remain unused

3	Connector MIC-90-LH MI-90 fixed on MI-90
4	Connector MIC-90-LH MI-90 fixed on MI-120
5	Connector MIC-90-LH MI-120 fixed on MI-120
Angle does not include all connectivity material	
1x	MIC-90-LH 2048107 Connectivity material ordered separately
4x	MIA-EH90 easy hand screw 304887
4x	MIA-TP serrated plate 305707
4x	M12-F-SL-WS 3/4" lock nut 382897

8	Connector MIC-C90-AA Concrete connector for MI-90
1x	MIC-C90-AA connector 304825 Contains connectors and all through bolts
Anchors	
2x	HST3-R M12x115 40/20 2105870

10	Connector MIC-C120-D Concrete connector for MI-120
1x	MIC-C120-D connector 304829 Contains connector and all through bolts
Anchors	
4x	HST3-R M16x135 35/15 2105876

9	Connector MIC-C90-D Concrete connector for MI-90
1x	MIC-C90-D connector 304827 Contains connectors and all through bolts
Anchors	
4x	HST3-R M16x135 35/15 2105876

11	Brackets MIC-C90-D Concrete brackets
Bracket (Cantilever arm)	
1x	MIC-C90-D-500 267789
	MIC-C90-D-750 267790
	MIC-C90-D-1000 267791
	MIC-C90-D-1500 267792
	MIC-C90-D-2000 267793
Anchors	
4x	HST3-R M16x135 35/15 2105876

12	Brackets MIC-C120-D Concrete brackets
Bracket (Cantilever arm)	
1x	MIC-C120-D-500 270468
	MIC-C120-D-750 270469
	MIC-C120-D-1000 270470
	MIC-C120-D-1500 270471
	MIC-C120-D-2000 270472
Anchors	
4x	HST3-R M16x135 35/15 2105876

13	Girders MI-90
	MI-90 3m girder 304798
	MI-90 6m girder 304799

14	Girders MI-120
	MI-120 3m girder 304800
	MI-120 6m girder 304801

15	Plastic end cap MIA-EC-90 End cap for MI-90
1x	MIA-EC-90 plastic endcap 432077

16	Plastic end cap MIA-EC-120 End cap for MI-120
1x	MIA-EC-120 plastic endcap 432078

Application description	MI System - Ceiling Tree L,T On Concrete
General comments	<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations
Application	3
Product lines	MI System
Base material	Concrete
	Clamps
	Accessories

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Ceiling Tree L,T On Concrete - Options

13	Connector MQP-45-F for bracing with MQ channel
1x	MQP-45-F brace connector 304164
2x	MQN-HDG plus push button 387779
1x	HST3-R M12x105 30/10 2105869

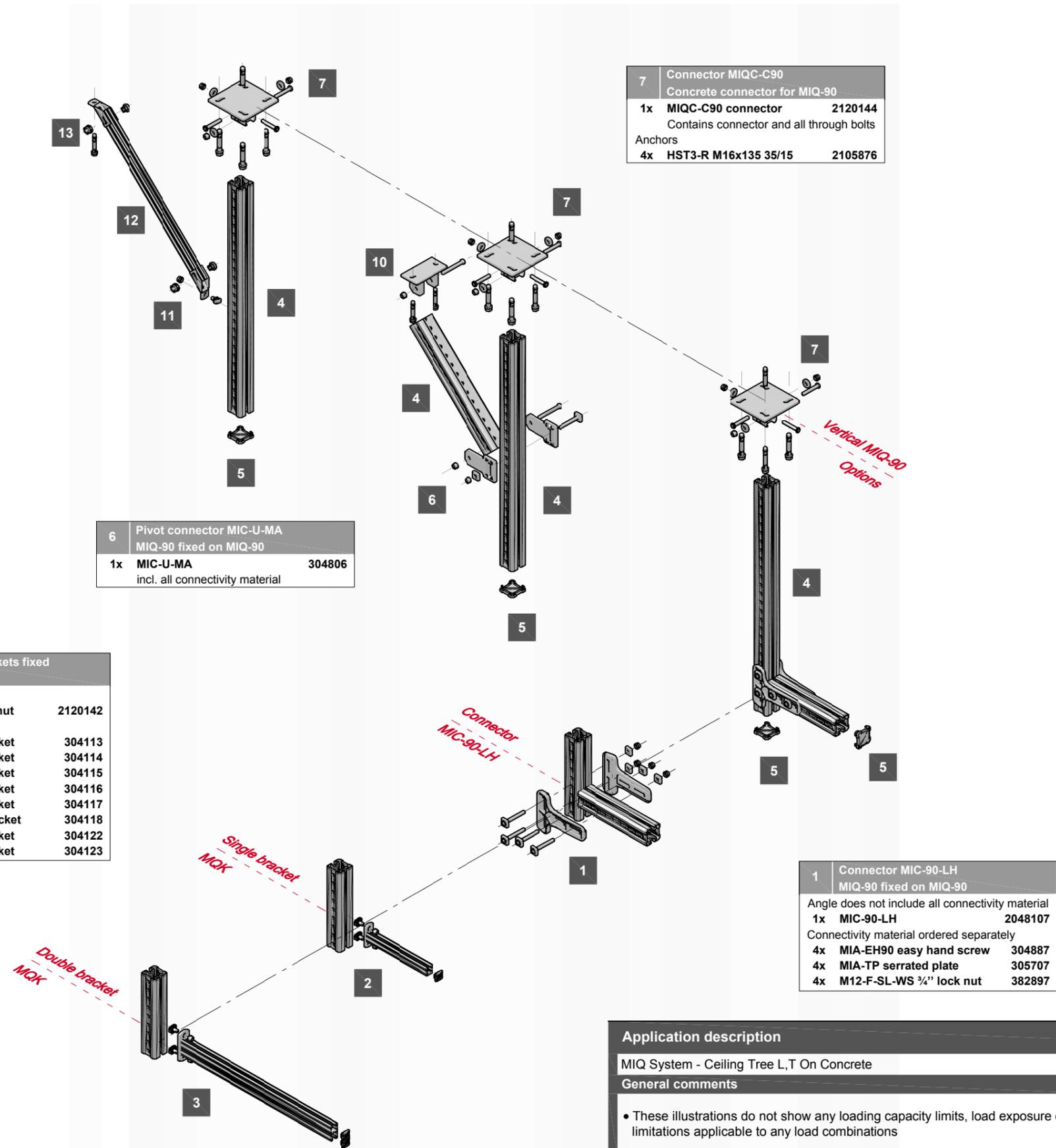
12	Bracing channel MQ channel
1x	MQ-41-F 3m channel 304099
	MQ-41-F 6m channel 304100

11	Connector MQP-45-F for bracing with MQ channel
1x	MQP-45-F brace connector 304164
2x	MQN-HDG plus push button 387779
1x	MIQA-T T-bolt (incl. nut) 2120142

10	Base material pivot connector MIC-CU-MA
1x	MIC-CU-MA 304828
	incl. all connectivity material
Anchors	
2x	HST3-R M12x105 30/10 2105869

2	Single MQK-F brackets fixed to MIQ girder
T-bolts	
2x	MIQA-T t-bolt incl. nut 2120142
MQK-F bracket	
1x	MQK-21/300-F bracket 304113
	MQK-21/450-F bracket 304114
	MQK-41/300-F bracket 304115
	MQK-41/450-F bracket 304116
	MQK-41/600-F bracket 304117
	MQK-41/1000-F bracket 304118
	MQK-72/450-F bracket 304122
	MQK-72/600-F bracket 304123

3	Double MQK-F brackets fixed to MIQ girder
T-bolts	
2x	MIQA-T t-bolt incl. nut 2120142
MQK-F bracket	
1x	MQK-21 D/300-F bracket 304124
	MQK-21 D/450-F bracket 304125
	MQK-21 D/600-F bracket 304126
	MQK-41 D/1000-F bracket 304127



7	Connector MIQC-C90 Concrete connector for MIQ-90
1x	MIQC-C90 connector 2120144
Contains connector and all through bolts	
Anchors	
4x	HST3-R M16x135 35/15 2105876

6	Pivot connector MIC-U-MA MIQ-90 fixed on MIQ-90
1x	MIC-U-MA 304806
incl. all connectivity material	

1	Connector MIC-90-LH MIQ-90 fixed on MIQ-90
Angle does not include all connectivity material	
1x	MIC-90-LH 2048107
Connectivity material ordered separately	
4x	MIA-EH90 easy hand screw 304887
4x	MIA-TP serrated plate 305707
4x	M12-F-SL-WS 3/4" lock nut 382897

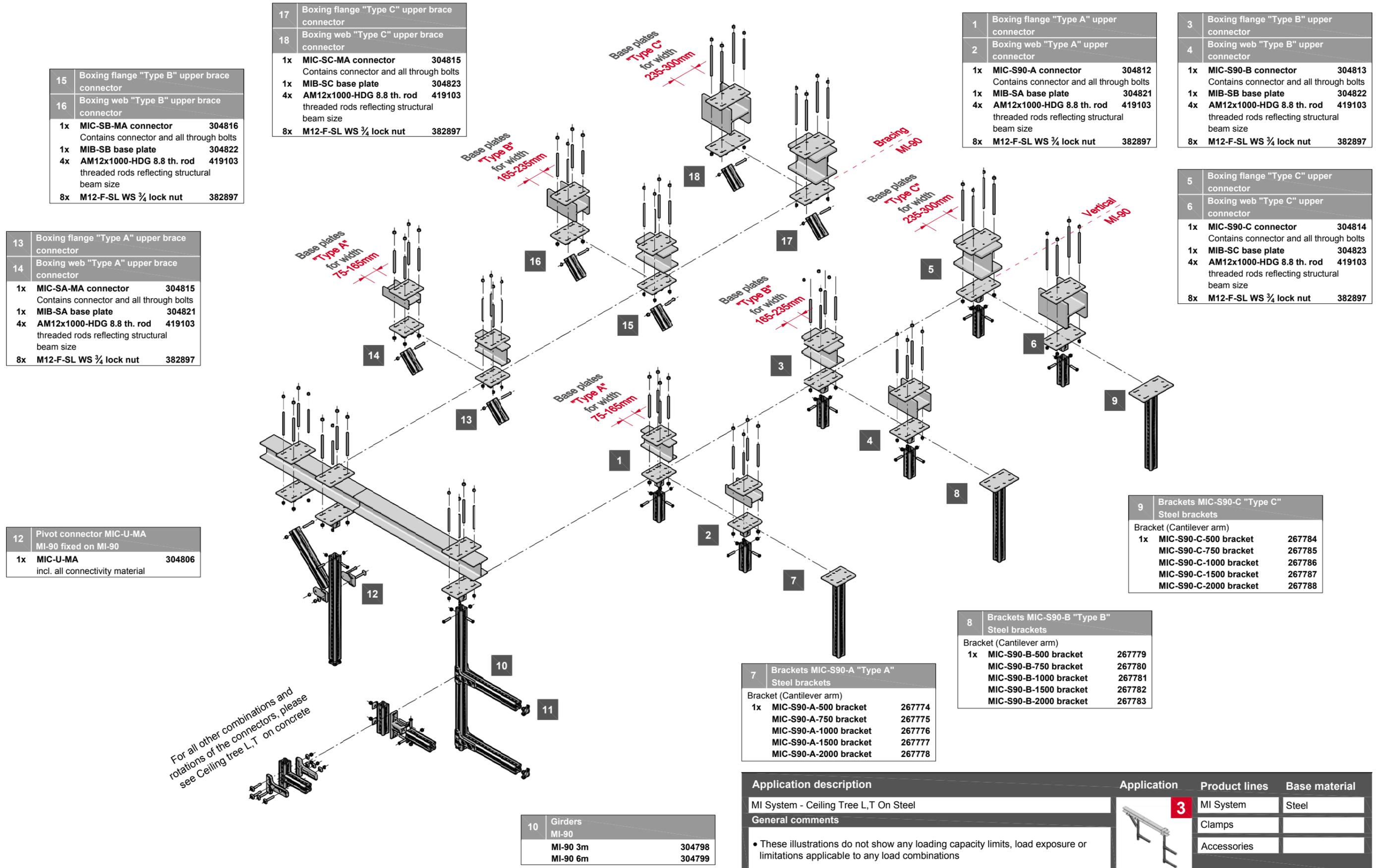
4	Girders MI-90
	MIQ-90 3m girder 2119866
	MIQ-90 6m girder 2119867

5	Plastic end cap MIA-EC-90 End cap for MIQ-90
1x	MIA-EC-90 plastic endcap 432077

Application description	Application	Product lines	Base material
MIQ System - Ceiling Tree L,T On Concrete		3 MIQ System	Concrete
General comments		Clamps	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Ceiling Tree L,T On Steel - Boxed Beam Options - Vertical upright MI-90



15	Boxing flange "Type B" upper brace connector	
16	Boxing web "Type B" upper brace connector	
1x	MIC-SB-MA connector	304816
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

17	Boxing flange "Type C" upper brace connector	
18	Boxing web "Type C" upper brace connector	
1x	MIC-SC-MA connector	304815
	Contains connector and all through bolts	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

1	Boxing flange "Type A" upper brace connector	
2	Boxing web "Type A" upper brace connector	
1x	MIC-S90-A connector	304812
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

3	Boxing flange "Type B" upper brace connector	
4	Boxing web "Type B" upper brace connector	
1x	MIC-S90-B connector	304813
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

13	Boxing flange "Type A" upper brace connector	
14	Boxing web "Type A" upper brace connector	
1x	MIC-SA-MA connector	304815
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

5	Boxing flange "Type C" upper brace connector	
6	Boxing web "Type C" upper brace connector	
1x	MIC-S90-C connector	304814
	Contains connector and all through bolts	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

12	Pivot connector MIC-U-MA MI-90 fixed on MI-90	
1x	MIC-U-MA	304806
	incl. all connectivity material	

9	Brackets MIC-S90-C "Type C"	
	Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S90-C-500 bracket	267784
	MIC-S90-C-750 bracket	267785
	MIC-S90-C-1000 bracket	267786
	MIC-S90-C-1500 bracket	267787
	MIC-S90-C-2000 bracket	267788

8	Brackets MIC-S90-B "Type B"	
	Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S90-B-500 bracket	267779
	MIC-S90-B-750 bracket	267780
	MIC-S90-B-1000 bracket	267781
	MIC-S90-B-1500 bracket	267782
	MIC-S90-B-2000 bracket	267783

7	Brackets MIC-S90-A "Type A"	
	Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S90-A-500 bracket	267774
	MIC-S90-A-750 bracket	267775
	MIC-S90-A-1000 bracket	267776
	MIC-S90-A-1500 bracket	267777
	MIC-S90-A-2000 bracket	267778

10	Girders MI-90	
	MI-90 3m	304798
	MI-90 6m	304799

11	Plastic end cap MIA-EC-90 end cap	
1x	MIA-EC-90 plastic endcap	432077

Application description	Application	Product lines	Base material
MI System - Ceiling Tree L,T On Steel		MI System	Steel
General comments		Clamps	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Ceiling Tree L,T On Steel - Boxed Beam Options - Vertical upright MI-120

17	Boxing flange "Type B" upper brace connector
18	Boxing web "Type B" upper brace connector
1x	MIC-SB-MA connector 304816 Contains connector and all through bolts
1x	MIB-SB base plate 304822
4x	AM12x1000-HDG 8.8 th. rod 419103 threaded rods reflecting structural beam size
8x	M12-F-SL WS 3/4 lock nut 382897

19	Boxing flange "Type C" upper brace connector
20	Boxing web "Type C" upper brace connector
1x	MIC-SC-MA connector 304815 Contains connector and all through bolts
1x	MIB-SC base plate 304823
4x	AM12x1000-HDG 8.8 th. rod 419103 threaded rods reflecting structural beam size
8x	M12-F-SL WS 3/4 lock nut 382897

1	Boxing flange "Type A" upper connector
2	Boxing web "Type A" upper connector
1x	MIC-S120-A connector 304818 Contains connector and all through bolts
1x	MIB-SA base plate 304821
4x	AM12x1000-HDG 8.8 th. rod 419103 threaded rods reflecting structural beam size
8x	M12-F-SL WS 3/4 lock nut 382897

3	Boxing flange "Type B" upper connector
4	Boxing web "Type B" upper connector
1x	MIC-S120-B connector 304819 Contains connector and all through bolts
1x	MIB-SB base plate 304822
4x	AM12x1000-HDG 8.8 th. rod 419103 threaded rods reflecting structural beam size
8x	M12-F-SL WS 3/4 lock nut 382897

5	Boxing flange "Type C" upper connector
6	Boxing web "Type C" upper connector
1x	MIC-S120-C connector 304820 Contains connector and all through bolts
1x	MIB-SC base plate 304823
4x	AM12x1000-HDG 8.8 th. rod 419103 threaded rods reflecting structural beam size
8x	M12-F-SL WS 3/4 lock nut 382897

15	Boxing flange "Type A" upper brace connector
16	Boxing web "Type A" upper brace connector
1x	MIC-SA-MA connector 304815 Contains connector and all through bolts
1x	MIB-SA base plate 304821
4x	AM12x1000-HDG 8.8 th. rod 419103 threaded rods reflecting structural beam size
8x	M12-F-SL WS 3/4 lock nut 382897

14	Pivot connector MIC-U-MA MI-90 fixed in MI-90
1x	MIC-U-MA 304806 incl. all connectivity material

9	Brackets MIC-S90-C "Type C" Steel brackets
Bracket (Cantilever arm)	
1x	MIC-S120-C-500 bracket 270463
	MIC-S120-C-750 bracket 270464
	MIC-S120-C-1000 bracket 270465
	MIC-S120-C-1500 bracket 270466
	MIC-S120-C-2000 bracket 270467

8	Brackets MIC-S120-B "Type B" Steel brackets
Bracket (Cantilever arm)	
1x	MIC-S120-B-500 bracket 267799
	MIC-S120-B-750 bracket 270459
	MIC-S120-B-1000 bracket 270460
	MIC-S120-B-1500 bracket 270461
	MIC-S120-B-2000 bracket 270462

7	Brackets MIC-S120-A "Type A" Steel brackets
Bracket (Cantilever arm)	
1x	MIC-S120-A-500 bracket 267794
	MIC-S120-A-750 bracket 267795
	MIC-S120-A-1000 bracket 267796
	MIC-S120-A-1500 bracket 267797
	MIC-S120-A-2000 bracket 267798

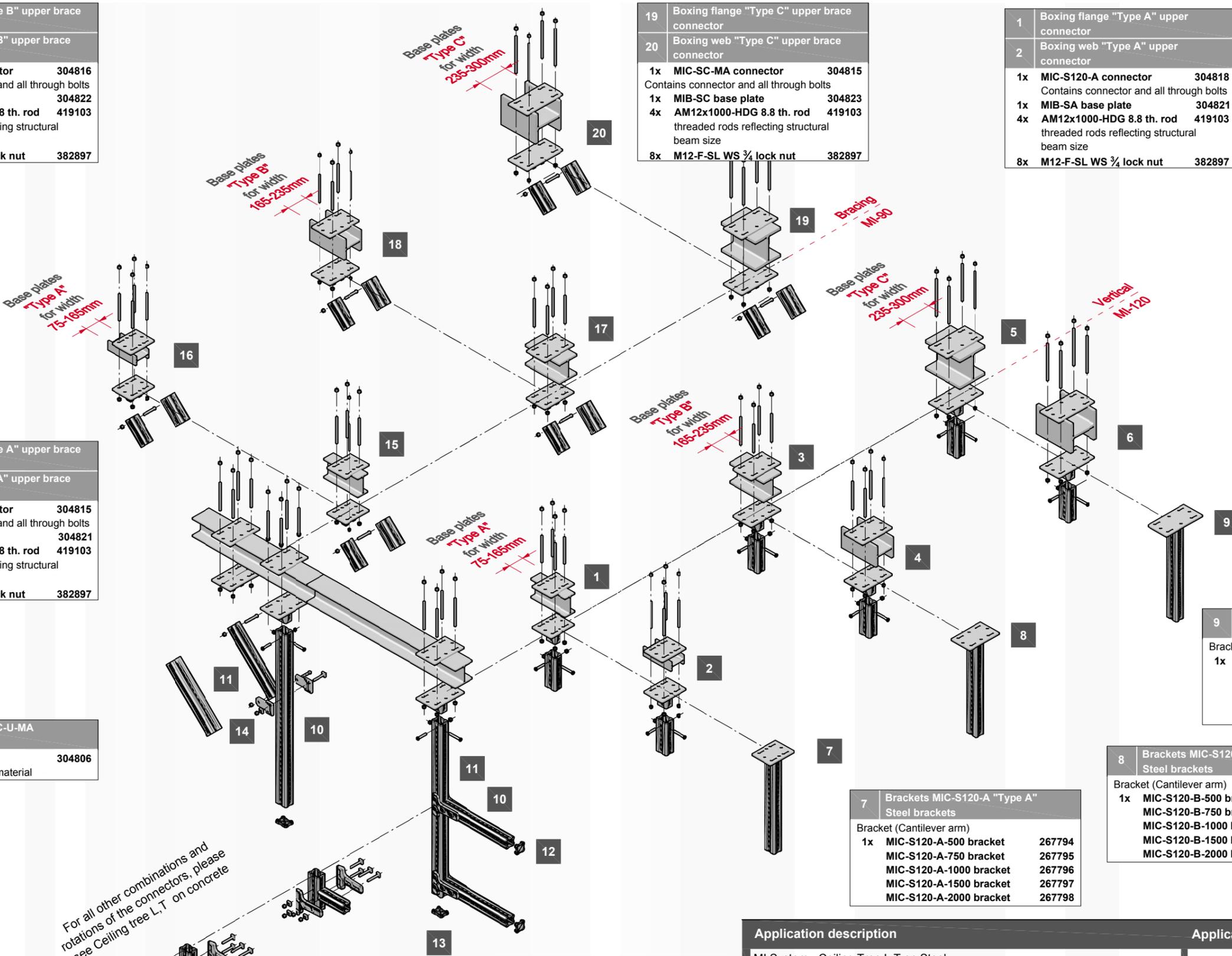
10	Girders MI-90
	MI-90 3m girder 304798
	MI-90 6m girder 304799

11	Girders MI-120
	MI-120 3m girder 304800
	MI-120 6m girder 304801

12	Plastic end cap MIA-EC-90 end cap
1x	MIA-EC-90 plastic endcap 432077

13	Plastic end cap MIA-EC-120 end cap
1x	MIA-EC-120 plastic endcap 432078

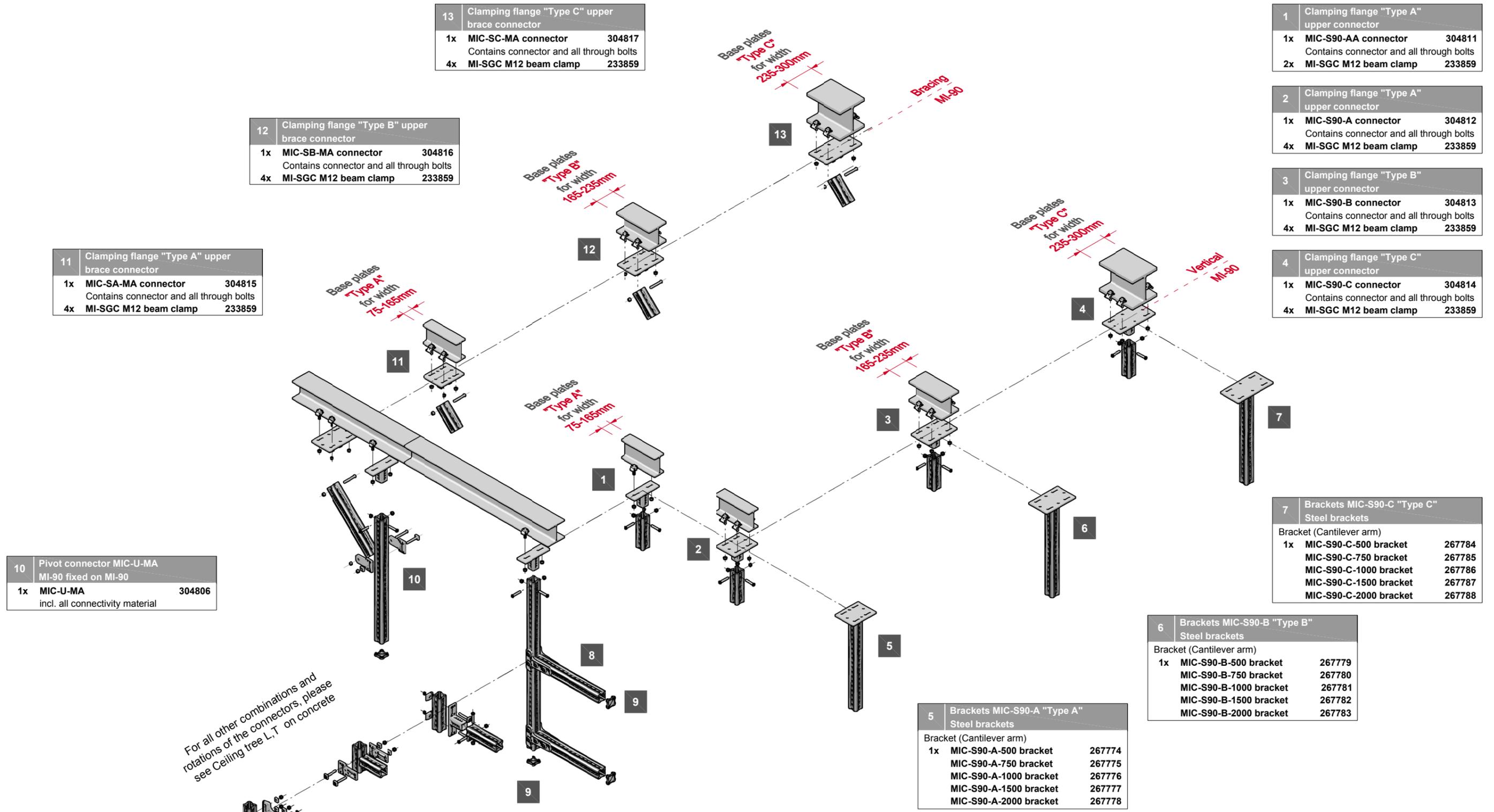
For all other combinations and rotations of the connectors, please see Ceiling tree L,T on concrete



Application description	Application	Product lines	Base material
MI System - Ceiling Tree L,T on Steel		MI System	Steel
General comments		Clamps	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Ceiling Tree L,T On Steel - Clamped Beam Options - Vertical upright MI-90



11	Clamping flange "Type A" upper brace connector	
1x	MIC-SA-MA connector	304815
Contains connector and all through bolts		
4x	MI-SGC M12 beam clamp	233859

12	Clamping flange "Type B" upper brace connector	
1x	MIC-SB-MA connector	304816
Contains connector and all through bolts		
4x	MI-SGC M12 beam clamp	233859

13	Clamping flange "Type C" upper brace connector	
1x	MIC-SC-MA connector	304817
Contains connector and all through bolts		
4x	MI-SGC M12 beam clamp	233859

10	Pivot connector MIC-U-MA MI-90 fixed on MI-90	
1x	MIC-U-MA	304806
incl. all connectivity material		

1	Clamping flange "Type A" upper connector	
1x	MIC-S90-AA connector	304811
Contains connector and all through bolts		
2x	MI-SGC M12 beam clamp	233859

2	Clamping flange "Type A" upper connector	
1x	MIC-S90-A connector	304812
Contains connector and all through bolts		
4x	MI-SGC M12 beam clamp	233859

3	Clamping flange "Type B" upper connector	
1x	MIC-S90-B connector	304813
Contains connector and all through bolts		
4x	MI-SGC M12 beam clamp	233859

4	Clamping flange "Type C" upper connector	
1x	MIC-S90-C connector	304814
Contains connector and all through bolts		
4x	MI-SGC M12 beam clamp	233859

7	Brackets MIC-S90-C "Type C" Steel brackets	
Bracket (Cantilever arm)		
1x	MIC-S90-C-500 bracket	267784
	MIC-S90-C-750 bracket	267785
	MIC-S90-C-1000 bracket	267786
	MIC-S90-C-1500 bracket	267787
	MIC-S90-C-2000 bracket	267788

6	Brackets MIC-S90-B "Type B" Steel brackets	
Bracket (Cantilever arm)		
1x	MIC-S90-B-500 bracket	267779
	MIC-S90-B-750 bracket	267780
	MIC-S90-B-1000 bracket	267781
	MIC-S90-B-1500 bracket	267782
	MIC-S90-B-2000 bracket	267783

5	Brackets MIC-S90-A "Type A" Steel brackets	
Bracket (Cantilever arm)		
1x	MIC-S90-A-500 bracket	267774
	MIC-S90-A-750 bracket	267775
	MIC-S90-A-1000 bracket	267776
	MIC-S90-A-1500 bracket	267777
	MIC-S90-A-2000 bracket	267778

8	Girders MI-90	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

9	Plastic end cap MIA-EC-90 end cap	
1x	MIA-EC-90 plastic endcap	432077

For all other combinations and rotations of the connectors, please see Ceiling tree L,T on concrete

Application description	Application	Product lines	Base material
MI System - Ceiling Tree L,T On Steel		MI System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Ceiling Tree L,T On Steel - Clamped Beam Options - Vertical upright MI-120

For all other combinations and rotations of the connectors, please see Ceiling tree L,T on concrete

14	Clamping flange "Type C" upper brace connector
1x	MIC-SC-MA connector 304817 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

13	Clamping flange "Type B" upper brace connector
1x	MIC-SB-MA connector 304816 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

12	Clamping flange "Type A" upper brace connector
1x	MIC-SA-MA connector 304815 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

11	Pivot connector MIC-U-MA MI-90 fixed on MI-120
1x	MIC-U-MA 304806 incl. all connectivity material

1	Clamping flange "Type A" upper connector
1x	MIC-S120-A connector 304818 Contains connector and all through bolts
2x	MI-SGC M12 beam clamp 233859

2	Clamping flange "Type B" upper connector
1x	MIC-S120-B connector 304819 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

3	Clamping flange "Type C" upper connector
1x	MIC-S120-C connector 304820 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

6	Brackets MIC-S90-C "Type C" Steel brackets
Bracket (Cantilever arm)	
1x	MIC-S120-C-500 bracket 270463
	MIC-S120-C-750 bracket 270464
	MIC-S120-C-1000 bracket 270465
	MIC-S120-C-1500 bracket 270466
	MIC-S120-C-2000 bracket 270467

5	Brackets MIC-S120-B "Type B" Steel brackets
Bracket (Cantilever arm)	
1x	MIC-S120-B-500 bracket 267799
	MIC-S120-B-750 bracket 270459
	MIC-S120-B-1000 bracket 270460
	MIC-S120-B-1500 bracket 270461
	MIC-S120-B-2000 bracket 270462

4	Brackets MIC-S120-A "Type A" Steel brackets
Bracket (Cantilever arm)	
1x	MIC-S120-A-500 bracket 267794
	MIC-S120-A-750 bracket 267795
	MIC-S120-A-1000 bracket 267796
	MIC-S120-A-1500 bracket 267797
	MIC-S120-A-2000 bracket 267798

7	Girders MI-90
	MI-90 3m girder 304798
	MI-90 6m girder 304799

8	Girders MI-120
	MI-120 3m girder 304800
	MI-120 6m girder 304801

9	Plastic end cap MIA-EC-90 end cap
1x	MIA-EC-90 plastic endcap 432077

10	Plastic end cap MIA-EC-120 end cap
1x	MIA-EC-120 plastic endcap 432078

Application description	Application	Product lines	Base material
MI System - Ceiling Tree L,T On Steel		MI System	Steel
General comments		Clamps	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Ceiling Tree L,T On Steel - Boxed Beam Options - Vertical upright MIQ-90

15	Clamping flange "Type A" upper brace connector	
1x	MIC-SA-MA connector	304815
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

16	Clamping flange "Type B" upper brace connector	
1x	MIC-SB-MA connector	304816
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

6	Pivot connector MIC-U-MA MIQ-90 fixed on MIQ-90	
1x	MIC-U-MA	304806
	incl. all connectivity material	

1	Connector MIC-90-LH MIQ-90 fixed on MIQ-90	
	Angle does not include all connectivity material	
1x	MIC-90-LH	2048107
	Connectivity material ordered separately	
4x	MIA-EH90 easy hand screw	304887
4x	MIA-TP serrated plate	305707
4x	M12-F-SL-WS ¾ lock nut	382897

2	Single MQK-F brackets fixed to MIQ girder	
	T-bolts	
2x	MIQA-T t-bolt incl. nut	2120142
	MQK-F bracket	
1x	MQK-21/300-F bracket	304113
	MQK-21/450-F bracket	304114
	MQK-41/300-F bracket	304115
	MQK-41/450-F bracket	304116
	MQK-41/600-F bracket	304117
	MQK-41/1000-F bracket	304118
	MQK-72/450-F bracket	304122
	MQK-72/600-F bracket	304123
	Plastic endcaps (depends on size of channel)	
	MQZ-E21 endcap	370598
	MQZ-E31 endcap	369686
	MQZ-E41 endcap	369685

3	Double MQK-F brackets fixed to MIQ girder	
	T-bolts	
2x	MIQA-T t-bolt incl. nut	2120142
	MQK-F bracket	
1x	MQK-21 D/300-F bracket	304124
	MQK-21 D/450-F bracket	304125
	MQK-21 D/600-F bracket	304126
	MQK-41 D/1000-F bracket	304127
	Plastic endcaps (depends on size of channel)	
	MQZ-E21 endcap	370598
	MQZ-E41 endcap	369685

11	Boxing flange "Type B" upper connector Steel beam parallel to trapeze	
1x	MIQC-S90-BP connector	2120273
	Contains connector and all through bolts	
1x	MIQB-SB base plate	2123566
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

13	Boxing flange "Type B" upper connector Steel beam perpendicular to trapeze	
1x	MIQC-S90-BC connector	2120272
	Contains connector and all through bolts	
1x	MIQB-SB base plate	2123566
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

7	Boxing flange "Type A" upper connector Steel beam parallel to trapeze	
1x	MIQC-S90-AP connector	2120271
	Contains connector and all through bolts	
1x	MIQB-SA base plate	2123565
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

9	Boxing flange "Type A" upper connector Steel beam perpendicular to trapeze	
1x	MIQC-S90-AC connector	2120270
	Contains connector and all through bolts	
1x	MIQB-SA base plate	2123565
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

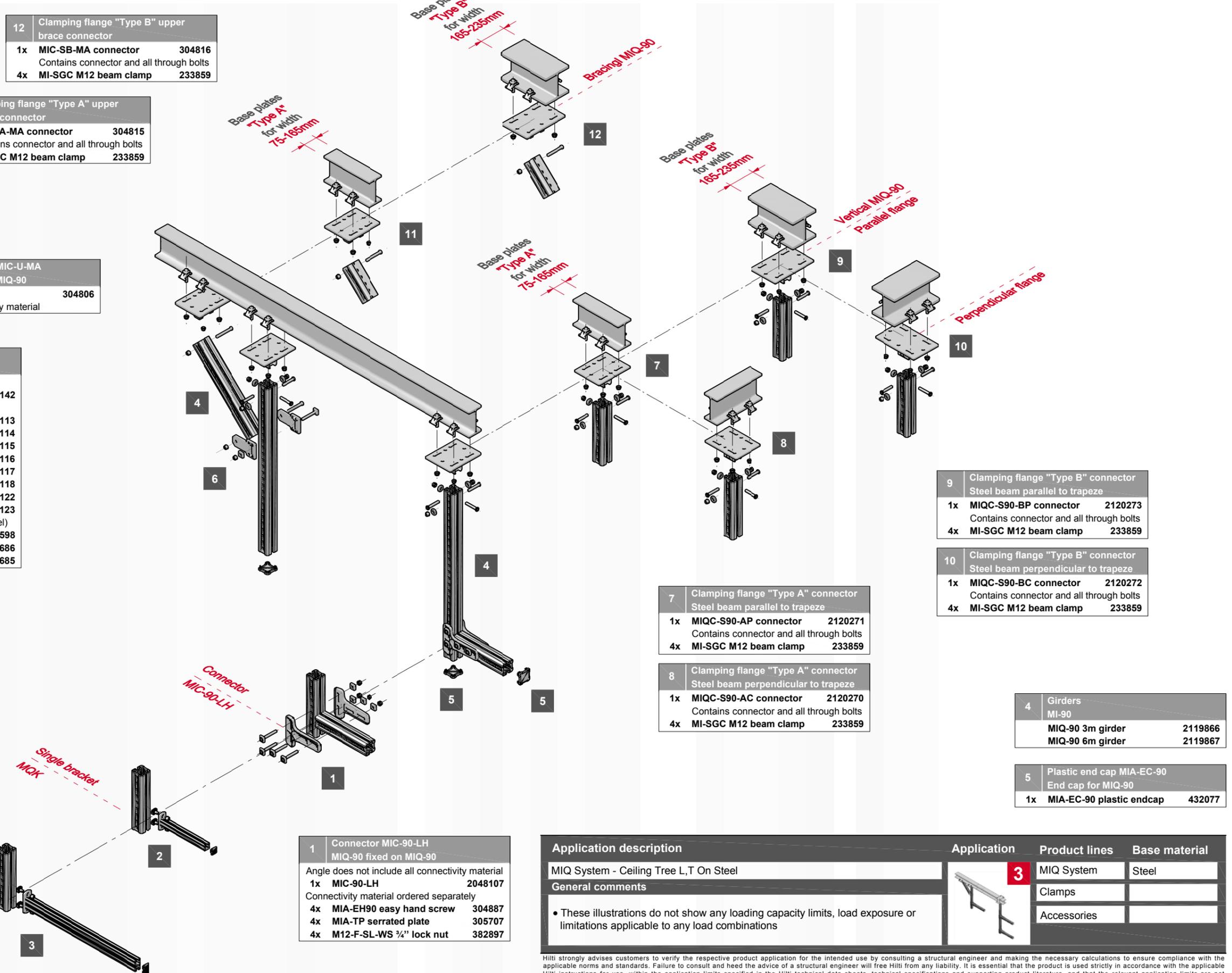
4	Girders MI-90	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

5	Plastic end cap MIA-EC-90 End cap for MIQ-90	
1x	MIA-EC-90 plastic endcap	432077

Application description	Application	Product lines	Base material
MIQ System - Ceiling Tree L,T On Steel	 3	MIQ System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Ceiling Tree L,T On Steel - Clamped Beam Options - Vertical upright MIQ-90



12	Clamping flange "Type B" upper brace connector
1x	MIC-SB-MA connector 304816 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

11	Clamping flange "Type A" upper brace connector
1x	MIC-SA-MA connector 304815 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

6	Pivot connector MIC-U-MA MIQ-90 fixed on MIQ-90
1x	MIC-U-MA 304806 incl. all connectivity material

2	Single MQK-F brackets fixed to MIQ girder
T-bolts	
2x	MIQA-T t-bolt incl. nut 2120142
MQK-F bracket	
1x	MQK-21/300-F bracket 304113
	MQK-21/450-F bracket 304114
	MQK-41/300-F bracket 304115
	MQK-41/450-F bracket 304116
	MQK-41/600-F bracket 304117
	MQK-41/1000-F bracket 304118
	MQK-72/450-F bracket 304122
	MQK-72/600-F bracket 304123
Plastic endcaps (depends on size of channel)	
	MQZ-E21 endcap 370598
	MQZ-E31 endcap 369686
	MQZ-E41 endcap 369685

3	Double MQK-F brackets fixed to MIQ girder
T-bolts	
2x	MIQA-T t-bolt incl. nut 2120142
MQK-F bracket	
1x	MQK-21 D/300-F bracket 304124
	MQK-21 D/450-F bracket 304125
	MQK-21 D/600-F bracket 304126
	MQK-41 D/1000-F bracket 304127
Plastic endcaps (depends on size of channel)	
	MQZ-E21 endcap 370598
	MQZ-E41 endcap 369685

9	Clamping flange "Type B" connector Steel beam parallel to trapeze
1x	MIQC-S90-BP connector 2120273 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

10	Clamping flange "Type B" connector Steel beam perpendicular to trapeze
1x	MIQC-S90-BC connector 2120272 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

7	Clamping flange "Type A" connector Steel beam parallel to trapeze
1x	MIQC-S90-AP connector 2120271 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

8	Clamping flange "Type A" connector Steel beam perpendicular to trapeze
1x	MIQC-S90-AC connector 2120270 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

4	Girders MI-90
	MIQ-90 3m girder 2119866
	MIQ-90 6m girder 2119867

5	Plastic end cap MIA-EC-90 End cap for MIQ-90
1x	MIA-EC-90 plastic endcap 432077

1	Connector MIC-90-LH MIQ-90 fixed on MIQ-90
Angle does not include all connectivity material	
1x	MIC-90-LH 2048107
Connectivity material ordered separately	
4x	MIA-EH90 easy hand screw 304887
4x	MIA-TP serrated plate 305707
4x	M12-F-SL-WS 3/4" lock nut 382897

Application description			
MIQ System - Ceiling Tree L,T On Steel			
General comments			
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations			
Application	Product lines	Base material	
3	MIQ System	Steel	
	Clamps		
	Accessories		

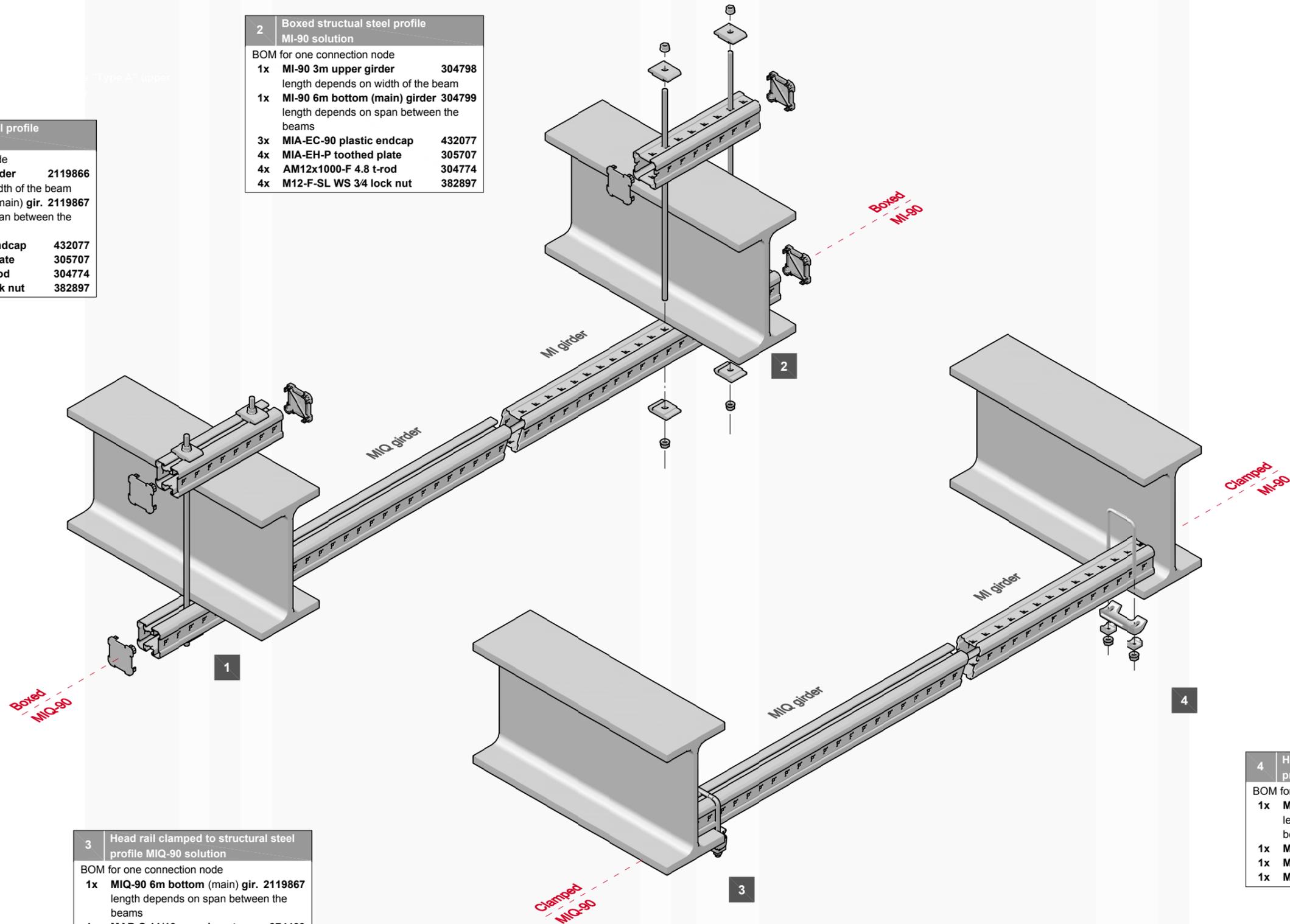
Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Head Rail On Steel - Options

MI-90/MIQ-90 Options

1	Boxed structural steel profile	MIQ-90 solution
BOM for one connection node		
1x	MIQ-90 3m upper girder	2119866
length depends on width of the beam		
1x	MIQ-90 6m bottom (main) gir. 2119867	
length depends on span between the beams		
3x	MIA-EC-90 plastic endcap	432077
4x	MIA-EH-P toothed plate	305707
4x	AM12x1000-F 4.8 t-rod	304774
4x	M12-F-SL WS 3/4 lock nut	382897

2	Boxed structural steel profile	MI-90 solution
BOM for one connection node		
1x	MI-90 3m upper girder	304798
length depends on width of the beam		
1x	MI-90 6m bottom (main) girder 304799	
length depends on span between the beams		
3x	MIA-EC-90 plastic endcap	432077
4x	MIA-EH-P toothed plate	305707
4x	AM12x1000-F 4.8 t-rod	304774
4x	M12-F-SL WS 3/4 lock nut	382897



3	Head rail clamped to structural steel profile MIQ-90 solution
BOM for one connection node	
1x	MIQ-90 6m bottom (main) gir. 2119867
length depends on span between the beams	
1x	MAB-S 11/13 securing strap 374409
1x	MI-DGC 90 beam clamp 233860
1x	MIA-EC-90 plastic endcap 432077

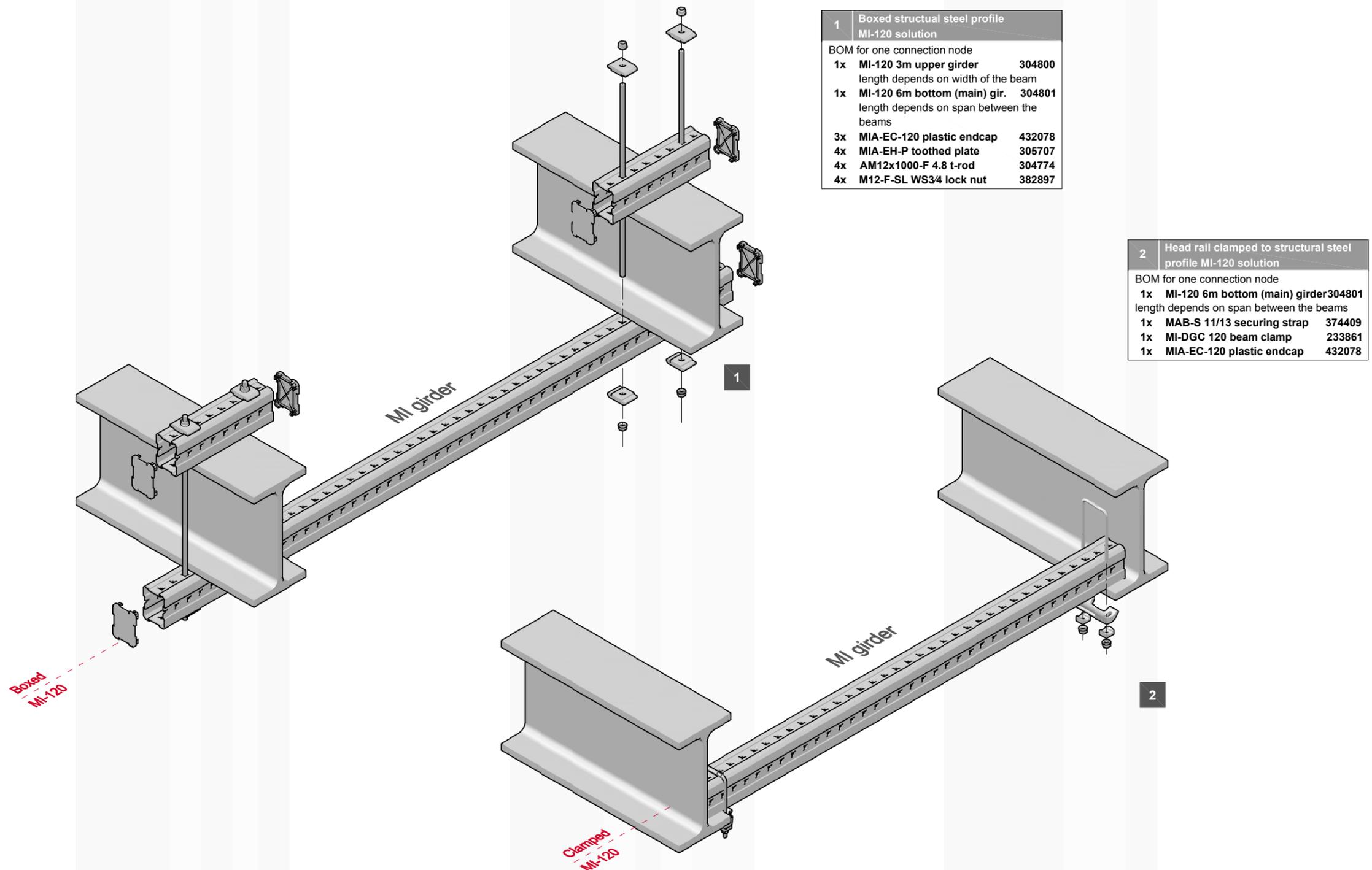
4	Head rail clamped to structural steel profile MI-90 solution
BOM for one connection node	
1x	MI-90 6m bottom (main) girder 304799
length depends on span between the beams	
1x	MAB-S 11/13 securing strap 374409
1x	MI-DGC 90 beam clamp 233860
1x	MIA-EC-90 plastic endcap 432077

Application description	Application	Product lines	Base material
MI/MIQ System - Head Rail On Steel	4	MI/MIQ System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Head Rail On Steel - Options

MI-120 Options



1 Boxed structural steel profile MI-120 solution		
BOM for one connection node		
1x MI-120 3m upper girder	304800	
length depends on width of the beam		
1x MI-120 6m bottom (main) gir.	304801	
length depends on span between the beams		
3x MIA-EC-120 plastic endcap	432078	
4x MIA-EH-P toothed plate	305707	
4x AM12x1000-F 4.8 t-rod	304774	
4x M12-F-SL WS3/4 lock nut	382897	

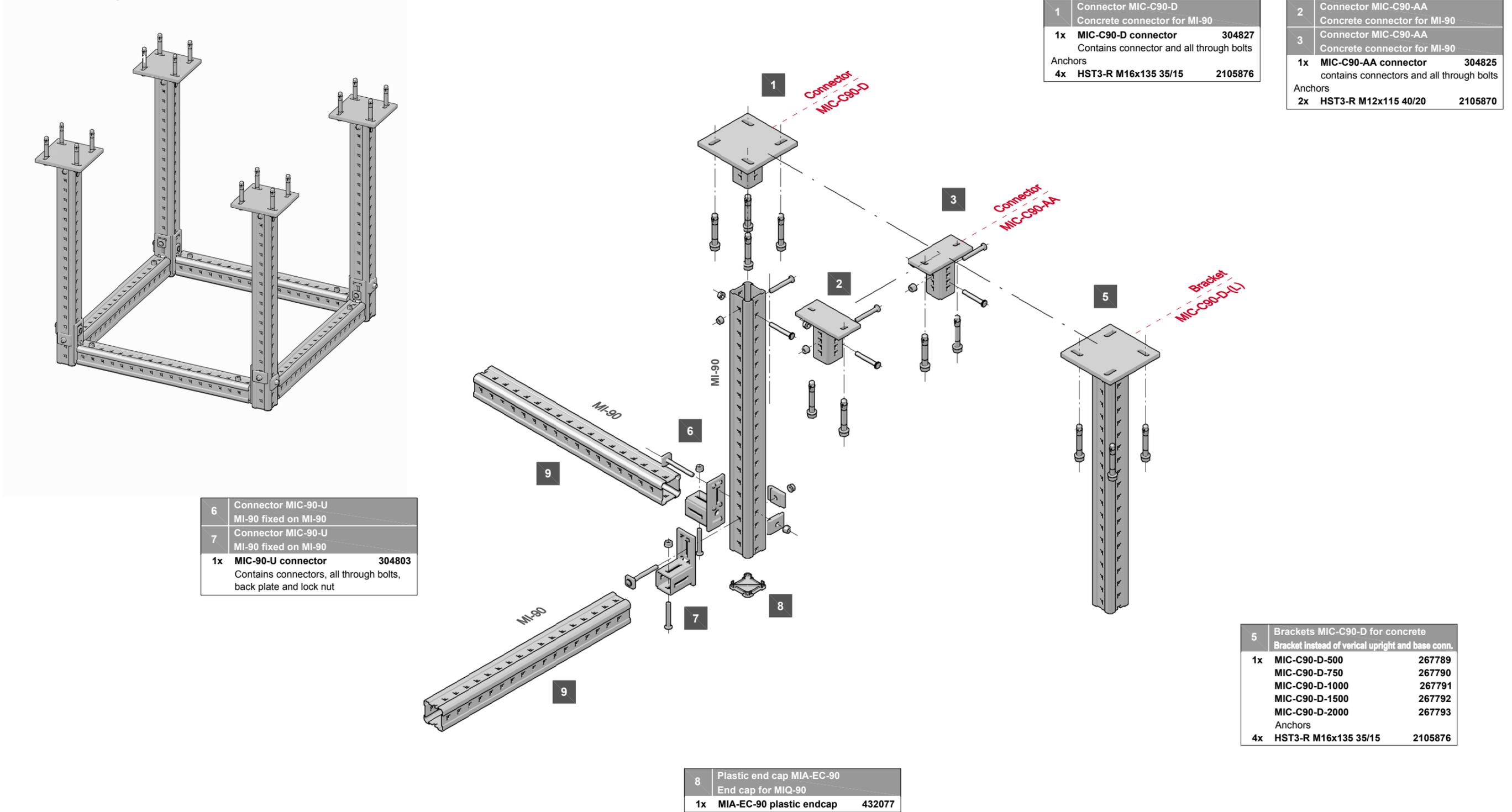
2 Head rail clamped to structural steel profile MI-120 solution		
BOM for one connection node		
1x MI-120 6m bottom (main) girder	304801	
length depends on span between the beams		
1x MAB-S 11/13 securing strap	374409	
1x MI-DGC 120 beam clamp	233861	
1x MIA-EC-120 plastic endcap	432078	

Application description	Application	Product lines	Base material
MI System - Head Rail On Steel	 4	MI System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Ceiling 3D Cube On Concrete - Options

Horizontal MI-90 Options



1	Connector MIC-C90-D Concrete connector for MI-90	
1x	MIC-C90-D connector	304827
Contains connector and all through bolts		
Anchors		
4x	HST3-R M16x135 35/15	2105876

2	Connector MIC-C90-AA Concrete connector for MI-90	
3	Connector MIC-C90-AA Concrete connector for MI-90	
1x	MIC-C90-AA connector	304825
contains connectors and all through bolts		
Anchors		
2x	HST3-R M12x115 40/20	2105870

6	Connector MIC-90-U MI-90 fixed on MI-90	
7	Connector MIC-90-U MI-90 fixed on MI-90	
1x	MIC-90-U connector	304803
Contains connectors, all through bolts, back plate and lock nut		

5	Brackets MIC-C90-D for concrete Bracket instead of vertical upright and base conn.	
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
Anchors		
4x	HST3-R M16x135 35/15	2105876

8	Plastic end cap MIA-EC-90 End cap for MIQ-90	
1x	MIA-EC-90 plastic endcap	432077

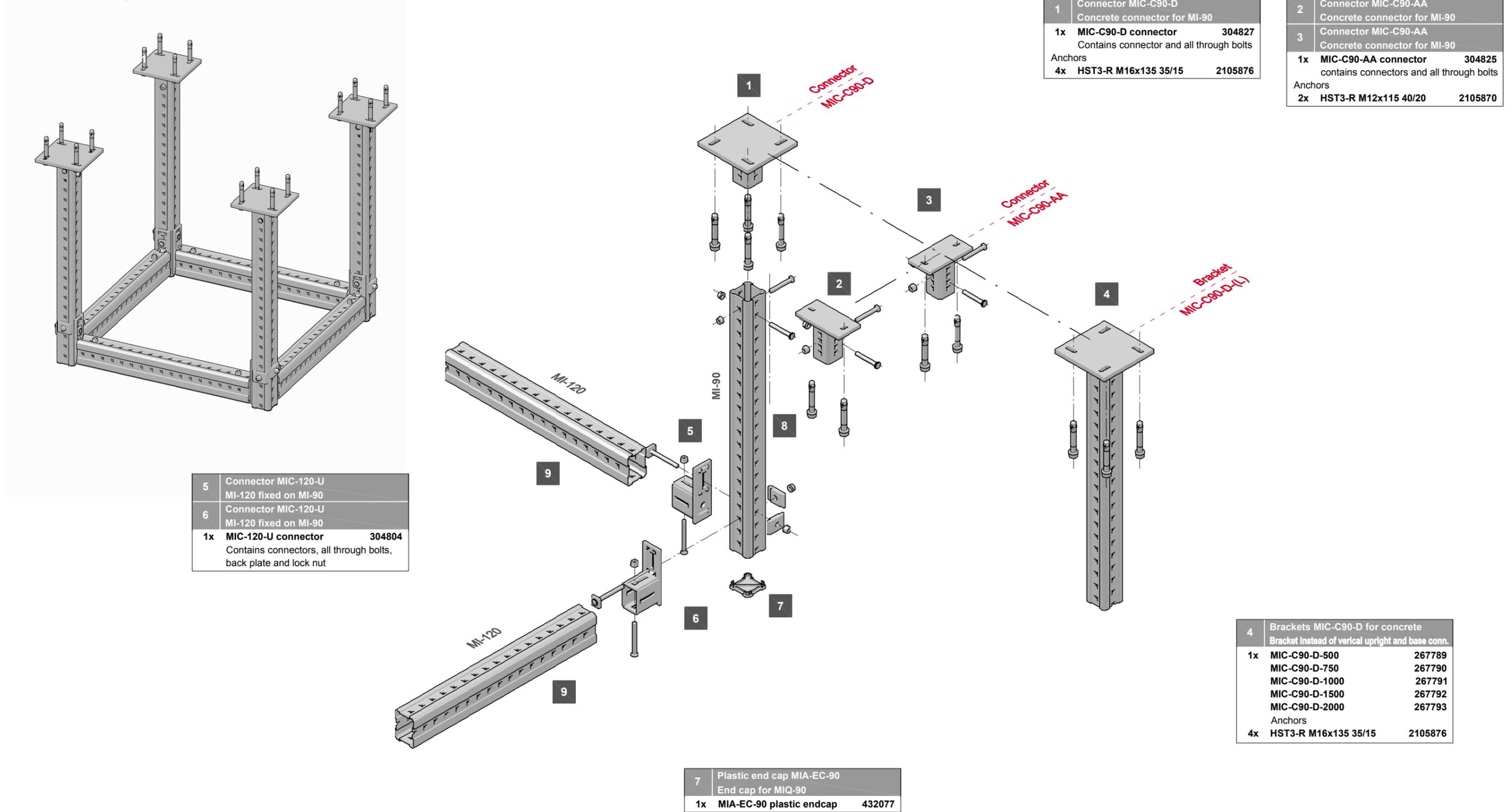
9	Girders MI-90	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

Application description	Application	Product lines	Base material
MI System - Ceiling 3D Cube On Concrete	 5	MI System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Ceiling 3D Cube On Concrete - Options

Horizontal MI-120 Options



5	Connector MIC-120-U MI-120 fixed on MI-90	
6	Connector MIC-120-U MI-120 fixed on MI-90	
1x	MIC-120-U connector	304804
Contains connectors, all through bolts, back plate and lock nut		

1	Connector MIC-C90-D Concrete connector for MI-90	
1x	MIC-C90-D connector	304827
Contains connector and all through bolts		
Anchors		
4x	HST3-R M16x135 35/15	2105876

2	Connector MIC-C90-AA Concrete connector for MI-90	
3	Connector MIC-C90-AA Concrete connector for MI-90	
1x	MIC-C90-AA connector	304825
contains connectors and all through bolts		
Anchors		
2x	HST3-R M12x115 40/20	2105870

4	Brackets MIC-C90-D for concrete Bracket instead of vertical upright and base conn.	
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
Anchors		
4x	HST3-R M16x135 35/15	2105876

7	Plastic end cap MIA-EC-90 End cap for MIQ-90	
1x	MIA-EC-90 plastic endcap	432077

8	Girders MI-90	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

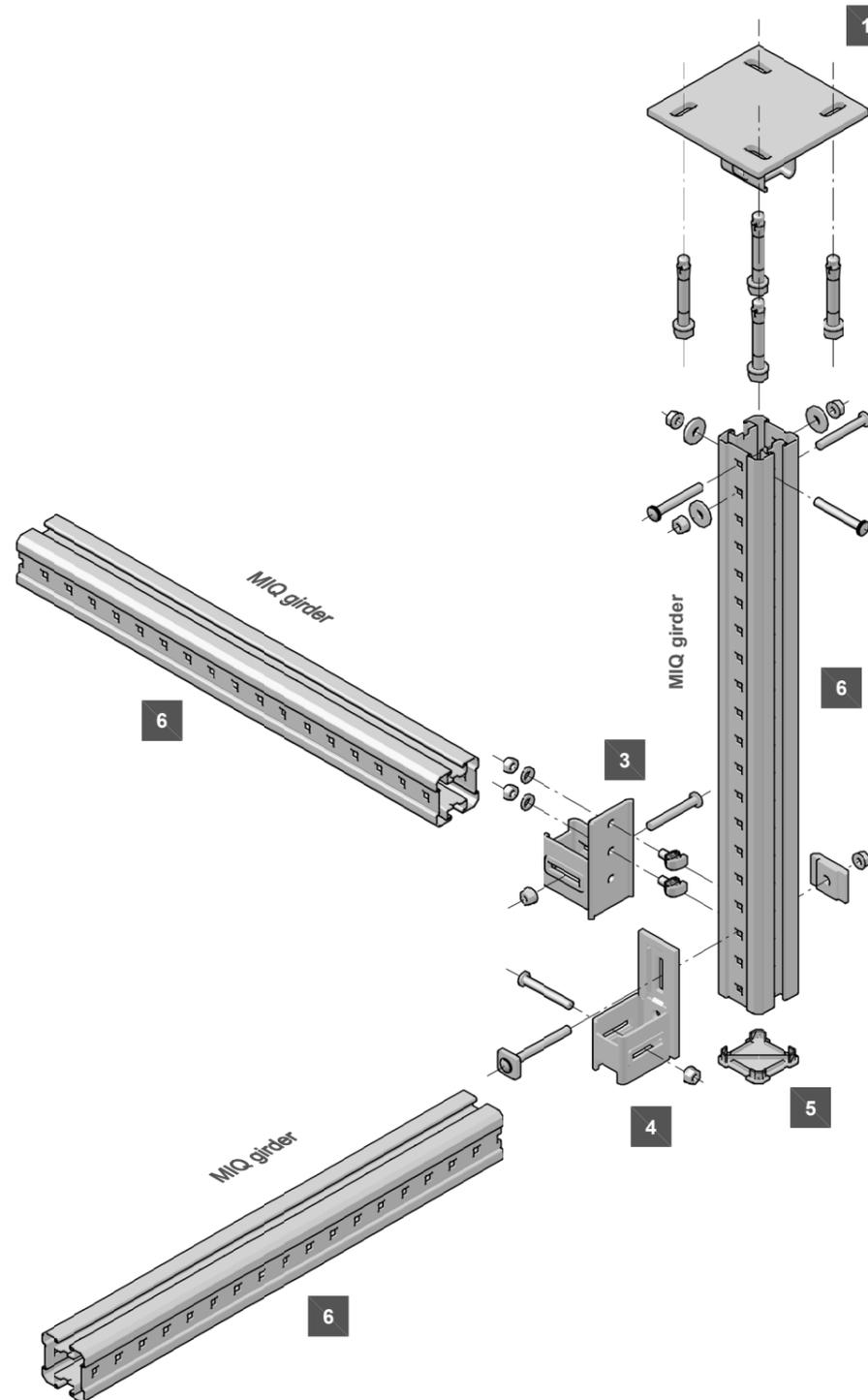
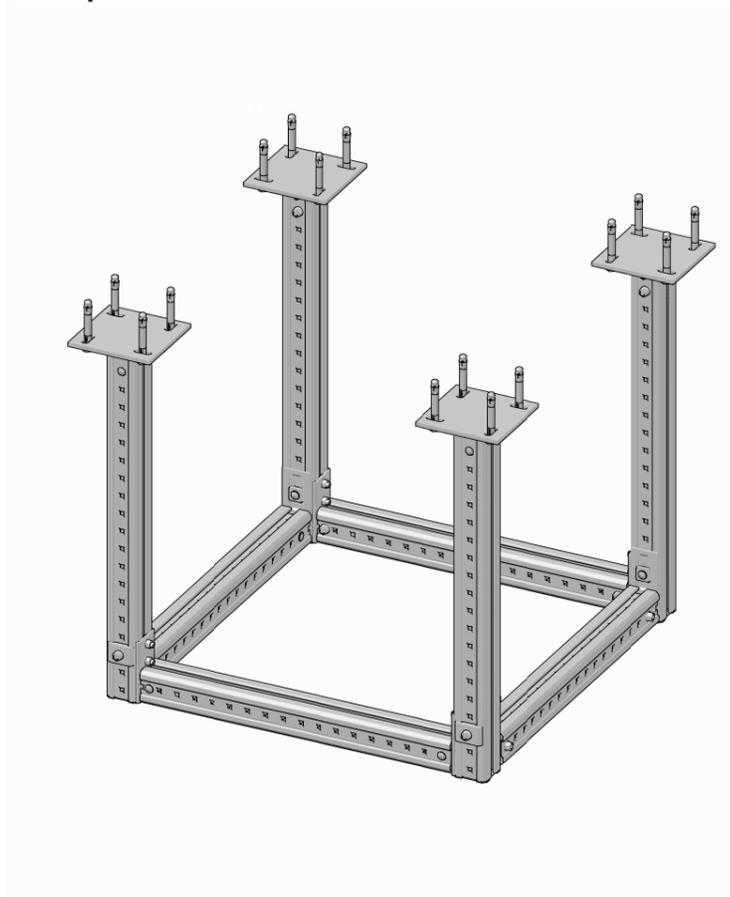
9	Girders MI-120	
	MI-120 3m girder	304800
	MI-120 6m girder	304801

Application description	Application	Product lines	Base material
MI System - Ceiling 3D Cube On Concrete	 5	MI System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Ceiling 3D Cube On Concrete - Options

MIQ-90 Options



1	Connector MIQC-C90 Concrete connector for MIQ-90	
1x	MIQC-C90 connector	2120144
Contains connector and all through bolts Anchors		
4x	HST3-R M16x135 35/15	2105876

3	Connector MIQC-90-HT MIQ-90 fixed on MIQ-90	
1x	MIQC-90-HT connector	2123881
contains connectors and all through bolts		

4	Connector MIQC-90-MI MIQ-90 fixed on rotated MIQ-90	
1x	MIQC-90-MI connector	2140257
contains connectors and all through bolts		

5	Plastic end cap MIA-EC-90 End cap for MIQ-90	
1x	MIA-EC-90 plastic endcap	432077

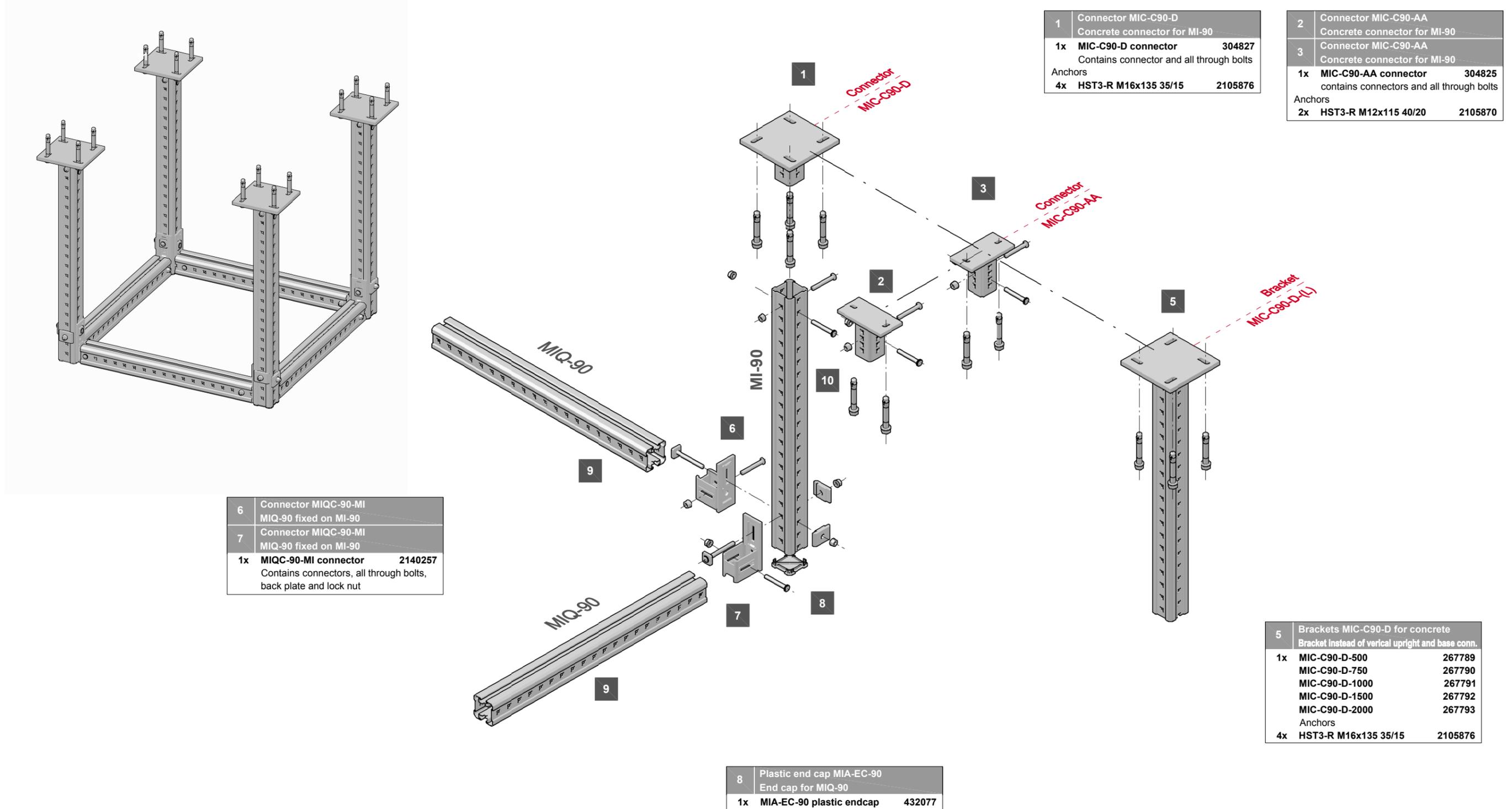
6	Girders MIQ-90	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

Application description	Application	Product lines	Base material
MIQ System - Ceiling 3D Cube On Concrete	 5	MIQ System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Ceiling 3D Cube On Concrete - Options

Horizontal MIQ-90 Options



1	Connector MIC-C90-D Concrete connector for MI-90	
1x	MIC-C90-D connector	304827
Contains connector and all through bolts		
Anchors	4x HST3-R M16x135 35/15	2105876

2	Connector MIC-C90-AA Concrete connector for MI-90	
3	Connector MIC-C90-AA Concrete connector for MI-90	
1x	MIC-C90-AA connector	304825
contains connectors and all through bolts		
Anchors	2x HST3-R M12x115 40/20	2105870

6	Connector MIQC-90-MI MIQ-90 fixed on MI-90	
7	Connector MIQC-90-MI MIQ-90 fixed on MI-90	
1x	MIQC-90-MI connector	2140257
Contains connectors, all through bolts, back plate and lock nut		

5	Brackets MIC-C90-D for concrete Bracket instead of vertical upright and base conn.	
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
Anchors	4x HST3-R M16x135 35/15	2105876

8	Plastic end cap MIA-EC-90 End cap for MIQ-90	
1x	MIA-EC-90 plastic endcap	432077

9	Girders MIQ-90	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

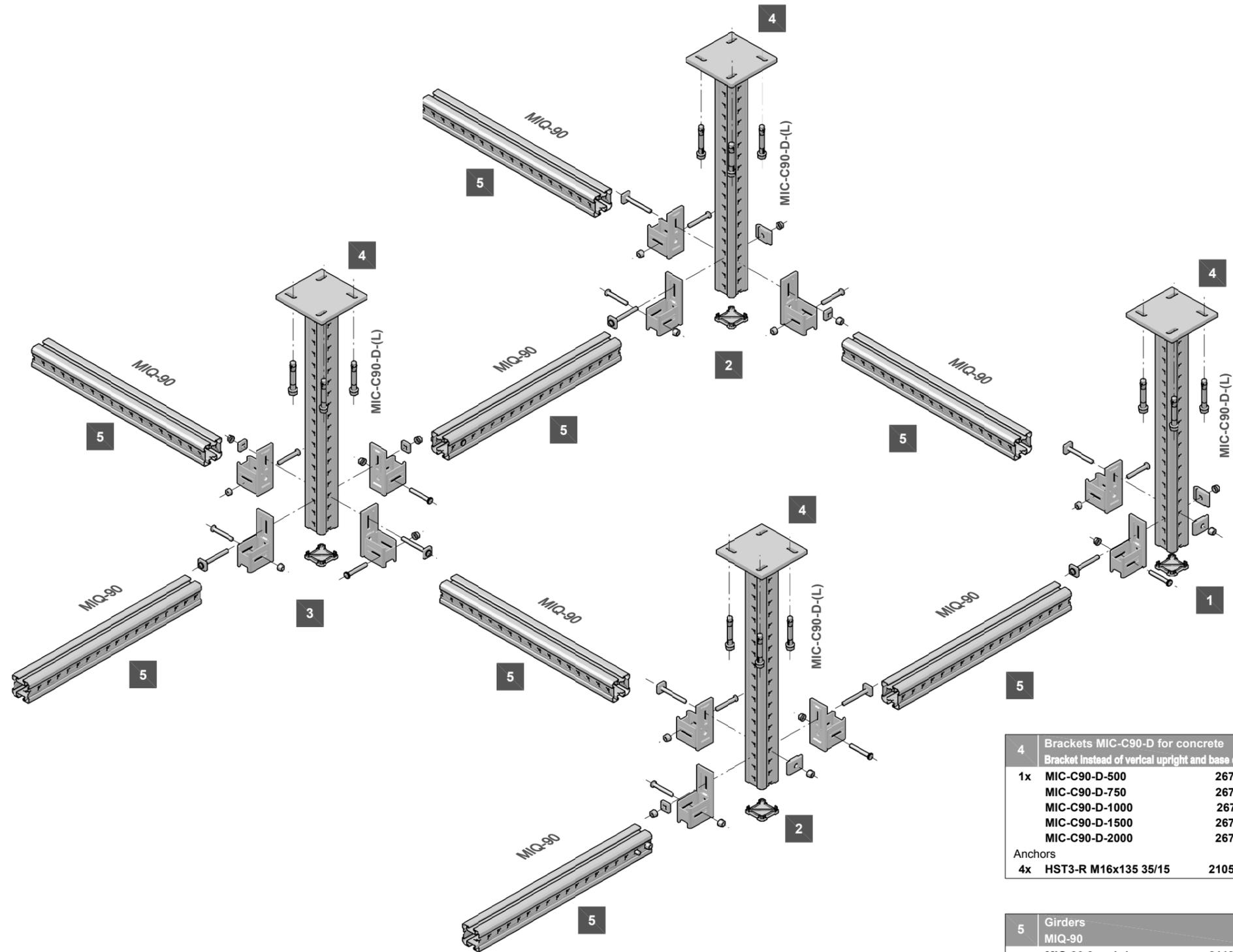
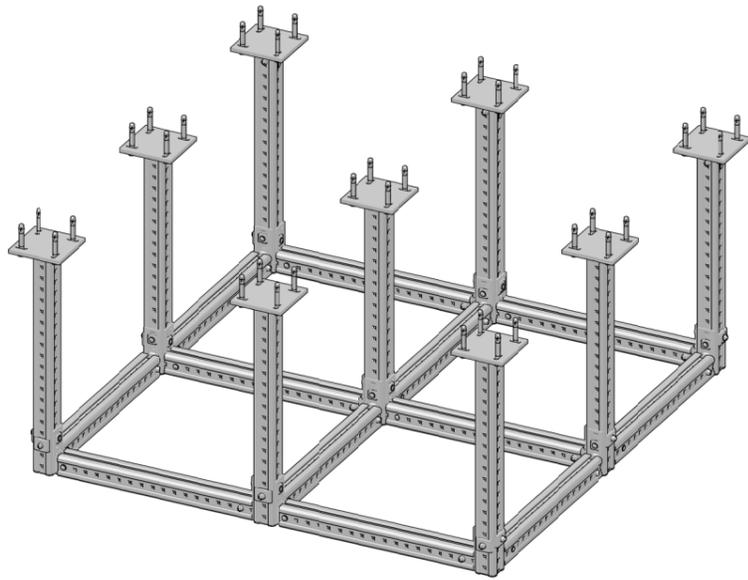
10	Girders MI-90	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

Application description	Application	Product lines	Base material
MI/MIQ System - Ceiling 3D Cube On Concrete		MI System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Ceiling 3D Cube On Concrete - Options

Horizontal MIQ-90 Options



1	Node with 2 girders - corner MIQ-90 fixed on MIC-C90 bracket	
2x	MIQ-90 girder	Various
1x	MIC-C90 bracket	Various
2x	MIQ-90-MI connector	2140257
	incl. all connectivity material	
1x	MIA-EC-90 plastic endcap	432077

2	Node with 3 girders MIQ-90 fixed on MIC-C90 bracket	
3x	MIQ-90 girder	Various
1x	MIC-C90 bracket	Various
3x	MIQ-90-MI connector	2140257
	1x MIA-EH90 + 2x MIA-EH-P + 1x M12-F-SL-WS 3/4" will remain unused	
1x	MIA-TP toothed plate	305707
1x	MIA-EC-90 plastic endcap	432077

3	Node with 4 girders MIQ-90 fixed on MIC-C90 bracket	
4x	MIQ-90 girder	Various
1x	MIC-C90 bracket	Various
4x	MIQ-90-MI connector	2140257
	2x MIA-EH90 + 4x MIA-EH-P + 2x M12-F-SL-WS 3/4" will remain unused	
2x	MIA-TP toothed plate	305707
1x	MIA-EC-90 plastic endcap	432077

4	Brackets MIC-C90-D for concrete Bracket instead of vertical upright and base conn.	
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
	Anchors	
4x	HST3-R M16x135 35/15	2105876

5	Girders MIQ-90	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

Application description	Application	Product lines	Base material
MI/MIQ System - Ceiling 3D Cube On Concrete	 5	MI/MIQ System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Bracket (Cantilever Arm) On Concrete - Options

1 Brackets MIC-C90-D Concrete brackets		
Bracket (Cantilever arm)		
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
Anchors		
4x	HST3-R M16x135 35/15	2105876

3 Girders MI-90		
1x	MI-90 3m girder	304798
	MI-90 6m girder	304799

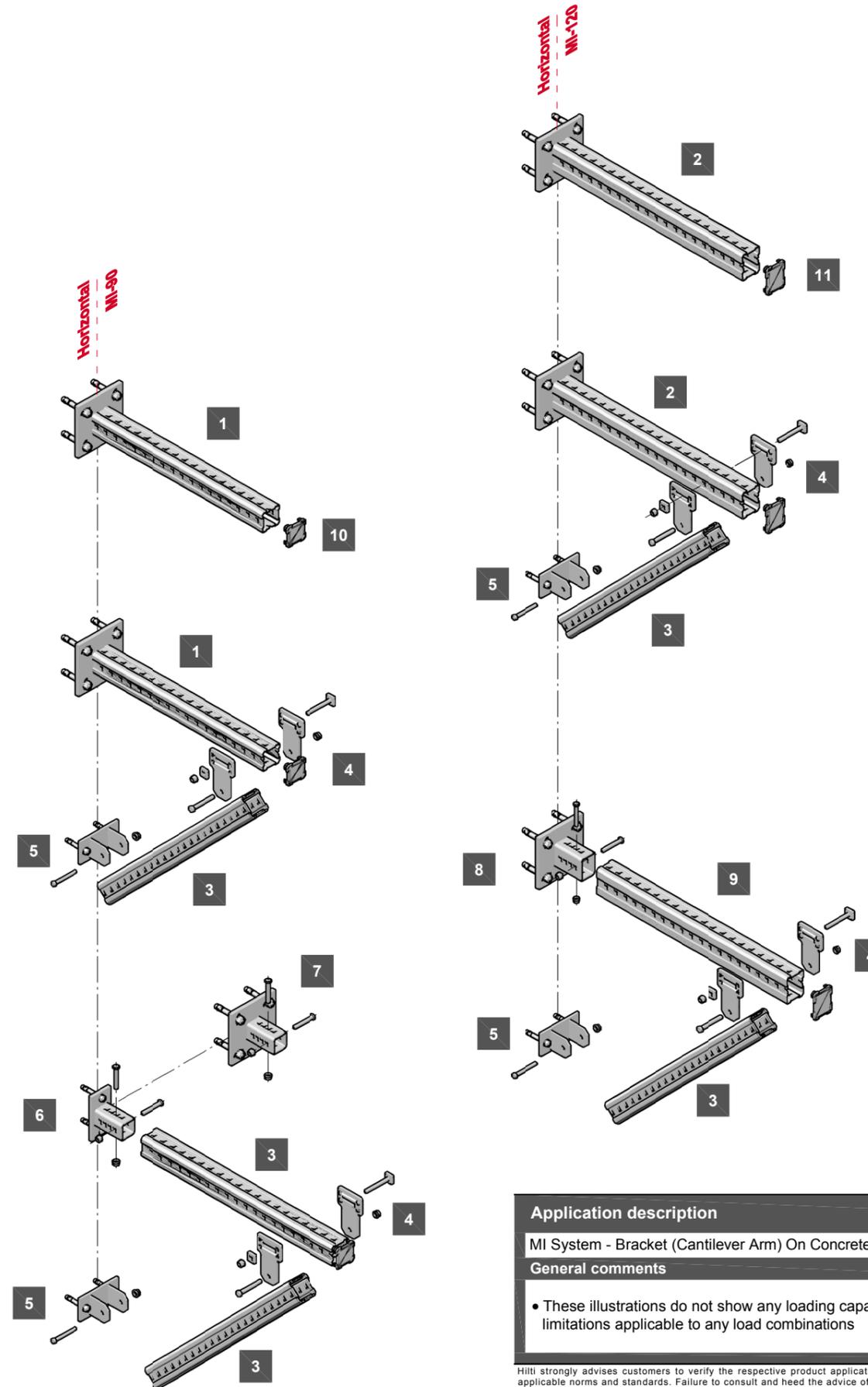
4 Pivot connector MIC-U-MA MI-90 fixed on MI-90		
1x	MIC-U-MA	304806
incl. all connectivity material		

5 Base material pivot connector MIC-CU-MA MI-90 fixed on MI-90		
1x	MIC-CU-MA	304828
incl. all connectivity material		
Anchors		
2x	HST3-R M12x115 40/20	2105870

6 Connector MIC-C90-AA Concrete connector for MI-90		
1x	MIC-C90-AA connector	304825
Contains connectors and all through bolts		
Anchors		
2x	HST3-R M12x115 40/20	2105870

7 Connector MIC-C90-D Concrete connector for MI-90		
1x	MIC-C90-D connector	304827
Contains connectors and all through bolts		
Anchors		
4x	HST3-R M16x135 35/15	2105876

10 Plastic end cap MIA-EC-90 End cap for MI-90		
1x	MIA-EC-90 plastic endcap	432077



2 Brackets MIC-C120-D Concrete brackets		
Bracket (Cantilever arm)		
1x	MIC-C120-D-500	270468
	MIC-C120-D-750	270469
	MIC-C120-D-1000	270470
	MIC-C120-D-1500	270471
	MIC-C120-D-2000	270472
Anchors		
4x	HST3-R M16x135 35/15	2105876

3 Girders MI-90		
1x	MI-90 3m girder	304798
	MI-90 6m girder	304799

4 Pivot connector MIC-U-MA MI-90 fixed on MI-90		
1x	MIC-U-MA	304806
incl. all connectivity material		

5 Base material pivot connector MIC-CU-MA MI-90 fixed on MI-90		
1x	MIC-CU-MA	304828
incl. all connectivity material		
Anchors		
2x	HST3-R M12x115 40/20	2105870

8 Connector MIC-C120-D Concrete connector for MI-120		
1x	MIC-C120-D connector	304829
Contains connector and all through bolts		
Anchors		
4x	HST3-R M16x135 35/15	2105876

9 Girders MI-120		
1x	MI-120 3m girder	304800
	MI-120 6m girder	304801

11 Plastic end cap MIA-EC-120 End cap for MI-120		
1x	MIA-EC-120 plastic endcap	432078

Application description	Application	Product lines	Base material
MI System - Bracket (Cantilever Arm) On Concrete		MI System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Bracket (Cantilever Arm) On Concrete - Options

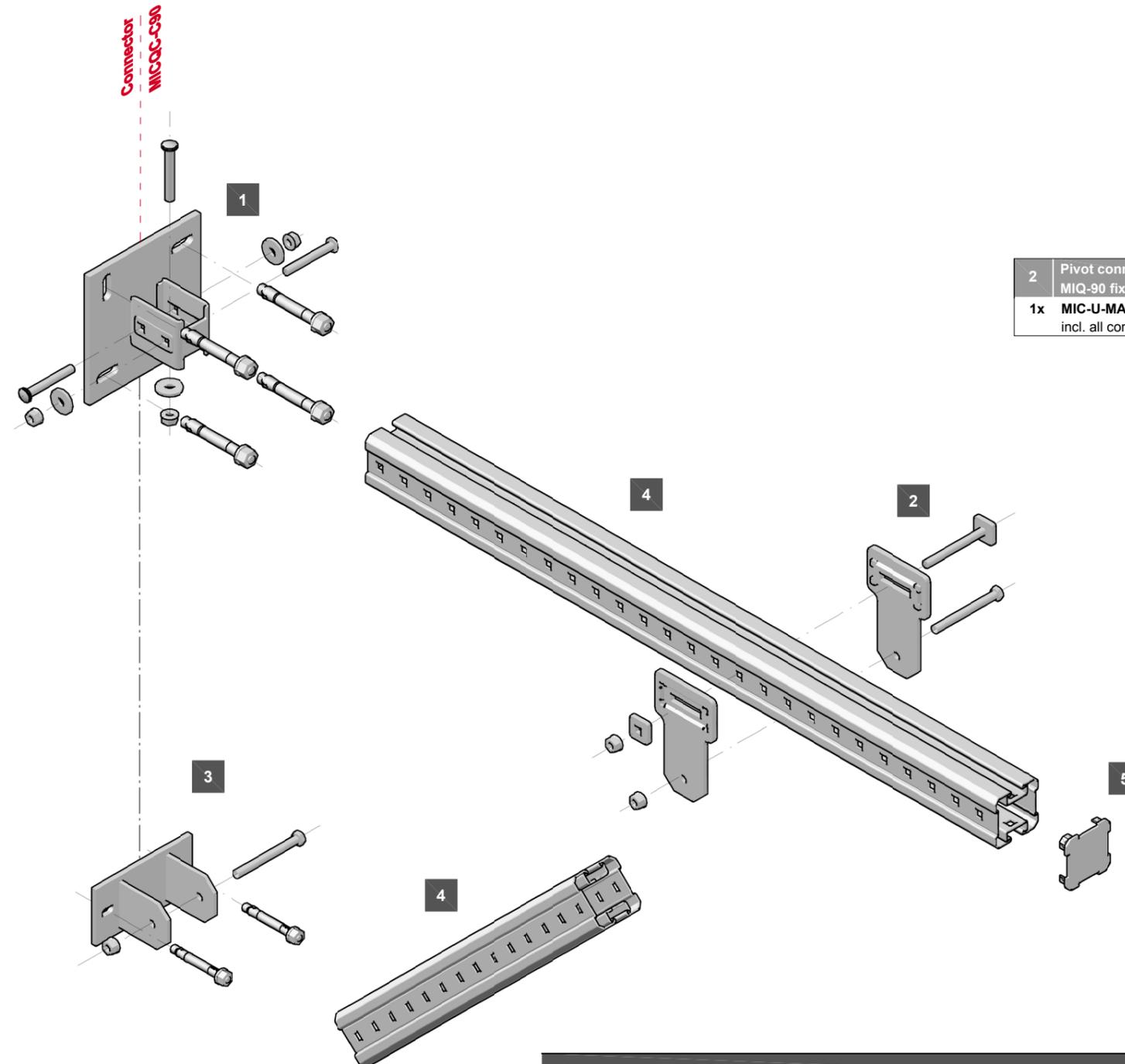
1	Connector MIQC-C90 Concrete connector for MIQ-90	
1x	MIQC-C90 connector	2120144
	Contains connector and all through bolts	
	Anchors	
4x	HST3-R M16x135 35/15	2105876

3	Base material pivot connector MIC-CU-MA	
1x	MIC-CU-MA	304828
	incl. all connectivity material	
	Anchors	
2x	HST3-R M12x105 30/10	2105869

2	Pivot connector MIC-U-MA MIQ-90 fixed on MIQ-90	
1x	MIC-U-MA	304806
	incl. all connectivity material	

5	Girders MI-90	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

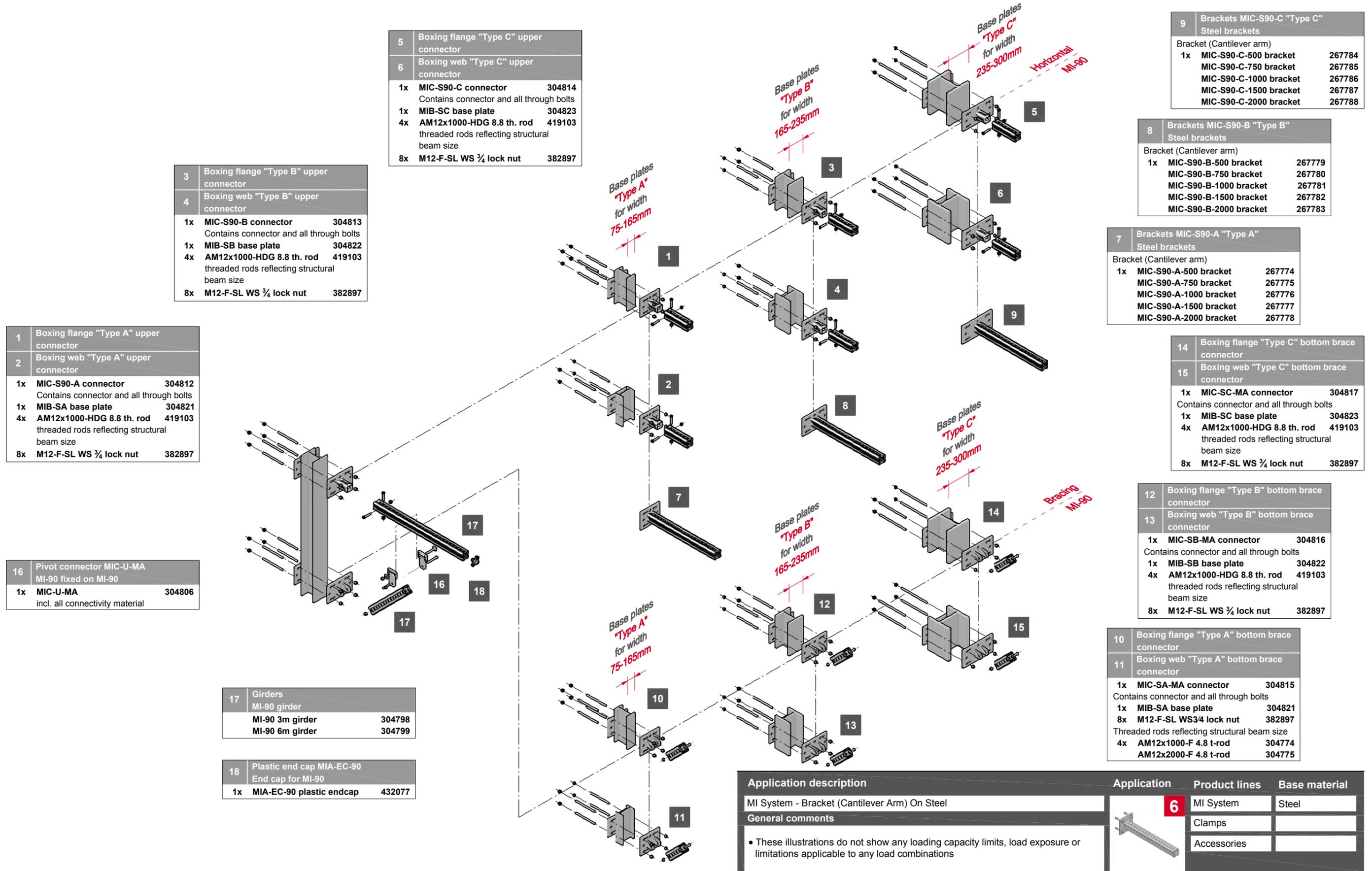
6	Plastic end cap MIA-EC-90 End cap for MIQ-90	
1x	MIA-EC-90 plastic endcap	432077



Application description	Application	Product lines	Base material
MIQ System - Bracket (Cantilever Arm) On Concrete		MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Bracket (Cantilever Arm) On Steel - Boxed Beam Options - Horizontal upper MI-90



5	Boxing flange "Type C" upper connector	
6	Boxing web "Type C" upper connector	
1x	MIC-S90-C connector	304814
	Contains connector and all through bolts	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS 3/4 lock nut	382897

3	Boxing flange "Type B" upper connector	
4	Boxing web "Type B" upper connector	
1x	MIC-S90-B connector	304813
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS 3/4 lock nut	382897

1	Boxing flange "Type A" upper connector	
2	Boxing web "Type A" upper connector	
1x	MIC-S90-A connector	304812
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS 3/4 lock nut	382897

16	Pivot connector MIC-U-MA MI-90 fixed on MI-90	
1x	MIC-U-MA	304806
	incl. all connectivity material	

17	Girders MI-90 girder	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

18	Plastic end cap MIA-EC-90 End cap for MI-90	
1x	MIA-EC-90 plastic endcap	432077

9	Brackets MIC-S90-C "Type C" Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S90-C-500 bracket	267784
	MIC-S90-C-750 bracket	267785
	MIC-S90-C-1000 bracket	267786
	MIC-S90-C-1500 bracket	267787
	MIC-S90-C-2000 bracket	267788

8	Brackets MIC-S90-B "Type B" Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S90-B-500 bracket	267779
	MIC-S90-B-750 bracket	267780
	MIC-S90-B-1000 bracket	267781
	MIC-S90-B-1500 bracket	267782
	MIC-S90-B-2000 bracket	267783

7	Brackets MIC-S90-A "Type A" Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S90-A-500 bracket	267774
	MIC-S90-A-750 bracket	267775
	MIC-S90-A-1000 bracket	267776
	MIC-S90-A-1500 bracket	267777
	MIC-S90-A-2000 bracket	267778

14	Boxing flange "Type C" bottom brace connector	
15	Boxing web "Type C" bottom brace connector	
1x	MIC-SC-MA connector	304817
	Contains connector and all through bolts	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS 3/4 lock nut	382897

12	Boxing flange "Type B" bottom brace connector	
13	Boxing web "Type B" bottom brace connector	
1x	MIC-SB-MA connector	304816
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS 3/4 lock nut	382897

10	Boxing flange "Type A" bottom brace connector	
11	Boxing web "Type A" bottom brace connector	
1x	MIC-SA-MA connector	304815
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
8x	M12-F-SL WS3/4 lock nut	382897
	Threaded rods reflecting structural beam size	
4x	AM12x1000-F 4.8 t-rod	304774
	AM12x2000-F 4.8 t-rod	304775

Application description	Application	Product lines	Base material
MI System - Bracket (Cantilever Arm) On Steel	6	MI System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Bracket (Cantilever Arm) On Steel - Boxed Beam Options - Horizontal upper MI-120

1	Boxing flange "Type A" upper connector	
2	Boxing web "Type A" upper connector	
1x	MIC-S120-A connector	304818
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

3	Boxing flange "Type B" upper connector	
4	Boxing web "Type B" upper connector	
1x	MIC-S120-B connector	304819
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

5	Boxing flange "Type C" upper connector	
6	Boxing web "Type C" upper connector	
1x	MIC-S120-C connector	304820
	Contains connector and all through bolts	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

14	Boxing flange "Type C" upper brace connector	
15	Boxing web "Type C" upper brace connector	
1x	MIC-SC-MA connector	304817
	Contains connector and all through bolts	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

12	Boxing flange "Type B" upper brace connector	
13	Boxing web "Type B" upper brace connector	
1x	MIC-SB-MA connector	304816
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

10	Boxing flange "Type A" upper brace connector	
11	Boxing web "Type A" upper brace connector	
1x	MIC-SA-MA connector	304815
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

17	Girders	
	MI-120 girder	
	MI-120 3m girder	304800
	MI-120 6m girder	304801

18	Girders	
	MI-90 girder	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

19	Plastic end cap MIA-EC-120	
	End cap for MI-120	
1x	MIA-EC-120 plastic endcap	432078

5	Boxing flange "Type C" upper connector	
6	Boxing web "Type C" upper connector	
1x	MIC-S120-C connector	304820
	Contains connector and all through bolts	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

3	Boxing flange "Type B" upper connector	
4	Boxing web "Type B" upper connector	
1x	MIC-S120-B connector	304819
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

1	Boxing flange "Type A" upper connector	
2	Boxing web "Type A" upper connector	
1x	MIC-S120-A connector	304818
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

14	Boxing flange "Type C" upper brace connector	
15	Boxing web "Type C" upper brace connector	
1x	MIC-SC-MA connector	304817
	Contains connector and all through bolts	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

12	Boxing flange "Type B" upper brace connector	
13	Boxing web "Type B" upper brace connector	
1x	MIC-SB-MA connector	304816
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

10	Boxing flange "Type A" upper brace connector	
11	Boxing web "Type A" upper brace connector	
1x	MIC-SA-MA connector	304815
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

17	Girders	
	MI-120 girder	
	MI-120 3m girder	304800
	MI-120 6m girder	304801

18	Girders	
	MI-90 girder	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

19	Plastic end cap MIA-EC-120	
	End cap for MI-120	
1x	MIA-EC-120 plastic endcap	432078

5	Boxing flange "Type C" upper connector	
6	Boxing web "Type C" upper connector	
1x	MIC-S120-C connector	304820
	Contains connector and all through bolts	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

3	Boxing flange "Type B" upper connector	
4	Boxing web "Type B" upper connector	
1x	MIC-S120-B connector	304819
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

1	Boxing flange "Type A" upper connector	
2	Boxing web "Type A" upper connector	
1x	MIC-S120-A connector	304818
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

14	Boxing flange "Type C" upper brace connector	
15	Boxing web "Type C" upper brace connector	
1x	MIC-SC-MA connector	304817
	Contains connector and all through bolts	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

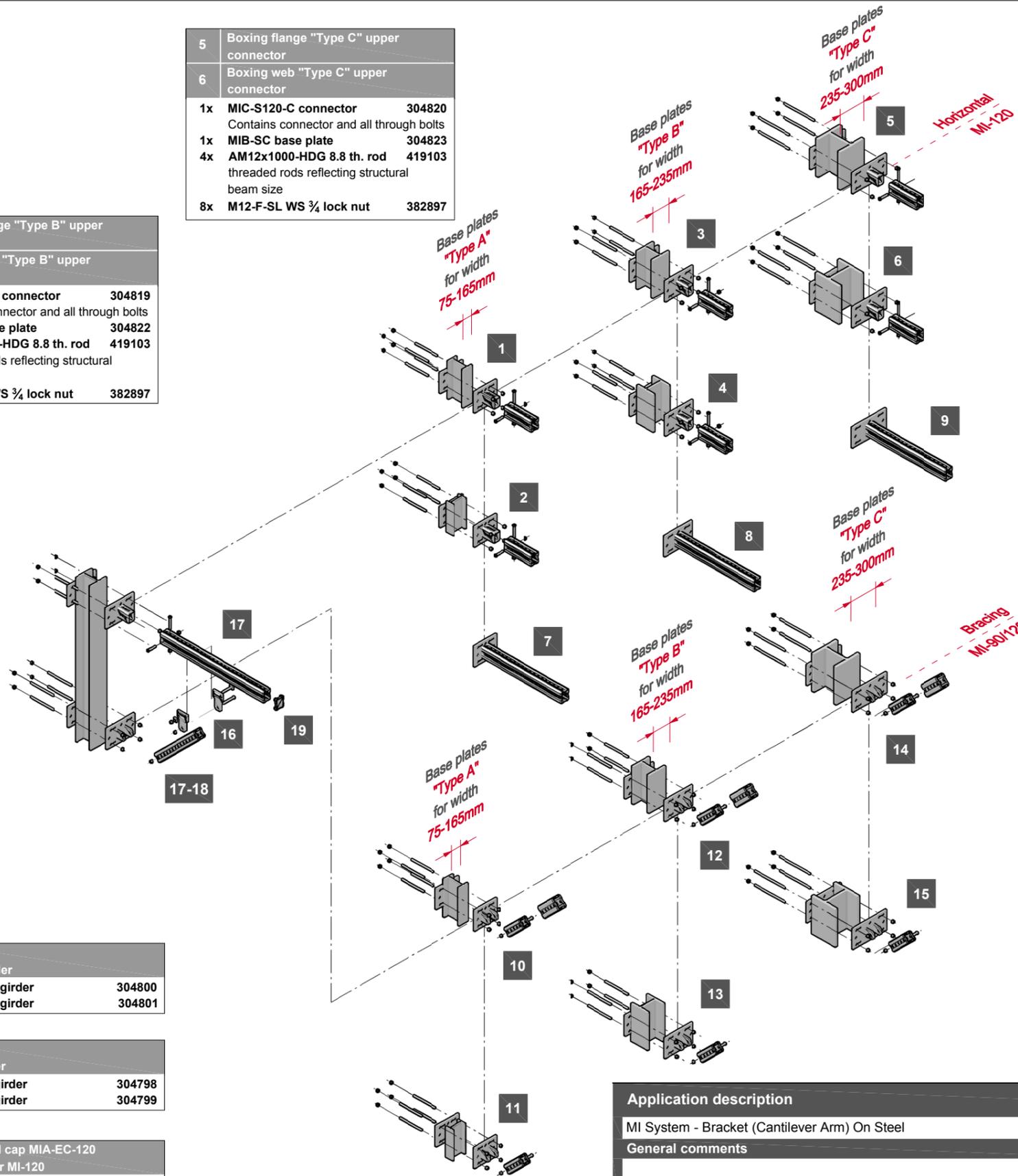
12	Boxing flange "Type B" upper brace connector	
13	Boxing web "Type B" upper brace connector	
1x	MIC-SB-MA connector	304816
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

10	Boxing flange "Type A" upper brace connector	
11	Boxing web "Type A" upper brace connector	
1x	MIC-SA-MA connector	304815
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

17	Girders	
	MI-120 girder	
	MI-120 3m girder	304800
	MI-120 6m girder	304801

18	Girders	
	MI-90 girder	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

19	Plastic end cap MIA-EC-120	
	End cap for MI-120	
1x	MIA-EC-120 plastic endcap	432078



6	Brackets MIC-S90-C "Type C" Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S120-C-500 bracket	270463
	MIC-S120-C-750 bracket	270464
	MIC-S120-C-1000 bracket	270465
	MIC-S120-C-1500 bracket	270466
	MIC-S120-C-2000 bracket	270467

5	Brackets MIC-S120-B "Type B" Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S120-B-500 bracket	267799
	MIC-S120-B-750 bracket	270459
	MIC-S120-B-1000 bracket	270460
	MIC-S120-B-1500 bracket	270461
	MIC-S120-B-2000 bracket	270462

4	Brackets MIC-S120-A "Type A" Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S120-A-500 bracket	267794
	MIC-S120-A-750 bracket	267795
	MIC-S120-A-1000 bracket	267796
	MIC-S120-A-1500 bracket	267797
	MIC-S120-A-2000 bracket	267798

14	Boxing flange "Type C" upper brace connector	
15	Boxing web "Type C" upper brace connector	
1x	MIC-SC-MA connector	304817
	Contains connector and all through bolts	
1x	MIB-SC base plate	304823
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

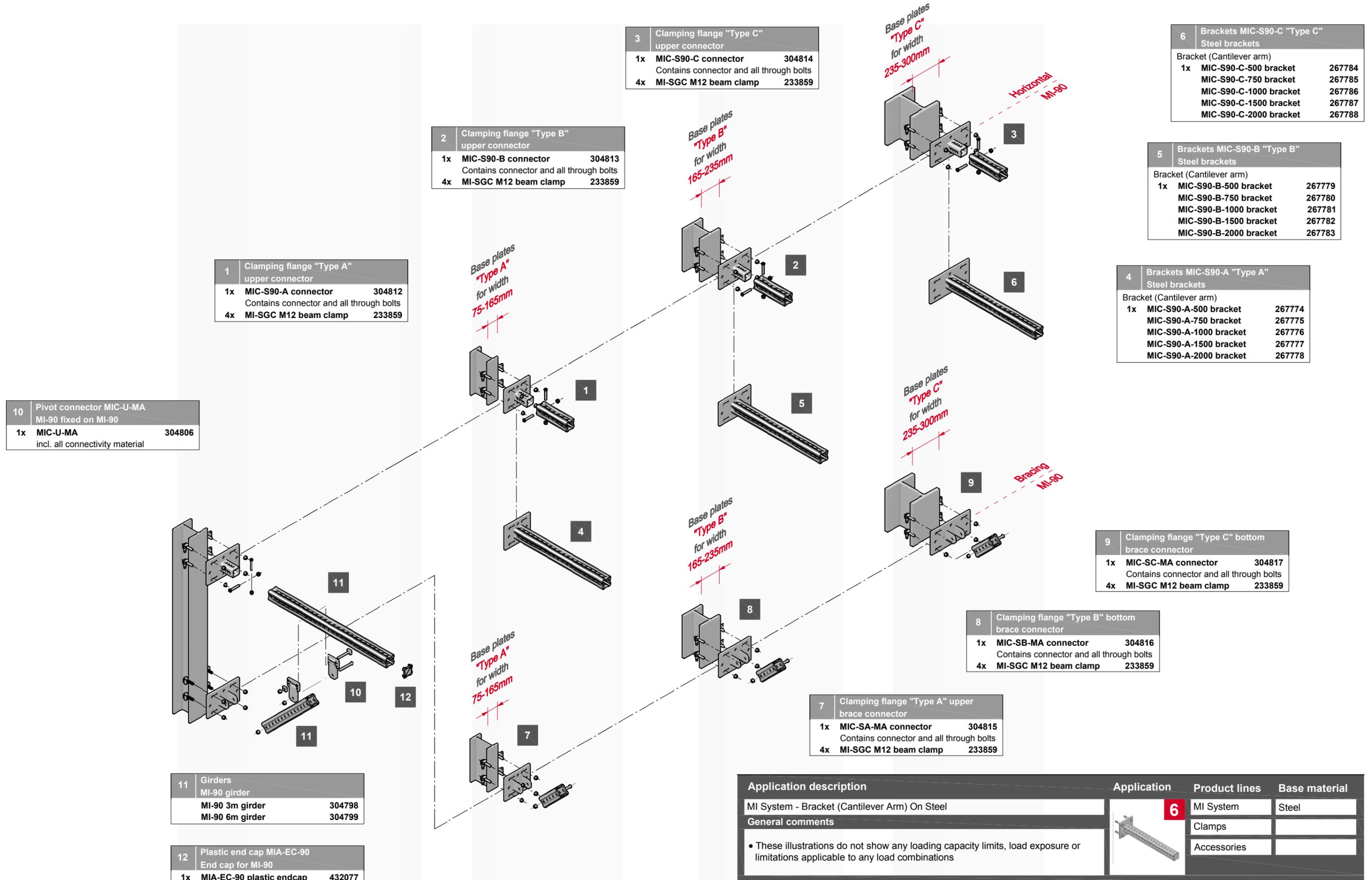
12	Boxing flange "Type B" upper brace connector	
13	Boxing web "Type B" upper brace connector	
1x	MIC-SB-MA connector	304816
	Contains connector and all through bolts	
1x	MIB-SB base plate	304822
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

10	Boxing flange "Type A" upper brace connector	
11	Boxing web "Type A" upper brace connector	
1x	MIC-SA-MA connector	304815
	Contains connector and all through bolts	
1x	MIB-SA base plate	304821
4x	AM12x1000-HDG 8.8 th. rod	419103
	threaded rods reflecting structural beam size	
8x	M12-F-SL WS ¾ lock nut	382897

Application description	Application	Product lines	Base material
MI System - Bracket (Cantilever Arm) On Steel	6	MI System	Steel
General comments		Clamps	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Bracket (Cantilever Arm) On Steel - Clamped Beam Options - Horizontal upper MI-90



1	Clamping flange "Type A" upper connector
1x	MIC-S90-A connector 304812 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

2	Clamping flange "Type B" upper connector
1x	MIC-S90-B connector 304813 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

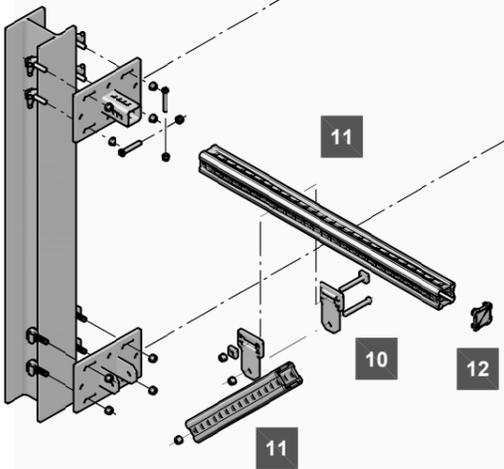
3	Clamping flange "Type C" upper connector
1x	MIC-S90-C connector 304814 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

6	Brackets MIC-S90-C "Type C" Steel brackets
Bracket (Cantilever arm)	
1x	MIC-S90-C-500 bracket 267784
	MIC-S90-C-750 bracket 267785
	MIC-S90-C-1000 bracket 267786
	MIC-S90-C-1500 bracket 267787
	MIC-S90-C-2000 bracket 267788

5	Brackets MIC-S90-B "Type B" Steel brackets
Bracket (Cantilever arm)	
1x	MIC-S90-B-500 bracket 267779
	MIC-S90-B-750 bracket 267780
	MIC-S90-B-1000 bracket 267781
	MIC-S90-B-1500 bracket 267782
	MIC-S90-B-2000 bracket 267783

4	Brackets MIC-S90-A "Type A" Steel brackets
Bracket (Cantilever arm)	
1x	MIC-S90-A-500 bracket 267774
	MIC-S90-A-750 bracket 267775
	MIC-S90-A-1000 bracket 267776
	MIC-S90-A-1500 bracket 267777
	MIC-S90-A-2000 bracket 267778

10	Pivot connector MIC-U-MA MI-90 fixed on MI-90
1x	MIC-U-MA 304806 incl. all connectivity material



11	Girders MI-90 girder
	MI-90 3m girder 304798
	MI-90 6m girder 304799

12	Plastic end cap MIA-EC-90 End cap for MI-90
1x	MIA-EC-90 plastic endcap 432077

7	Clamping flange "Type A" upper brace connector
1x	MIC-SA-MA connector 304815 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

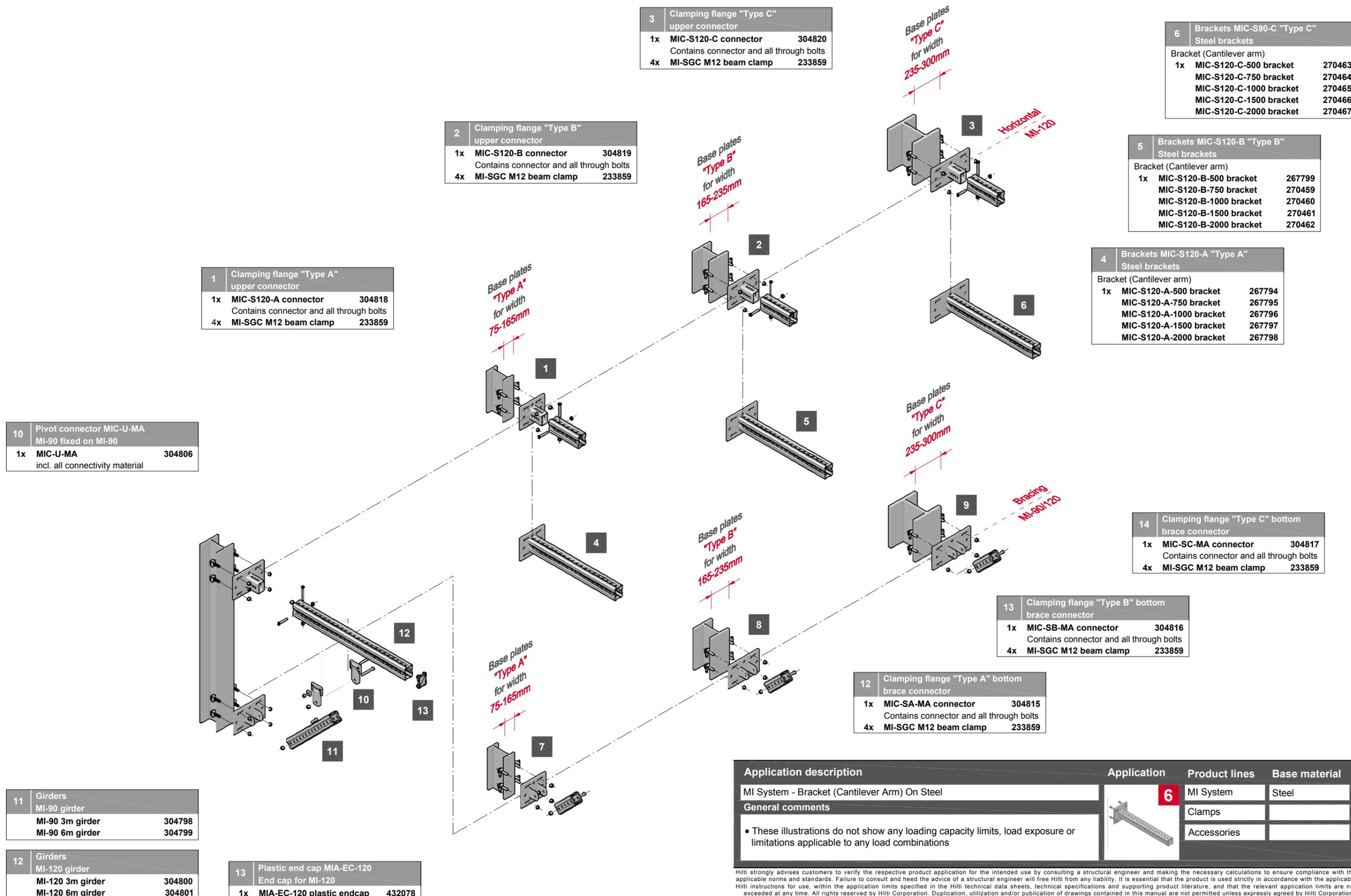
8	Clamping flange "Type B" bottom brace connector
1x	MIC-SB-MA connector 304816 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

9	Clamping flange "Type C" bottom brace connector
1x	MIC-SC-MA connector 304817 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

Application description	Application	Product lines	Base material
MI System - Bracket (Cantilever Arm) On Steel	 6	MI System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Bracket (Cantilever Arm) On Steel - Clamped Beam Options - Horizontal upper MI-120



3	Clamping flange "Type C" upper connector	
1x	MIC-S120-C connector	304820
	Contains connector and all through bolts	
4x	MI-SGC M12 beam clamp	233859

2	Clamping flange "Type B" upper connector	
1x	MIC-S120-B connector	304819
	Contains connector and all through bolts	
4x	MI-SGC M12 beam clamp	233859

1	Clamping flange "Type A" upper connector	
1x	MIC-S120-A connector	304818
	Contains connector and all through bolts	
4x	MI-SGC M12 beam clamp	233859

6	Brackets MIC-S90-C "Type C" Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S120-C-500 bracket	270463
	MIC-S120-C-750 bracket	270464
	MIC-S120-C-1000 bracket	270465
	MIC-S120-C-1500 bracket	270466
	MIC-S120-C-2000 bracket	270467

5	Brackets MIC-S120-B "Type B" Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S120-B-500 bracket	267799
	MIC-S120-B-750 bracket	270459
	MIC-S120-B-1000 bracket	270460
	MIC-S120-B-1500 bracket	270461
	MIC-S120-B-2000 bracket	270462

4	Brackets MIC-S120-A "Type A" Steel brackets	
	Bracket (Cantilever arm)	
1x	MIC-S120-A-500 bracket	267794
	MIC-S120-A-750 bracket	267795
	MIC-S120-A-1000 bracket	267796
	MIC-S120-A-1500 bracket	267797
	MIC-S120-A-2000 bracket	267798

10	Pivot connector MIC-U-MA MI-90 fixed on MI-90	
1x	MIC-U-MA	304806
	incl. all connectivity material	

14	Clamping flange "Type C" bottom brace connector	
1x	MIC-SC-MA connector	304817
	Contains connector and all through bolts	
4x	MI-SGC M12 beam clamp	233859

13	Clamping flange "Type B" bottom brace connector	
1x	MIC-SB-MA connector	304816
	Contains connector and all through bolts	
4x	MI-SGC M12 beam clamp	233859

12	Clamping flange "Type A" bottom brace connector	
1x	MIC-SA-MA connector	304815
	Contains connector and all through bolts	
4x	MI-SGC M12 beam clamp	233859

11	Girders MI-90 girder	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

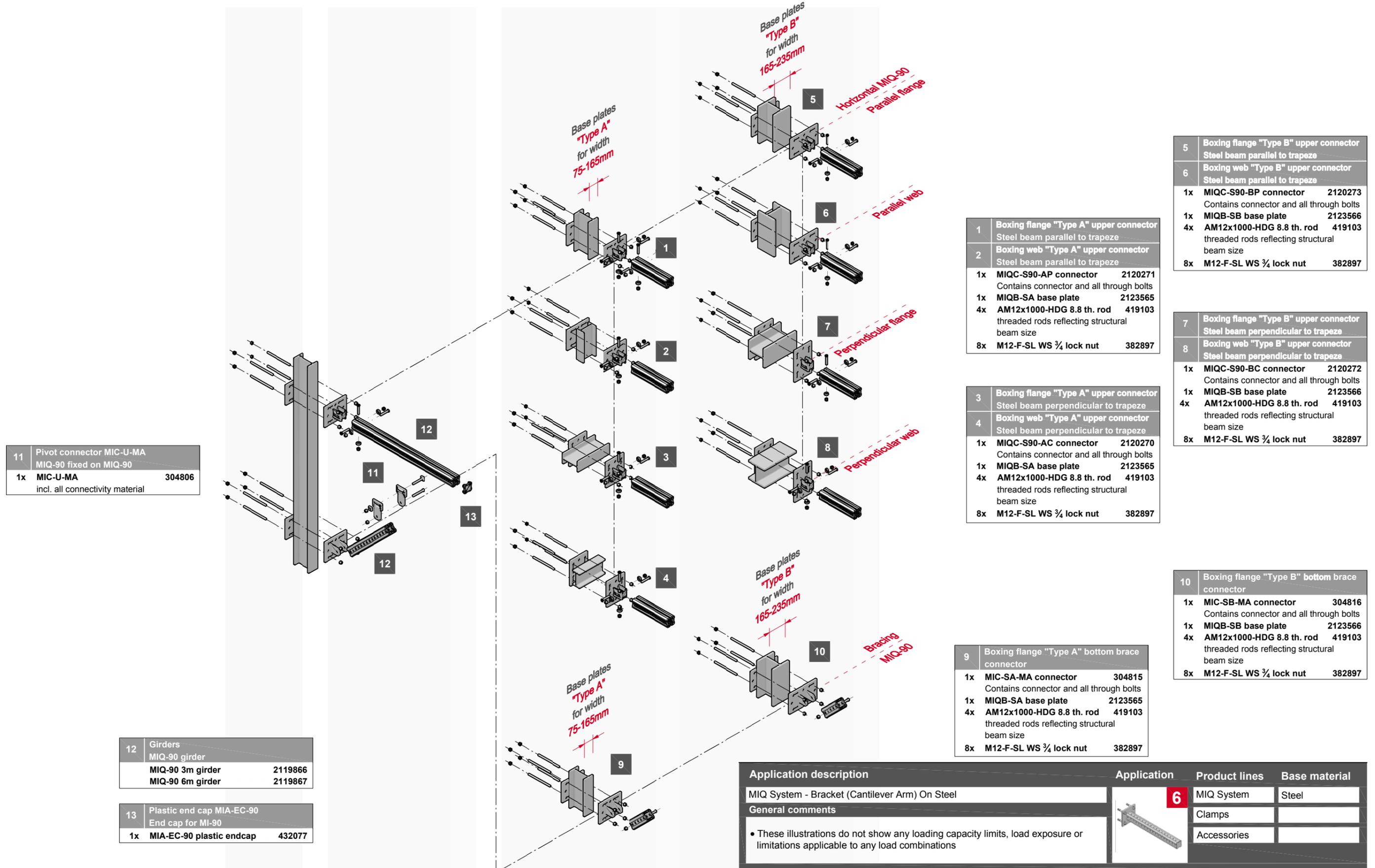
12	Girders MI-120 girder	
	MI-120 3m girder	304800
	MI-120 6m girder	304801

13	Plastic end cap MIA-EC-120 End cap for MI-120	
1x	MIA-EC-120 plastic endcap	432078

Application description	Application	Product lines	Base material
MI System - Bracket (Cantilever Arm) On Steel	 6	MI System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Bracket (Cantilever Arm) On Steel - Boxed Beam Options - Horizontal upper MIQ-90



11	Pivot connector MIC-U-MA MIQ-90 fixed on MIQ-90	
1x	MIC-U-MA	304806
incl. all connectivity material		

12	Girders MIQ-90 girder	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

13	Plastic end cap MIA-EC-90 End cap for MI-90	
1x	MIA-EC-90 plastic endcap	432077

1	Boxing flange "Type A" upper connector Steel beam parallel to trapeze	
2	Boxing web "Type A" upper connector Steel beam parallel to trapeze	
1x	MIQC-S90-AP connector	2120271
Contains connector and all through bolts		
1x	MIQB-SA base plate	2123565
4x	AM12x1000-HDG 8.8 th. rod	419103
threaded rods reflecting structural beam size		
8x	M12-F-SL WS 3/4 lock nut	382897

3	Boxing flange "Type A" upper connector Steel beam perpendicular to trapeze	
4	Boxing web "Type A" upper connector Steel beam perpendicular to trapeze	
1x	MIQC-S90-AC connector	2120270
Contains connector and all through bolts		
1x	MIQB-SA base plate	2123565
4x	AM12x1000-HDG 8.8 th. rod	419103
threaded rods reflecting structural beam size		
8x	M12-F-SL WS 3/4 lock nut	382897

9	Boxing flange "Type A" bottom brace connector	
1x	MIC-SA-MA connector	304815
Contains connector and all through bolts		
1x	MIQB-SA base plate	2123565
4x	AM12x1000-HDG 8.8 th. rod	419103
threaded rods reflecting structural beam size		
8x	M12-F-SL WS 3/4 lock nut	382897

5	Boxing flange "Type B" upper connector Steel beam parallel to trapeze	
6	Boxing web "Type B" upper connector Steel beam parallel to trapeze	
1x	MIQC-S90-BP connector	2120273
Contains connector and all through bolts		
1x	MIQB-SB base plate	2123566
4x	AM12x1000-HDG 8.8 th. rod	419103
threaded rods reflecting structural beam size		
8x	M12-F-SL WS 3/4 lock nut	382897

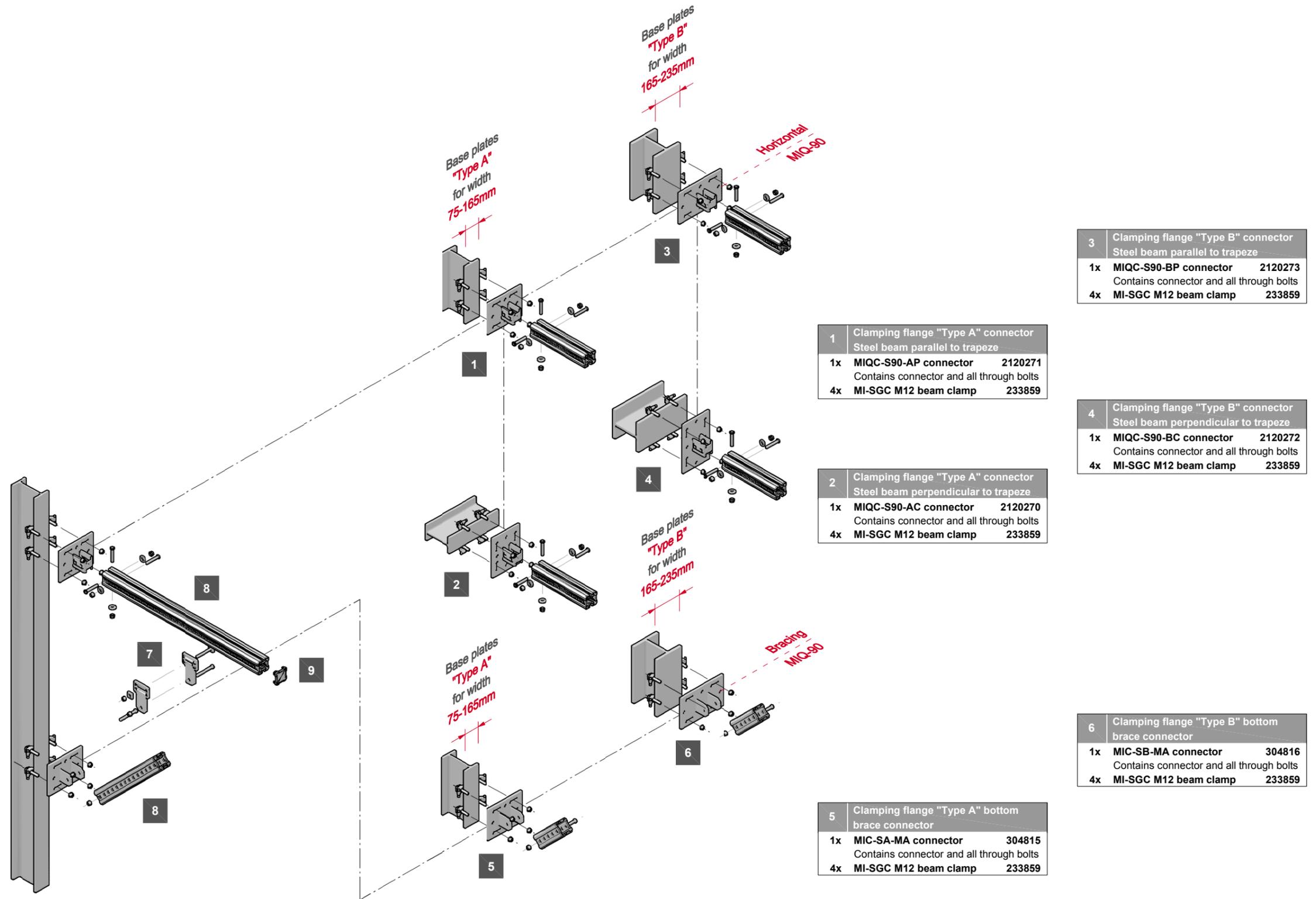
7	Boxing flange "Type B" upper connector Steel beam perpendicular to trapeze	
8	Boxing web "Type B" upper connector Steel beam perpendicular to trapeze	
1x	MIQC-S90-BC connector	2120272
Contains connector and all through bolts		
1x	MIQB-SB base plate	2123566
4x	AM12x1000-HDG 8.8 th. rod	419103
threaded rods reflecting structural beam size		
8x	M12-F-SL WS 3/4 lock nut	382897

10	Boxing flange "Type B" bottom brace connector	
1x	MIC-SB-MA connector	304816
Contains connector and all through bolts		
1x	MIQB-SB base plate	2123566
4x	AM12x1000-HDG 8.8 th. rod	419103
threaded rods reflecting structural beam size		
8x	M12-F-SL WS 3/4 lock nut	382897

Application description	Application	Product lines	Base material
MIQ System - Bracket (Cantilever Arm) On Steel		MIQ System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Bracket (Cantilever Arm) On Steel - Clamped Beam Options - Horizontal upper



7	Pivot connector MIC-U-MA MIQ-90 fixed on MIQ-90
1x	MIC-U-MA 304806 incl. all connectivity material

8	Girders MIQ-90 girder
	MIQ-90 3m girder 2119866
	MIQ-90 6m girder 2119867

9	Plastic end cap MIA-EC-90 End cap for MI-90
1x	MIA-EC-90 plastic endcap 432077

1	Clamping flange "Type A" connector Steel beam parallel to trapeze
1x	MIQC-S90-AP connector 2120271 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

2	Clamping flange "Type A" connector Steel beam perpendicular to trapeze
1x	MIQC-S90-AC connector 2120270 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

5	Clamping flange "Type A" bottom brace connector
1x	MIC-SA-MA connector 304815 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

3	Clamping flange "Type B" connector Steel beam parallel to trapeze
1x	MIQC-S90-BP connector 2120273 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

4	Clamping flange "Type B" connector Steel beam perpendicular to trapeze
1x	MIQC-S90-BC connector 2120272 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

6	Clamping flange "Type B" bottom brace connector
1x	MIC-SB-MA connector 304816 Contains connector and all through bolts
4x	MI-SGC M12 beam clamp 233859

Application description	Application	Product lines	Base material
MIQ System - Bracket (Cantilever Arm) On Steel		MIQ System	Steel
General comments		Clamps	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Goal Post On Concrete - Options

13	Connector MIC-90-LH MI-90 fixed on MI-90
14	Connector MIC-90-LH MI-90 fixed on MI-120
15	Connector MIC-90-LH MI-120 fixed on MI-90
16	Connector MIC-90-LH MI-120 fixed on MI-120
Angle does not include all connectivity material	
1x	MIC-90-LH 2048107
Connectivity material ordered separately	
4x	MIA-EH90 easy hand screw 304887
4x	MIA-TP serrated plate 305707
4x	M12-F-SL-WS 3/4" lock nut 382897

9	Connector MIC-T MI-90 fixed on MI-90
10	Connector MIC-T MI-90 fixed on MI-120
11	Connector MIC-T MI-120 fixed on MI-90
12	Connector MIC-T MI-120 fixed on MI-120
1x	MIC-T 304807
Incl. all connectivity material	

6	Connector MIC-L MI-90 fixed on MI-90
1x	MIC-90-L 304805
incl. all connectivity material	
7	Connector MIC-L MI-90 fixed on MI-120
1x	MIC-90-L 304805
incl. all connectivity material	
2x	MIA-EH120 easy screw 304888
the original MIA-EH 90 from the package will remain unused	

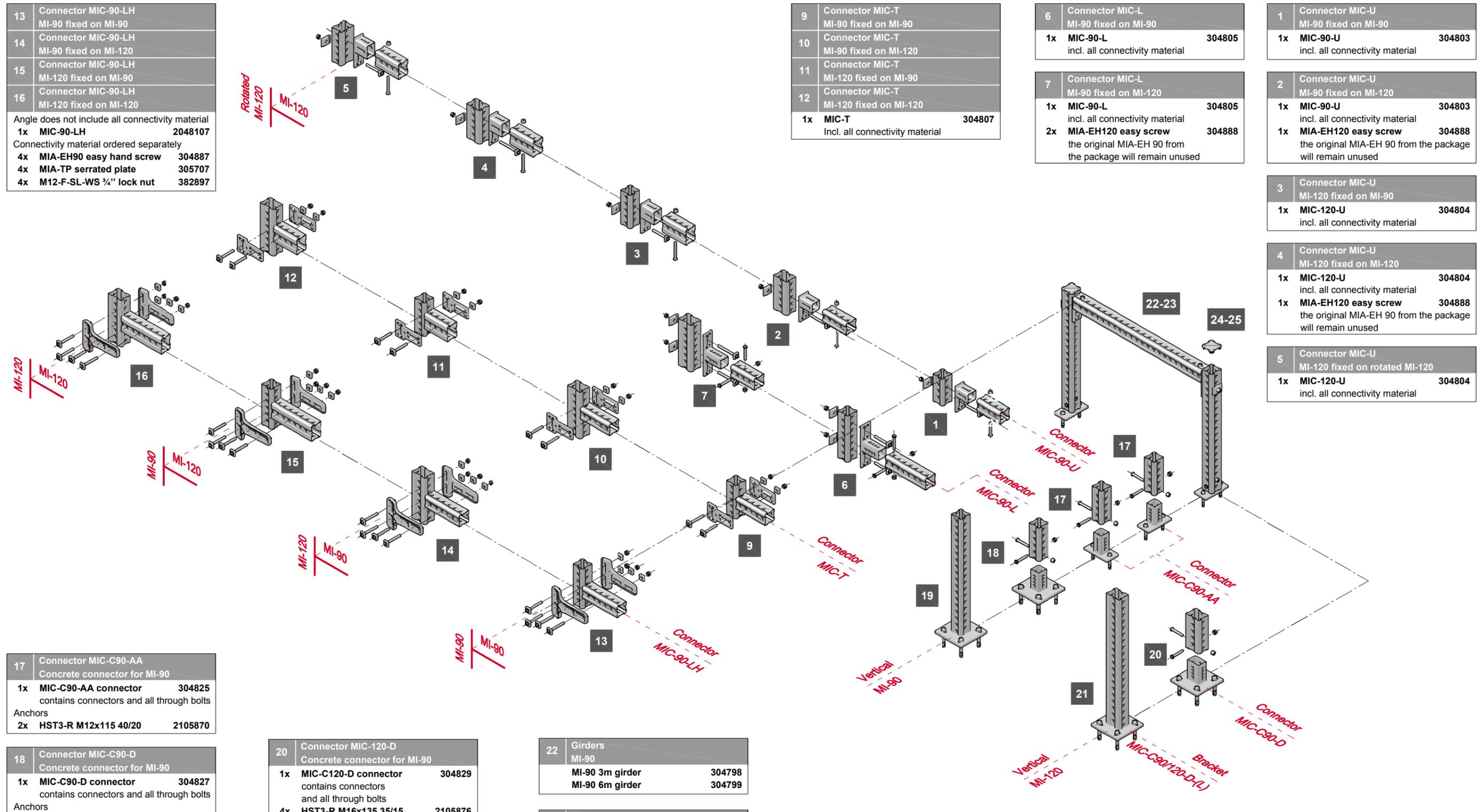
1	Connector MIC-U MI-90 fixed on MI-90
1x	MIC-90-U 304803
incl. all connectivity material	

2	Connector MIC-U MI-90 fixed on MI-120
1x	MIC-90-U 304803
incl. all connectivity material	
1x	MIA-EH120 easy screw 304888
the original MIA-EH 90 from the package will remain unused	

3	Connector MIC-U MI-120 fixed on MI-90
1x	MIC-120-U 304804
incl. all connectivity material	

4	Connector MIC-U MI-120 fixed on MI-120
1x	MIC-120-U 304804
incl. all connectivity material	
1x	MIA-EH120 easy screw 304888
the original MIA-EH 90 from the package will remain unused	

5	Connector MIC-U MI-120 fixed on rotated MI-120
1x	MIC-120-U 304804
incl. all connectivity material	



17	Connector MIC-C90-AA Concrete connector for MI-90
1x	MIC-C90-AA connector 304825
contains connectors and all through bolts	
Anchors	
2x	HST3-R M12x115 40/20 2105870

18	Connector MIC-C90-D Concrete connector for MI-90
1x	MIC-C90-D connector 304827
contains connectors and all through bolts	
Anchors	
4x	HST3-R M16x135 35/15 2105876

19	Brackets MIC-C120-D for concrete
Bracket (Cantilever arm)	
1x	MIC-C90-D-500 267789
	MIC-C90-D-750 267790
	MIC-C90-D-1000 267791
	MIC-C90-D-1500 267792
	MIC-C90-D-2000 267793
Anchors	
4x	HST3-R M16x135 35/15 2105876

20	Connector MIC-120-D Concrete connector for MI-90
1x	MIC-C120-D connector 304829
contains connectors and all through bolts	
Anchors	
4x	HST3-R M16x135 35/15 2105876
stud anchor	

21	Brackets MIC-C120-D for concrete
Bracket (Cantilever arm)	
1x	MIC-C120-D-500 270468
	MIC-C120-D-750 270469
	MIC-C120-D-1000 270470
	MIC-C120-D-1500 270471
	MIC-C120-D-2000 270472
Anchors	
4x	HST3-R M16x135 35/15 2105876

22	Girders MI-90
	MI-90 3m girder 304798
	MI-90 6m girder 304799

23	Girders MI-120
	MI-120 3m girder 304800
	MI-120 6m girder 304801

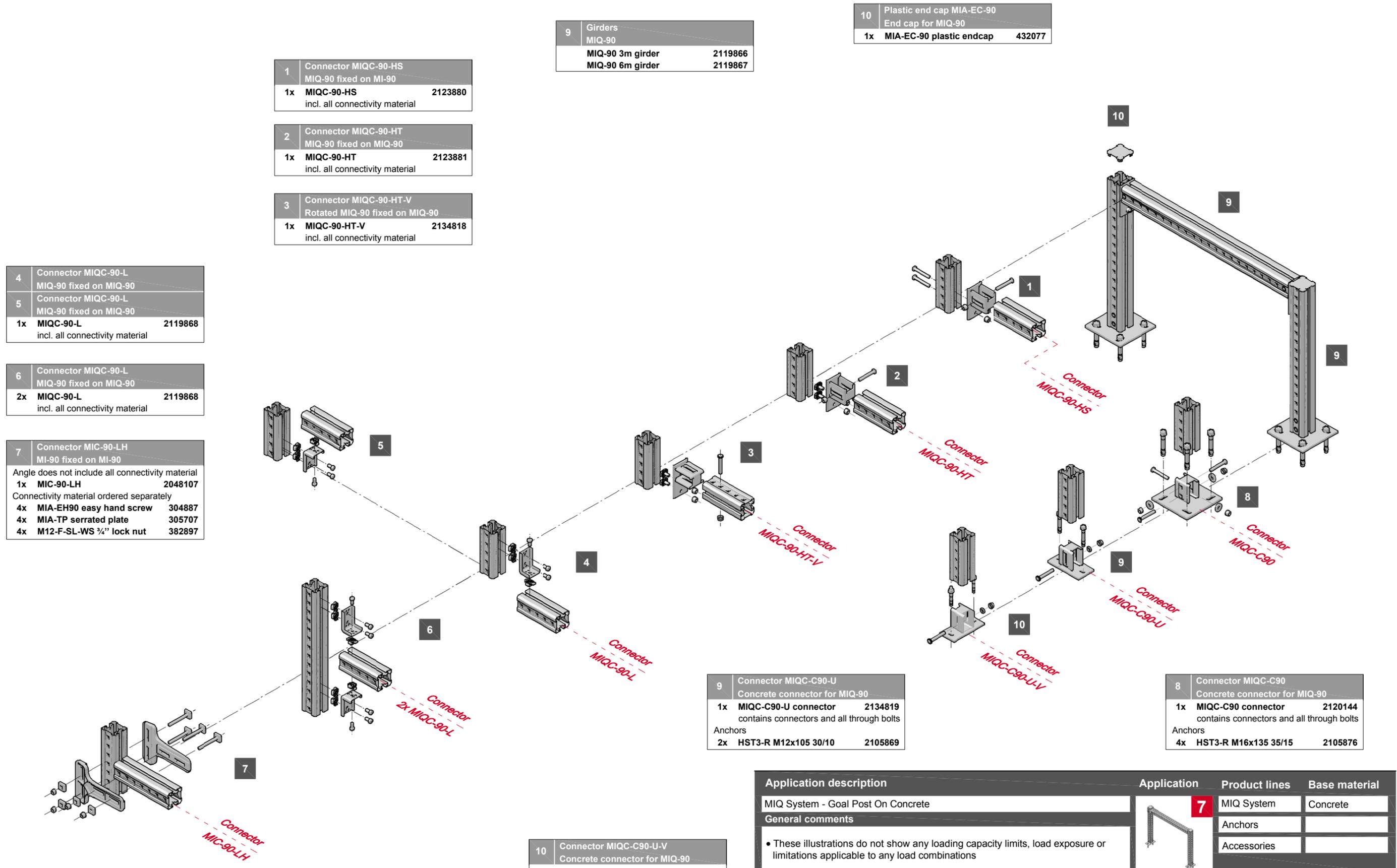
24	Plastic end cap MIA-EC-120 End cap for MI-120
1x	MIA-EC-120 plastic endcap 432078

25	Plastic end cap MIA-EC-90 End cap for MI-90
1x	MIA-EC-90 plastic endcap 432077

Application description	Application	Product lines	Base material
MI System - Goal Post On Concrete	7	MI System	Concrete
General comments		Anchors	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Goal Post On Concrete - Options



1	Connector MIQC-90-HS MIQ-90 fixed on MI-90
1x	MIQC-90-HS 2123880 incl. all connectivity material

2	Connector MIQC-90-HT MIQ-90 fixed on MIQ-90
1x	MIQC-90-HT 2123881 incl. all connectivity material

3	Connector MIQC-90-HT-V Rotated MIQ-90 fixed on MIQ-90
1x	MIQC-90-HT-V 2134818 incl. all connectivity material

9	Girders MIQ-90
	MIQ-90 3m girder 2119866
	MIQ-90 6m girder 2119867

10	Plastic end cap MIA-EC-90 End cap for MIQ-90
1x	MIA-EC-90 plastic endcap 432077

4	Connector MIQC-90-L MIQ-90 fixed on MIQ-90
5	Connector MIQC-90-L MIQ-90 fixed on MIQ-90
1x	MIQC-90-L 2119868 incl. all connectivity material

6	Connector MIQC-90-L MIQ-90 fixed on MIQ-90
2x	MIQC-90-L 2119868 incl. all connectivity material

7	Connector MIC-90-LH MI-90 fixed on MI-90
Angle does not include all connectivity material	
1x	MIC-90-LH 2048107
Connectivity material ordered separately	
4x	MIA-EH90 easy hand screw 304887
4x	MIA-TP serrated plate 305707
4x	M12-F-SL-WS 3/4" lock nut 382897

9	Connector MIQC-C90-U Concrete connector for MIQ-90
1x	MIQC-C90-U connector 2134819 contains connectors and all through bolts
Anchors	
2x	HST3-R M12x105 30/10 2105869

8	Connector MIQC-C90 Concrete connector for MIQ-90
1x	MIQC-C90 connector 2120144 contains connectors and all through bolts
Anchors	
4x	HST3-R M16x135 35/15 2105876

10	Connector MIQC-C90-U-V Concrete connector for MIQ-90
1x	MIQC-C90-U-V connector 2161806 contains connectors and all through bolts
Anchors	
2x	HST3-R M12x105 30/10 2105869

Application description	Application	Product lines	Base material
MIQ System - Goal Post On Concrete		MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Goal Post On Concrete - Options

1	Connector MIQC-90-MI MIQ-90 fixed on MI-90
3	Connector MIQC-90-MI MIQ-90 fixed on rotated MI-120
1x	MIQC-90-MI 2140257 incl. all connectivity material

2	Connector MIQC-90-MI MIQ-90 fixed on MI-120
1x	MIQC-90-MI 2140257 incl. all connectivity material
1x	MIA-EH120 easy screw 304888 the original MIA-EH 90 from the package will remain unused

4	Connector MIQC-90-MI-V MIQ-90 fixed on MI-90
6	Connector MIQC-90-MI-V MIQ-90 fixed on rotated MI-120
1x	MIQC-90-MI-V 2140258 incl. all connectivity material

5	Connector MIQC-90-MI-V MIQ-90 fixed on MI-120
1x	MIQC-90-MI-V 2140258 incl. all connectivity material
1x	MIA-EH120 easy screw 304888 the original MIA-EH 90 from the package will remain unused

7	Connector MIC-90-LH MIQ-90 fixed on MI-90
8	Connector MIC-90-LH MIQ-90 fixed on MI-120
Angle does not include all connectivity material	
1x	MIC-90-LH 2048107
Connectivity material ordered separately	
4x	MIA-EH90 easy hand screw 304887
4x	MIA-TP serrated plate 305707
4x	M12-F-SL-WS 3/4" lock nut 382897

17	Plastic end cap MIA-EC-90 End cap for MI-90
1x	MIA-EC-90 plastic endcap 432077

18	Plastic end cap MIA-EC-120 End cap for MI-120
1x	MIA-EC-120 plastic endcap 432078

14	Girders MIQ-90
1x	MIQ-90 3m girder 2119866
1x	MIQ-90 6m girder 2119867

15	Girders MI-90
1x	MI-90 3m girder 304798
1x	MI-90 6m girder 304799

16	Girders MI-120
1x	MI-120 3m girder 304800
1x	MI-120 6m girder 304801

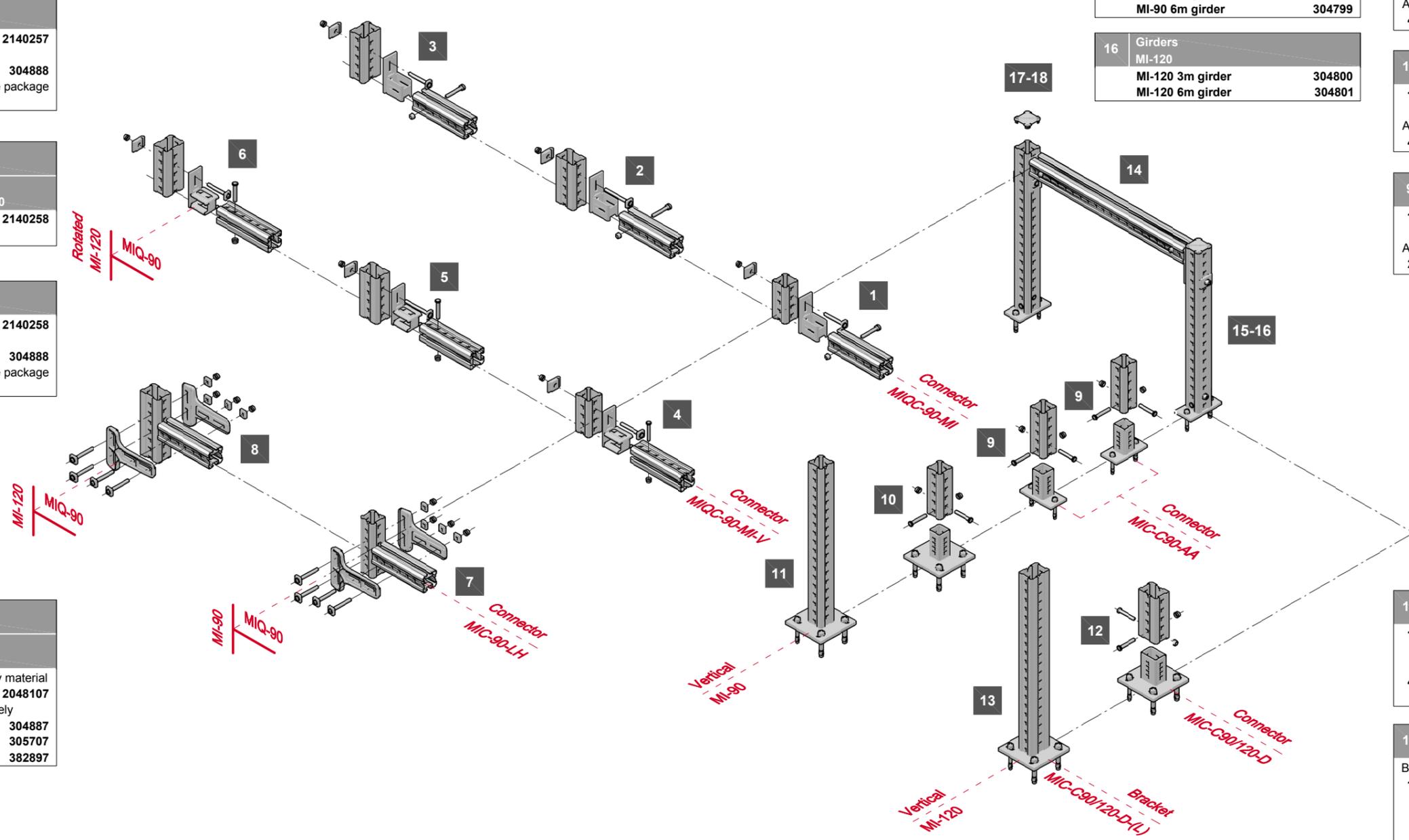
11	Brackets MIC-C120-D for concrete
Bracket (Cantilever arm)	
1x	MIC-C90-D-500 267789
1x	MIC-C90-D-750 267790
1x	MIC-C90-D-1000 267791
1x	MIC-C90-D-1500 267792
1x	MIC-C90-D-2000 267793
Anchors	
4x	HST3-R M16x135 35/15 2105876

10	Connector MIC-C90-D Concrete connector for MI-90
1x	MIC-C90-D connector 304827 contains connectors and all through bolts
Anchors	
4x	HST3-R M16x135 35/15 2105876

9	Connector MIC-C90-AA Concrete connector for MI-90
1x	MIC-C90-AA connector 304825 contains connectors and all through bolts
Anchors	
2x	HST3-R M12x115 40/20 2105870

12	Connector MIC-120-D Concrete connector for MI-90
1x	MIC-C120-D connector 304829 contains connectors and all through bolts
4x	HST3-R M16x135 35/15 2105876 stud anchor

13	Brackets MIC-C120-D for concrete
Bracket (Cantilever arm)	
1x	MIC-C120-D-500 270468
1x	MIC-C120-D-750 270469
1x	MIC-C120-D-1000 270470
1x	MIC-C120-D-1500 270471
1x	MIC-C120-D-2000 270472
Anchors	
4x	HST3-R M16x135 35/15 2105876



Application description	Application	Product lines	Base material
MI/MIQ System - Goal Post On Concrete		MI/MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Floor Tree-T On Concrete - Options

1	Connector MIC-90-LH MI-90 fixed on MI-90	
2	Connector MIC-90-LH MI-90 fixed on MI-120	
3	Connector MIC-90-LH MI-120 fixed on MI-90	
4	Connector MIC-90-LH MI-120 fixed on MI-120	
Angle does not include all connectivity material		
1x	MIC-90-LH	2048107
Connectivity material ordered separately		
4x	MIA-EH90 easy hand screw	304887
4x	MIA-TP serrated plate	305707
4x	M12-F-SL-WS 3/4" lock nut	382897

22	Girders MI-90	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

23	Girders MI-120	
	MI-120 3m girder	304800
	MI-120 6m girder	304801

24	Plastic end cap MIA-EC-120 End cap for MI-120	
1x	MIA-EC-120 plastic endcap	432078

25	Plastic end cap MIA-EC-90 End cap for MI-90	
1x	MIA-EC-90 plastic endcap	432077

14	Brackets MIC-C120-D for concrete	
Bracket (Cantilever arm)		
1x	MIC-C120-D-500	270468
	MIC-C120-D-750	270469
	MIC-C120-D-1000	270470
	MIC-C120-D-1500	270471
	MIC-C120-D-2000	270472
Anchors		
4x	HST3-R M16x135 35/15	2105876

15	Connector MIC-120-D Concrete connector for MI-90	
1x	MIC-C120-D connector contains connectors and all through bolts	304829
4x	HST3-R M16x135 35/15 stud anchor	2105876

10	Connector MIC-L MI-90 fixed on MI-120	
1x	MIC-90-L incl. all connectivity material	304805
2x	MIA-EH120 easy screw the original MIA-EH 90 from the package will remain unused	304888

9	Connector MIC-L MI-90 fixed on MI-90	
1x	MIC-90-L incl. all connectivity material	304805

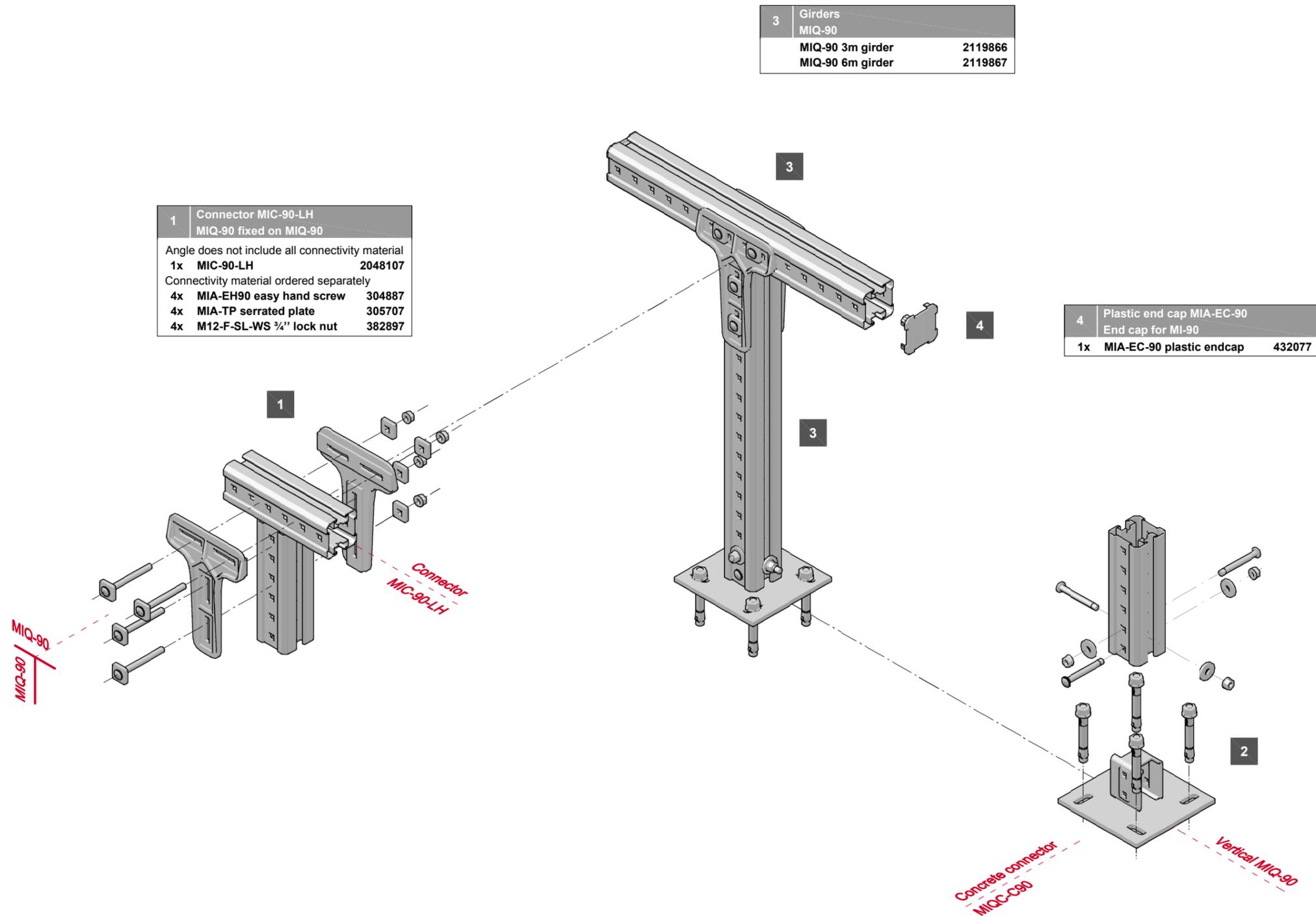
11	Brackets MIC-C90-D for concrete	
Bracket (Cantilever arm)		
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
Anchors		
4x	HST3-R M16x135 35/15	2105876

12	Connector MIC-C90-D Concrete connector for MI-90	
1x	MIC-C90-D connector contains connectors and all through bolts	304827
Anchors		
4x	HST3-R M16x135 35/15	2105876

Application description	Application	Product lines	Base material
MI System - T-tree On Concrete		MI System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Floor Tree-T On Concrete - Options



Application description	Application	Product lines	Base material
MIQ System - T-tree On Concrete	 8	MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Floor Tree-T On Concrete - Options

7	Girders MIQ-90	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

8	Girders MI-90	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

9	Girders MI-120	
	MI-120 3m girder	304800
	MI-120 6m girder	304801

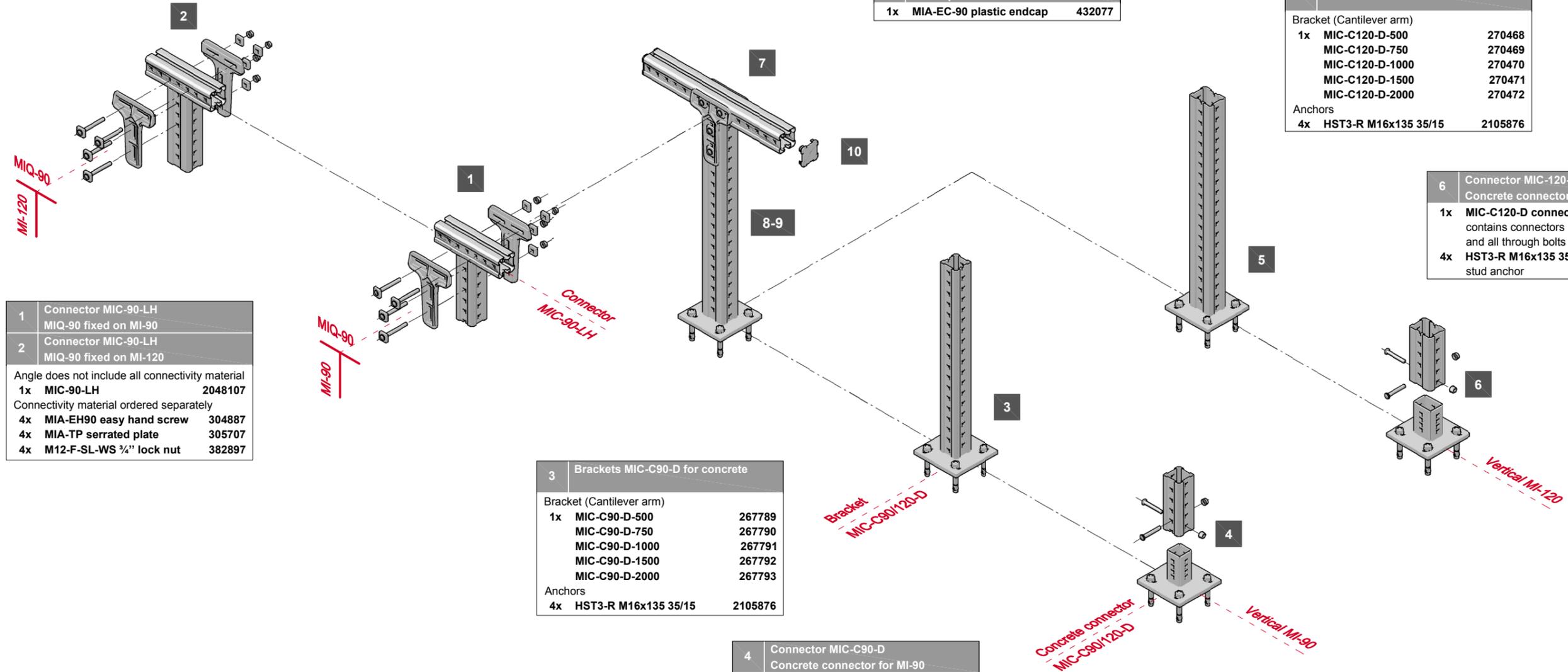
10	Plastic end cap MIA-EC-90 End cap for MI-90	
1x	MIA-EC-90 plastic endcap	432077

5	Brackets MIC-C120-D for concrete	
Bracket (Cantilever arm)		
1x	MIC-C120-D-500	270468
	MIC-C120-D-750	270469
	MIC-C120-D-1000	270470
	MIC-C120-D-1500	270471
	MIC-C120-D-2000	270472
Anchors		
4x	HST3-R M16x135 35/15	2105876

6	Connector MIC-120-D Concrete connector for MI-90	
1x	MIC-C120-D connector contains connectors and all through bolts	304829
4x	HST3-R M16x135 35/15 stud anchor	2105876

3	Brackets MIC-C90-D for concrete	
Bracket (Cantilever arm)		
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
Anchors		
4x	HST3-R M16x135 35/15	2105876

4	Connector MIC-C90-D Concrete connector for MI-90	
1x	MIC-C90-D connector contains connectors and all through bolts	304827
Anchors		
4x	HST3-R M16x135 35/15	2105876



1	Connector MIC-90-LH MIQ-90 fixed on MI-90	
2	Connector MIC-90-LH MIQ-90 fixed on MI-120	
Angle does not include all connectivity material		
1x	MIC-90-LH	2048107
Connectivity material ordered separately		
4x	MIA-EH90 easy hand screw	304887
4x	MIA-TP serrated plate	305707
4x	M12-F-SL-WS 3/4" lock nut	382897

Application description	Application	Product lines	Base material
MI/MIQ System - T-tree On Concrete		8 MI/MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Floor Tree-L On Concrete - Options

1	Connector MIC-90-LH MI-90 fixed on MI-90
2	Connector MIC-90-LH MI-90 fixed on MI-120
3	Connector MIC-90-LH MI-120 fixed on MI-90
4	Connector MIC-90-LH MI-120 fixed on MI-120
Angle does not include all connectivity material	
1x	MIC-90-LH 2048107
Connectivity material ordered separately	
4x	MIA-EH90 easy hand screw 304887
4x	MIA-TP serrated plate 305707
4x	M12-F-SL-WS 3/4" lock nut 382897

14	Girders MI-90
	MI-90 3m girder 304798
	MI-90 6m girder 304799

15	Girders MI-120
	MI-120 3m girder 304800
	MI-120 6m girder 304801

16	Plastic end cap MIA-EC-90 End cap for MI-90
1x	MIA-EC-90 plastic endcap 432077

17	Plastic end cap MIA-EC-120 End cap for MI-120
1x	MIA-EC-120 plastic endcap 432078

11	Brackets for concrete MIC-C120-D
Bracket (Cantilever arm)	
1x	MIC-C120-D-500 270468
	MIC-C120-D-750 270469
	MIC-C120-D-1000 270470
	MIC-C120-D-1500 270471
	MIC-C120-D-2000 270472
Anchors	
4x	HST3-R M16x135 35/15 2105876

12	Bracket MIC-C120-D with MI-90 bracing
Bracket (Cantilever arm)	
1x	MIC-C120-D bracket See point "11"
4x	HST3-R M16x135 35/15 2105876
Bracing include connectors	
1x	MIC-U-MA 304806
incl. all connectivity material	
1x	MI-90 girder See point "14"
1x	MIC-CU-MA 304828
incl. all connectivity material	
2x	HST3-R M12x105 30/10 2105869

13	Girder MI-120 with MI-90 bracing
Vertical girder	
1x	MI-120 girder See point "15"
1x	MIC-C120-D connector 304829
Contains connectors and all through bolts	
4x	HST3-R M16x135 35/15 2105876
Bracing include connectors	
1x	MIC-U-MA 304806
incl. all connectivity material	
1x	MI-90 girder See point "14"
1x	MIC-CU-MA 304828
incl. all connectivity material	
2x	HST3-R M12x105 30/10 2105869

9	Girder MI-90 with MI-90 bracing
Vertical girder	
1x	MI-90 girder See point "14"
1x	MIC-C90-D connector 304827
Contains connectors and all through bolts	
4x	HST3-R M16x135 35/15 2105876
Bracing include connectors	
1x	MIC-U-MA 304806
incl. all connectivity material	
1x	MI-90 girder See point "14"
1x	MIC-CU-MA 304828
incl. all connectivity material	
2x	HST3-R M12x105 30/10 2105869

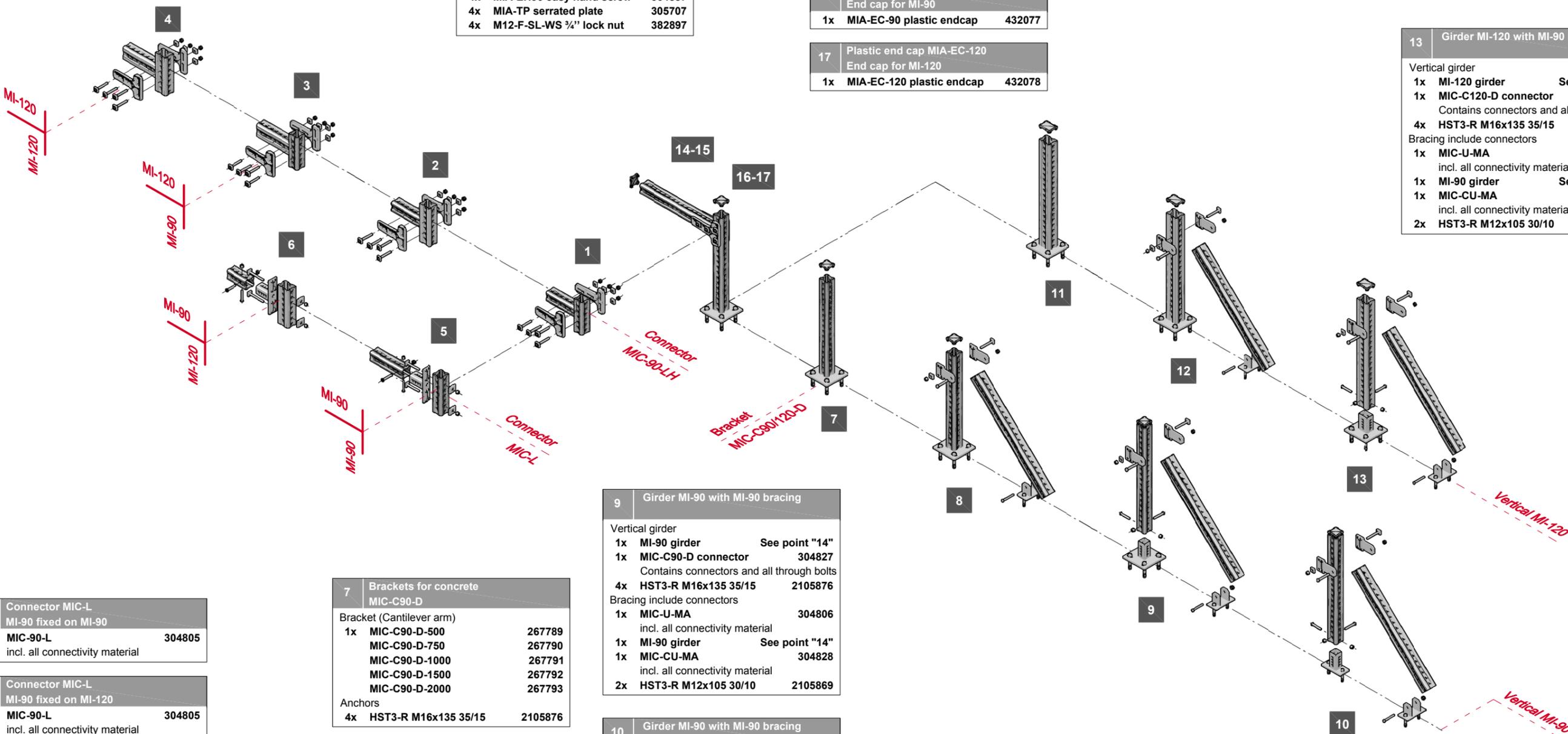
10	Girder MI-90 with MI-90 bracing
Vertical girder	
1x	MI-90 girder See point "14"
1x	MIC-C90-AA connector 304825
Contains connectors and all through bolts	
2x	HST3-R M12x105 30/10 2105869
Bracing include connectors	
1x	MIC-U-MA 304806
incl. all connectivity material	
1x	MI-90 girder See point "14"
1x	MIC-CU-MA 304828
incl. all connectivity material	
2x	HST3-R M12x105 30/10 2105869

7	Brackets for concrete MIC-C90-D
Bracket (Cantilever arm)	
1x	MIC-C90-D-500 267789
	MIC-C90-D-750 267790
	MIC-C90-D-1000 267791
	MIC-C90-D-1500 267792
	MIC-C90-D-2000 267793
Anchors	
4x	HST3-R M16x135 35/15 2105876

8	Bracket MIC-C90-D with MI-90 bracing
Bracket (Cantilever arm)	
1x	MIC-C90-D bracket See point "7"
4x	HST3-R M16x135 35/15 2105876
Bracing include connectors	
1x	MIC-U-MA 304806
incl. all connectivity material	
1x	MI-90 girder See point "14"
1x	MIC-CU-MA 304828
incl. all connectivity material	
2x	HST3-R M12x105 30/10 2105869

5	Connector MIC-L MI-90 fixed on MI-90
1x	MIC-90-L 304805
incl. all connectivity material	

6	Connector MIC-L MI-90 fixed on MI-120
1x	MIC-90-L 304805
incl. all connectivity material	
2x	MIA-EH120 easy screw 304888
the original MIA-EH 90 from the package will remain unused	



Application description	Application	Product lines	Base material
MI System - L-tree On Concrete		MI System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Floor Tree-L On Concrete - Options

6	Girders MIQ-90	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

7	Plastic end cap MIA-EC-90 End cap for MI-90	
	1x MIA-EC-90 plastic endcap	432077

1	Connector MIC-90-LH MIQ-90 fixed on MIQ-90	
Angle does not include all connectivity material		
	1x MIC-90-LH	2048107
Connectivity material ordered separately		
	4x MIA-EH90 easy hand screw	304887
	4x MIA-TP serrated plate	305707
	4x M12-F-SL-WS 3/4" lock nut	382897

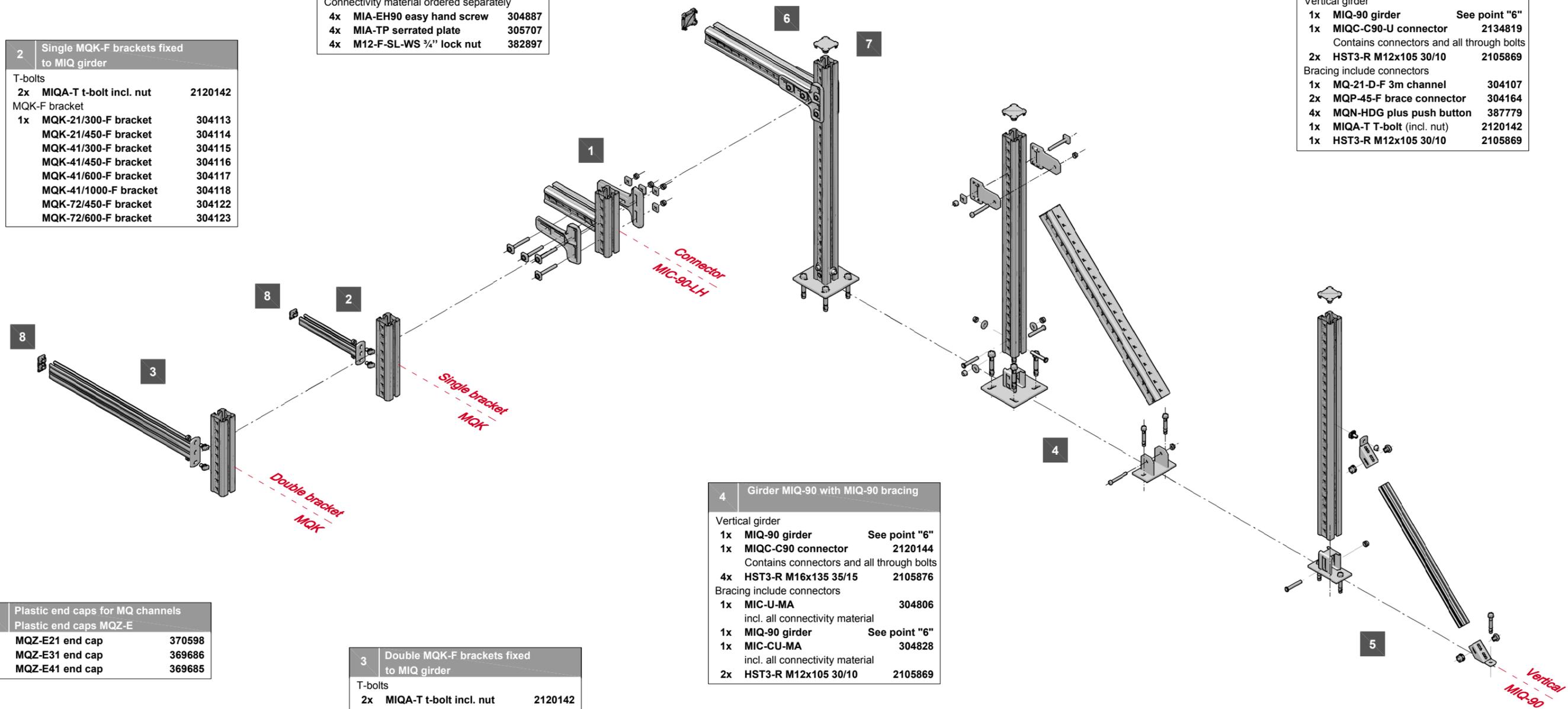
2	Single MQK-F brackets fixed to MIQ girder	
T-bolts		
	2x MIQA-T t-bolt incl. nut	2120142
MQK-F bracket		
	1x MQK-21/300-F bracket	304113
	MQK-21/450-F bracket	304114
	MQK-41/300-F bracket	304115
	MQK-41/450-F bracket	304116
	MQK-41/600-F bracket	304117
	MQK-41/1000-F bracket	304118
	MQK-72/450-F bracket	304122
	MQK-72/600-F bracket	304123

5	Girder MIQ-90 with MQ-41 bracing	
Vertical girder		
	1x MIQ-90 girder	See point "6"
	1x MIQC-C90-U connector	2134819
Contains connectors and all through bolts		
	2x HST3-R M12x105 30/10	2105869
Bracing include connectors		
	1x MQ-21-D-F 3m channel	304107
	2x MQP-45-F brace connector	304164
	4x MQN-HDG plus push button	387779
	1x MIQA-T T-bolt (incl. nut)	2120142
	1x HST3-R M12x105 30/10	2105869

4	Girder MIQ-90 with MIQ-90 bracing	
Vertical girder		
	1x MIQ-90 girder	See point "6"
	1x MIQC-C90 connector	2120144
Contains connectors and all through bolts		
	4x HST3-R M16x135 35/15	2105876
Bracing include connectors		
	1x MIC-U-MA	304806
incl. all connectivity material		
	1x MIQ-90 girder	See point "6"
	1x MIC-CU-MA	304828
incl. all connectivity material		
	2x HST3-R M12x105 30/10	2105869

3	Double MQK-F brackets fixed to MIQ girder	
T-bolts		
	2x MIQA-T t-bolt incl. nut	2120142
MQK-F bracket		
	1x MQK-21 D/300-F bracket	304124
	MQK-21 D/450-F bracket	304125
	MQK-21 D/600-F bracket	304126
	MQK-41 D/1000-F bracket	304127

8	Plastic end caps for MQ channels Plastic end caps MQZ-E	
	MQZ-E21 end cap	370598
	MQZ-E31 end cap	369686
	MQZ-E41 end cap	369685



Application description	Application	Product lines	Base material
MIQ System - L-tree On Concrete	 9	MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Floor Tree-L On Concrete - Options

1	Connector MIC-90-LH MIQ-90 fixed on MI-90
2	Connector MIC-90-LH MIQ-90 fixed on MI-120
Angle does not include all connectivity material	
1x	MIC-90-LH 2048107
Connectivity material ordered separately	
4x	MIA-EH90 easy hand screw 304887
4x	MIA-TP serrated plate 305707
4x	M12-F-SL-WS 3/4" lock nut 382897

10	Girders MIQ-90
	MIQ-90 3m girder 2119866
	MIQ-90 6m girder 2119867

11	Girders MI-90
	MI-90 3m girder 304798
	MI-90 6m girder 304799

12	Girders MI-120
	MI-120 3m girder 304800
	MI-120 6m girder 304801

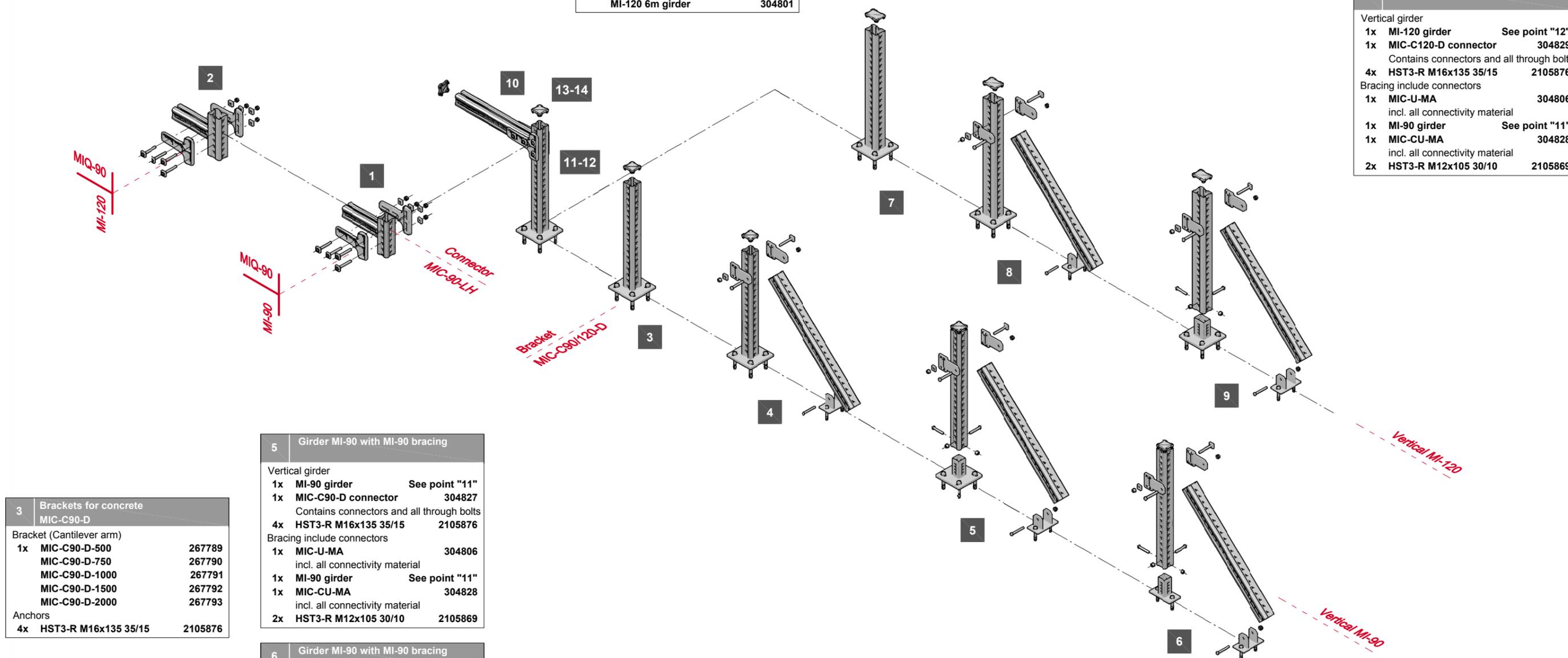
13	Plastic end cap MIA-EC-90 End cap for MI-90
1x	MIA-EC-90 plastic endcap 432077

14	Plastic end cap MIA-EC-120 End cap for MI-120
1x	MIA-EC-120 plastic endcap 432078

7	Brackets for concrete MIC-C120-D
Bracket (Cantilever arm)	
1x	MIC-C120-D-500 270468
	MIC-C120-D-750 270469
	MIC-C120-D-1000 270470
	MIC-C120-D-1500 270471
	MIC-C120-D-2000 270472
Anchors	
4x	HST3-R M16x135 35/15 2105876

8	Bracket MIC-C120-D with MI-90 bracing
Bracket (Cantilever arm)	
1x	MIC-C120-D bracket See point "7"
4x	HST3-R M16x135 35/15 2105876
Bracing include connectors	
1x	MIC-U-MA 304806
incl. all connectivity material	
1x	MI-90 girder See point "11"
1x	MIC-CU-MA 304828
incl. all connectivity material	
2x	HST3-R M12x105 30/10 2105869

9	Girder MI-120 with MI-90 bracing
Vertical girder	
1x	MI-120 girder See point "12"
1x	MIC-C120-D connector 304829
Contains connectors and all through bolts	
4x	HST3-R M16x135 35/15 2105876
Bracing include connectors	
1x	MIC-U-MA 304806
incl. all connectivity material	
1x	MI-90 girder See point "11"
1x	MIC-CU-MA 304828
incl. all connectivity material	
2x	HST3-R M12x105 30/10 2105869



3	Brackets for concrete MIC-C90-D
Bracket (Cantilever arm)	
1x	MIC-C90-D-500 267789
	MIC-C90-D-750 267790
	MIC-C90-D-1000 267791
	MIC-C90-D-1500 267792
	MIC-C90-D-2000 267793
Anchors	
4x	HST3-R M16x135 35/15 2105876

5	Girder MI-90 with MI-90 bracing
Vertical girder	
1x	MI-90 girder See point "11"
1x	MIC-C90-D connector 304827
Contains connectors and all through bolts	
4x	HST3-R M16x135 35/15 2105876
Bracing include connectors	
1x	MIC-U-MA 304806
incl. all connectivity material	
1x	MI-90 girder See point "11"
1x	MIC-CU-MA 304828
incl. all connectivity material	
2x	HST3-R M12x105 30/10 2105869

4	Bracket MIC-C90-D with MI-90 bracing
Bracket (Cantilever arm)	
1x	MIC-C90-D bracket See point "3"
4x	HST3-R M16x135 35/15 2105876
Bracing include connectors	
1x	MIC-U-MA 304806
incl. all connectivity material	
1x	MI-90 girder See point "11"
1x	MIC-CU-MA 304828
incl. all connectivity material	
2x	HST3-R M12x105 30/10 2105869

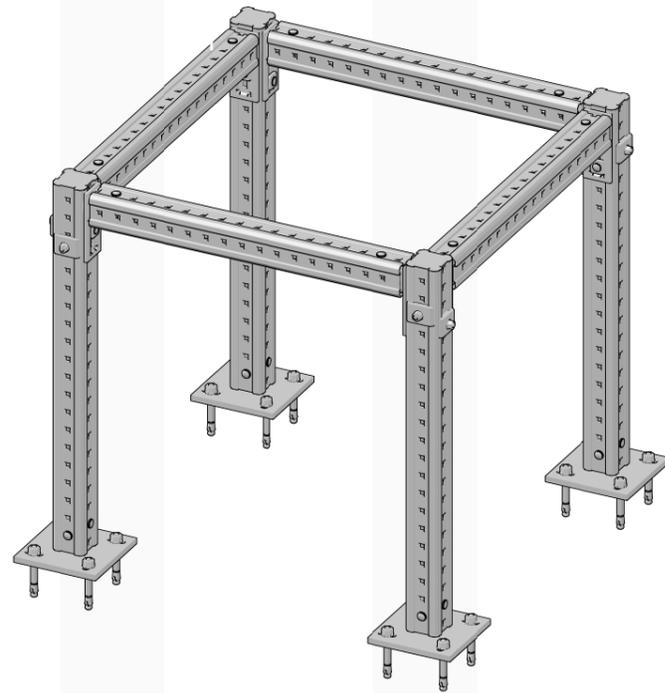
6	Girder MI-90 with MI-90 bracing
Vertical girder	
1x	MI-90 girder See point "11"
1x	MIC-C90-AA connector 304825
Contains connectors and all through bolts	
2x	HST3-R M12x105 30/10 2105869
Bracing include connectors	
1x	MIC-U-MA 304806
incl. all connectivity material	
1x	MI-90 girder See point "11"
1x	MIC-CU-MA 304828
incl. all connectivity material	
2x	HST3-R M12x105 30/10 2105869

Application description	Application	Product lines	Base material
MI/MIQ System - L-tree On Concrete		MI/MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Floor 3D Cube On Concrete - Options

Horizontal MI-90 Options

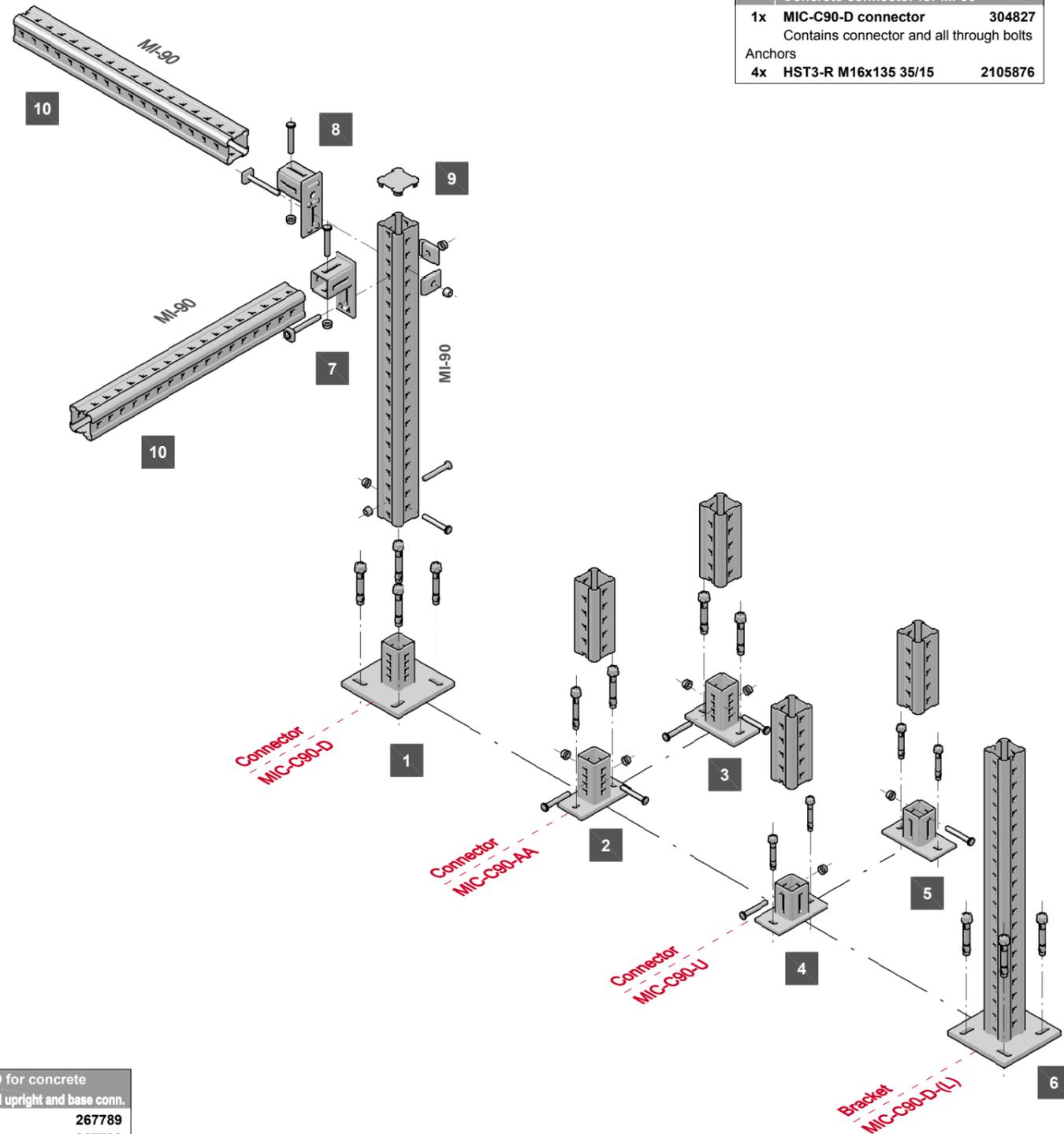


7	Connector MIC-90-U MI-90 fixed on MI-90	
8	Connector MIC-90-U MI-90 fixed on MI-90	
1x	MIC-90-U connector	304803
Contains connectors, all through bolts, back plate and lock nut		

9	Plastic end cap MIA-EC-90 End cap for MIQ-90	
1x	MIA-EC-90 plastic endcap	432077

10	Girders MI-90	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

6	Brackets MIC-C90-D for concrete Bracket instead of vertical upright and base conn.	
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
Anchors		
4x	HST3-R M16x135 35/15	2105876



1	Connector MIC-C90-D Concrete connector for MI-90	
1x	MIC-C90-D connector	304827
Contains connector and all through bolts		
Anchors		
4x	HST3-R M16x135 35/15	2105876

2	Connector MIC-C90-AA Concrete connector for MI-90	
3	Connector MIC-C90-AA Concrete connector for MI-90	
1x	MIC-C90-AA connector	304825
contains connectors and all through bolts		
Anchors		
2x	HST3-R M12x115 40/20	2105870

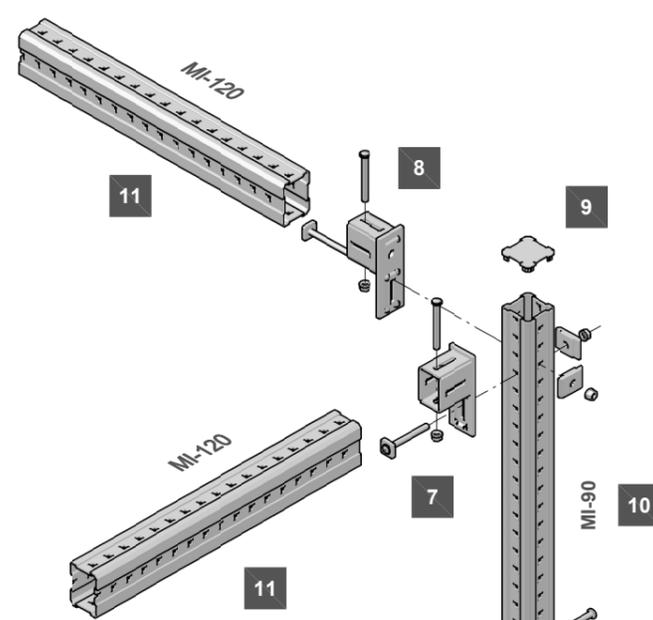
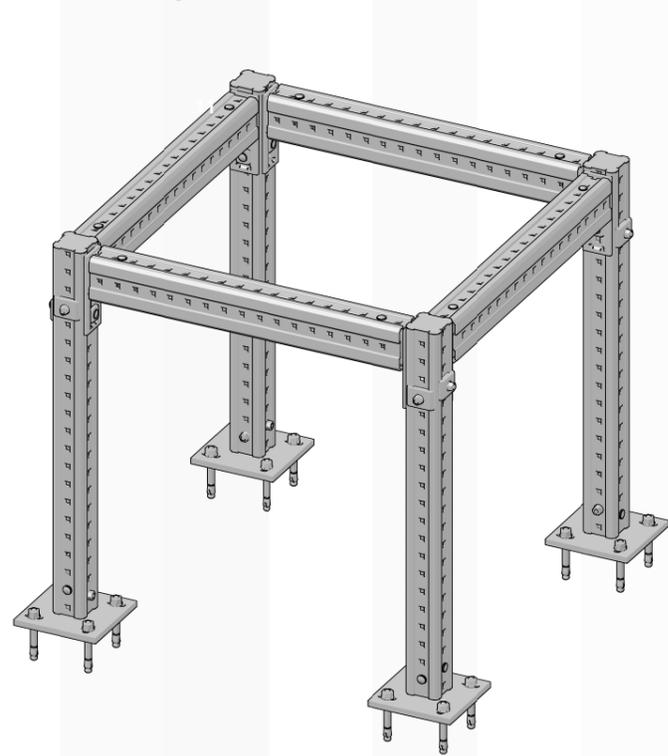
4	Connector MIC-C90-U Concrete connector for MI-90	
5	Connector MIC-C90-U Concrete connector for MI-90	
1x	MIC-C90-U connector	304826
contains connectors and all through bolts		
Anchors		
2x	HST3-R M12x115 30/10	2105869

Application description	Application	Product lines	Base material
MI System - Floor 3D Cube On Concrete		10 MI System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Floor 3D Cube On Concrete- Options

Horizontal MI-120 Options



7	Connector MIC-120-U MI-120 fixed on MI-90	
8	Connector MIC-120-U MI-120 fixed on MI-90	
1x	MIC-120-U connector	304804
Contains connectors, all through bolts, back plate and lock nut		

6	Brackets MIC-C90-D for concrete Bracket instead of vertical upright and base conn.	
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
Anchors		
4x	HST3-R M16x135 35/15	2105876

9	Plastic end cap MIA-EC-90 End cap for MIQ-90	
1x	MIA-EC-90 plastic endcap	432077

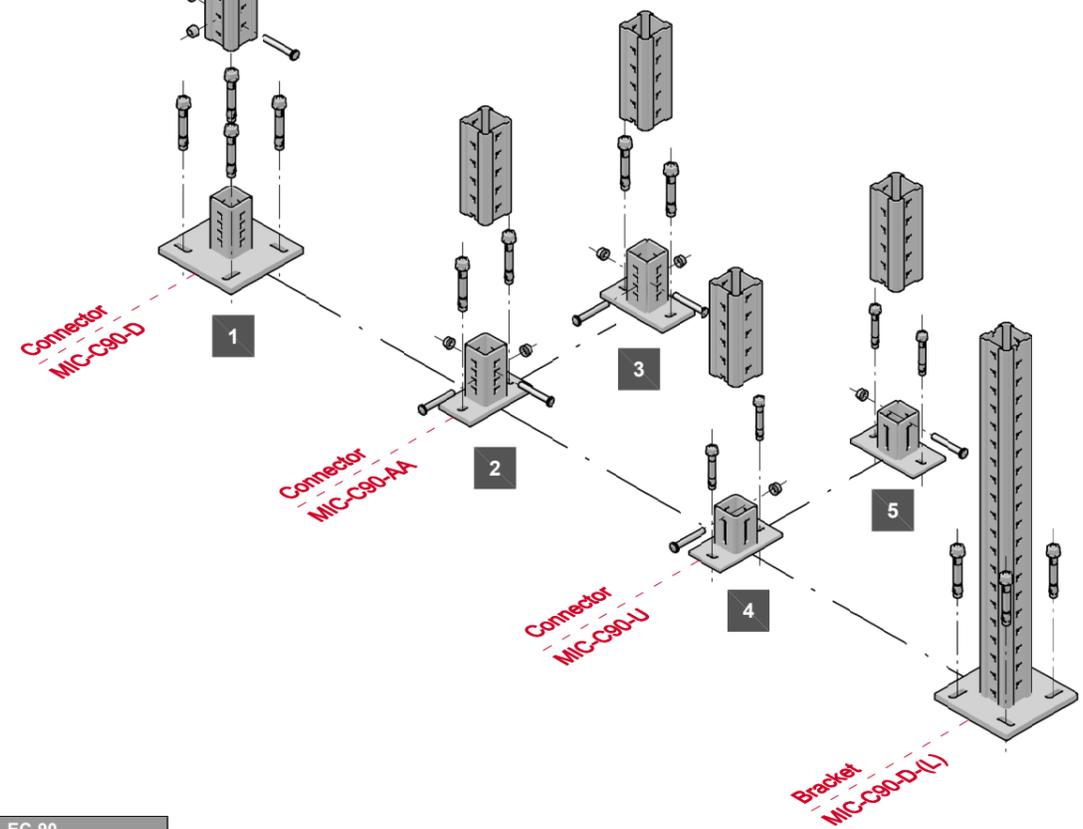
10	Girders MI-90	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

11	Girders MI-120	
	MI-120 3m girder	304800
	MI-120 6m girder	304801

1	Connector MIC-C90-D Concrete connector for MI-90	
1x	MIC-C90-D connector	304827
Contains connector and all through bolts		
Anchors		
4x	HST3-R M16x135 35/15	2105876

2	Connector MIC-C90-AA Concrete connector for MI-90	
3	Connector MIC-C90-AA Concrete connector for MI-90	
1x	MIC-C90-AA connector	304825
contains connectors and all through bolts		
Anchors		
2x	HST3-R M12x115 40/20	2105870

4	Connector MIC-C90-U Concrete connector for MI-90	
5	Connector MIC-C90-U Concrete connector for MI-90	
1x	MIC-C90-U connector	304826
contains connectors and all through bolts		
Anchors		
2x	HST3-R M12x115 30/10	2105869

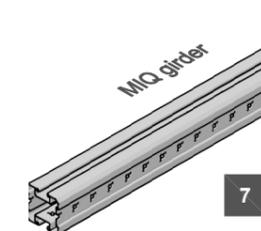
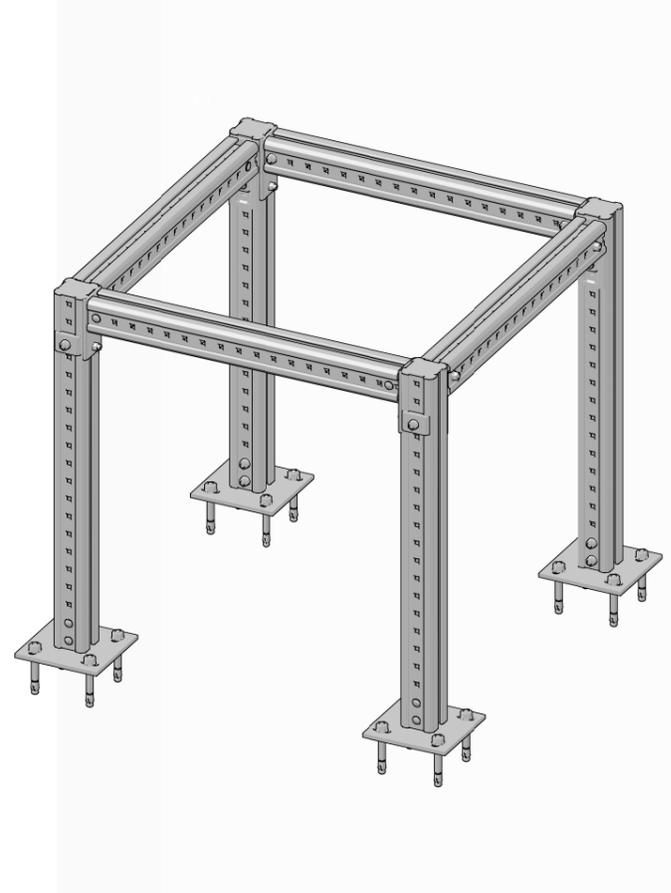


Application description	Application	Product lines	Base material
MI System - Floor 3D Cube On Concrete	 10	MI System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Floor 3D Cube On Concrete - Options

MIQ-90 Options



5	Connector MIQ-90-MI MIQ-90 fixed on rotated MIQ-90
1x	MIQ-90-MI connector 2140257 contains connectors and all through bolts

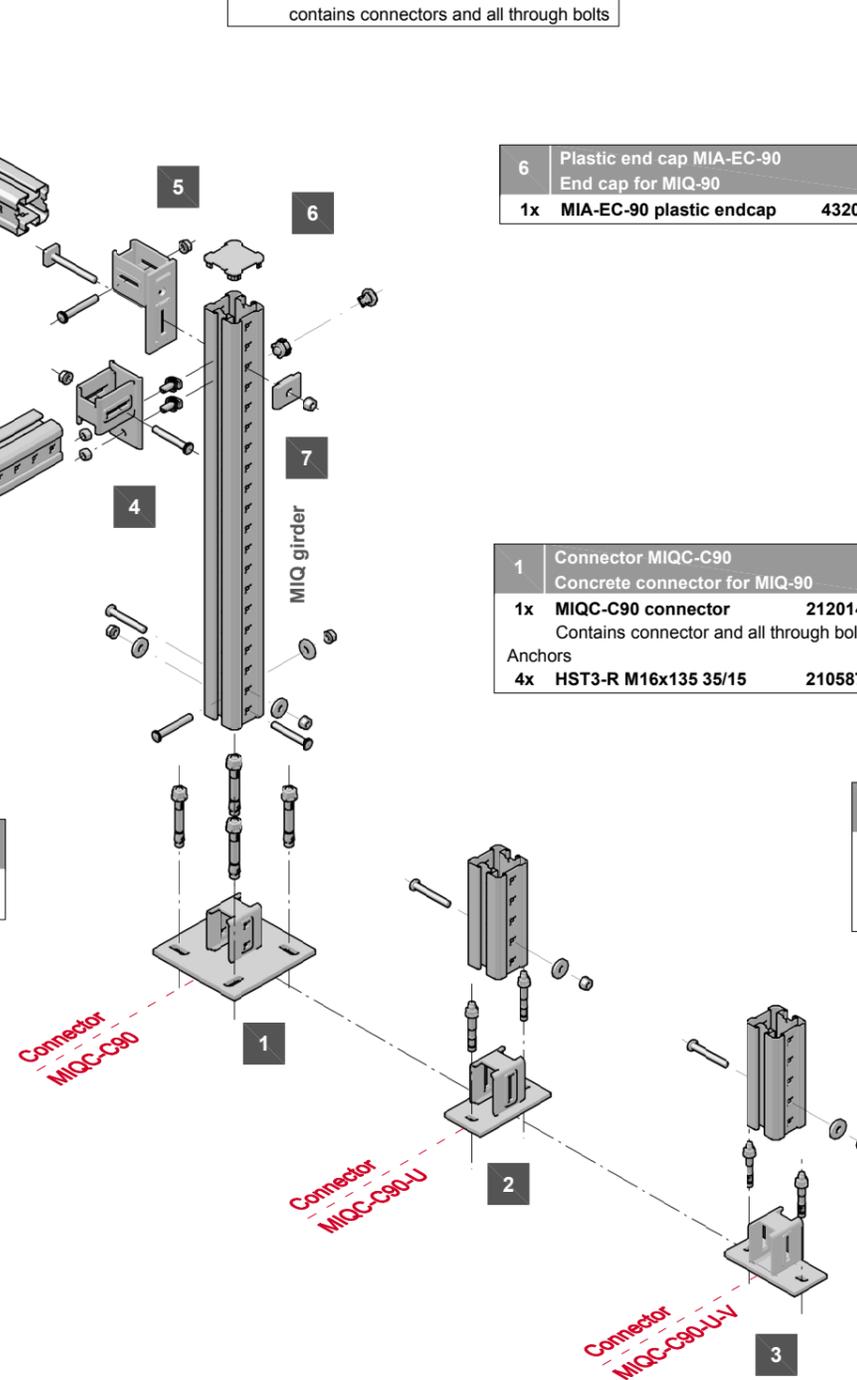
6	Plastic end cap MIA-EC-90 End cap for MIQ-90
1x	MIA-EC-90 plastic endcap 432077

1	Connector MIQC-C90 Concrete connector for MIQ-90
1x	MIQC-C90 connector 2120144 Contains connector and all through bolts
Anchors	
4x	HST3-R M16x135 35/15 2105876

2	Connector MIQC-C90-U Concrete connector for MI-90
1x	MIQC-C90-U connector 2134819 contains connectors and all through bolts
Anchors	
2x	HST3-R M12x115 40/20 2105870

3	Connector MIQC-C90-U-V Concrete connector for MIQ-90
1x	MIQC-C90-U-V connector 2161806 contains connectors and all through bolts
Anchors	
2x	HST3-R M12x105 30/10 2105869

4	Connector MIQC-90-HT MIQ-90 fixed on MIQ-90
1x	MIQC-90-HT connector 2123881 contains connectors and all through bolts



7	Girders MIQ-90
	MIQ-90 3m girder 2119866
	MIQ-90 6m girder 2119867

Application description	Application	Product lines	Base material
MIQ System - 3D Cube On Concrete	 10	MIQ System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Floor 3D Cube On Concrete - Options

Horizontal MIQ-90 Options

9	Plastic end cap MIA-EC-90 End cap for MIQ-90
1x	MIA-EC-90 plastic endcap 432077

1	Connector MIC-C90-D Concrete connector for MI-90
1x	MIC-C90-D connector 304827 Contains connector and all through bolts
Anchors	
4x	HST3-R M16x135 35/15 2105876

2	Connector MIC-C90-AA Concrete connector for MI-90
3	Connector MIC-C90-AA Concrete connector for MI-90
1x	MIC-C90-AA connector 304825 contains connectors and all through bolts
Anchors	
2x	HST3-R M12x115 40/20 2105870

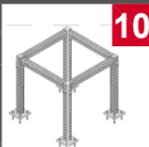
4	Connector MIC-C90-U Concrete connector for MI-90
5	Connector MIC-C90-U Concrete connector for MI-90
1x	MIC-C90-U connector 304826 contains connectors and all through bolts
Anchors	
2x	HST3-R M12x115 30/10 2105869

7	Connector MIQC-90-MI MIQ-90 fixed on MI-90
8	Connector MIQC-90-MI MIQ-90 fixed on MI-90
1x	MIQC-90-MI connector 2140257 Contains connectors, all through bolts, back plate and lock nut

6	Brackets MIC-C90-D for concrete Bracket instead of vertical upright and base conn.
1x	MIC-C90-D-500 267789
	MIC-C90-D-750 267790
	MIC-C90-D-1000 267791
	MIC-C90-D-1500 267792
	MIC-C90-D-2000 267793
Anchors	
4x	HST3-R M16x135 35/15 2105876

10	Girders MIQ-90
	MIQ-90 3m girder 2119866
	MIQ-90 6m girder 2119867

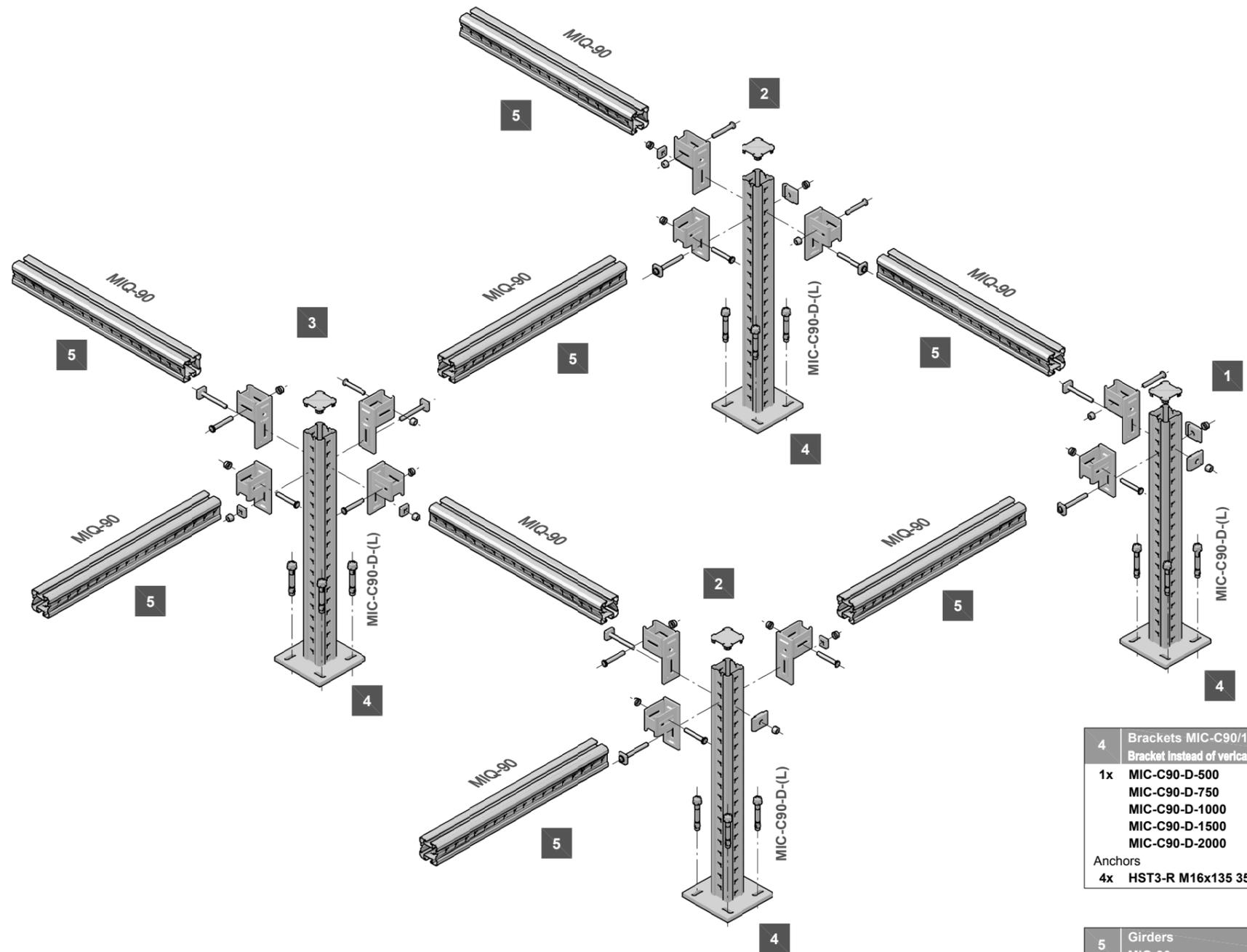
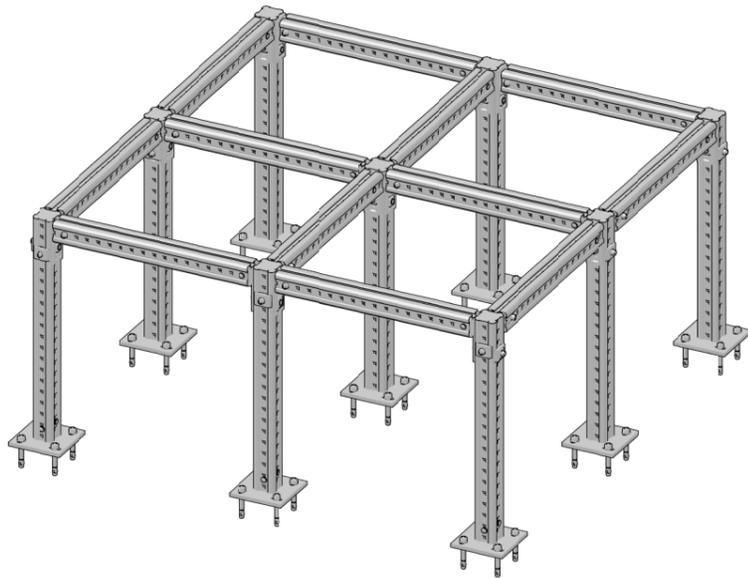
11	Girders MI-90
	MI-90 3m girder 304798
	MI-90 6m girder 304799

Application description	Application	Product lines	Base material
MI/MIQ System - Floor 3D Cube		MI/MIQ System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Floor 3D Cube More Fields On Concrete - Options

Horizontal MIQ-90 Options



1	Node with 2 girders - corner MIQ-90 fixed on MIC-C90 bracket	
2x	MIQ-90 girder	Various
1x	MIC-C90 bracket	Various
2x	MIQ-90-MI connector	2140257
	incl. all connectivity material	
1x	MIA-EC-90 plastic endcap	432077

2	Node with 3 girders MIQ-90 fixed on MIC-C90 bracket	
3x	MIQ-90 girder	Various
1x	MIC-C90 bracket	Various
3x	MIQ-90-MI connector	2140257
	1x MIA-EH90 + 2x MIA-EH-P + 1x M12-F-SL-WS 3/4" will remain unused	
1x	MIA-TP toothed plate	305707
1x	MIA-EC-90 plastic endcap	432077

3	Node with 4 girders MIQ-90 fixed on MIC-C90 bracket	
4x	MIQ-90 girder	Various
1x	MIC-C90 bracket	Various
4x	MIQ-90-MI connector	2140257
	2x MIA-EH90 + 4x MIA-EH-P + 2x M12-F-SL-WS 3/4" will remain unused	
2x	MIA-TP toothed plate	305707
1x	MIA-EC-90 plastic endcap	432077

4	Brackets MIC-C90/120-D for concrete Bracket instead of vertical upright and base conn.	
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
	Anchors	
4x	HST3-R M16x135 35/15	2105876

5	Girders MIQ-90	
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

Application description	Application	Product lines	Base material
MI/MIQ System - Floor 3D Cube		MI/MIQ System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Wall Ceiling Frame On Concrete - Options

1	Connector MIC-U MI-90 fixed on MI-90	
1x	MIC-90-U	304803
	incl. all connectivity material	

2	Connector MIC-U MI-90 fixed on MI-120	
1x	MIC-90-U	304803
	incl. all connectivity material	
1x	MIA-EH120 easy screw	304888
	the original MIA-EH 90 from the package will remain unused	

4	Connector MIC-U MI-120 fixed on MI-120	
1x	MIC-120-U	304804
	incl. all connectivity material	
1x	MIA-EH120 easy screw	304888
	the original MIA-EH 90 from the package will remain unused	

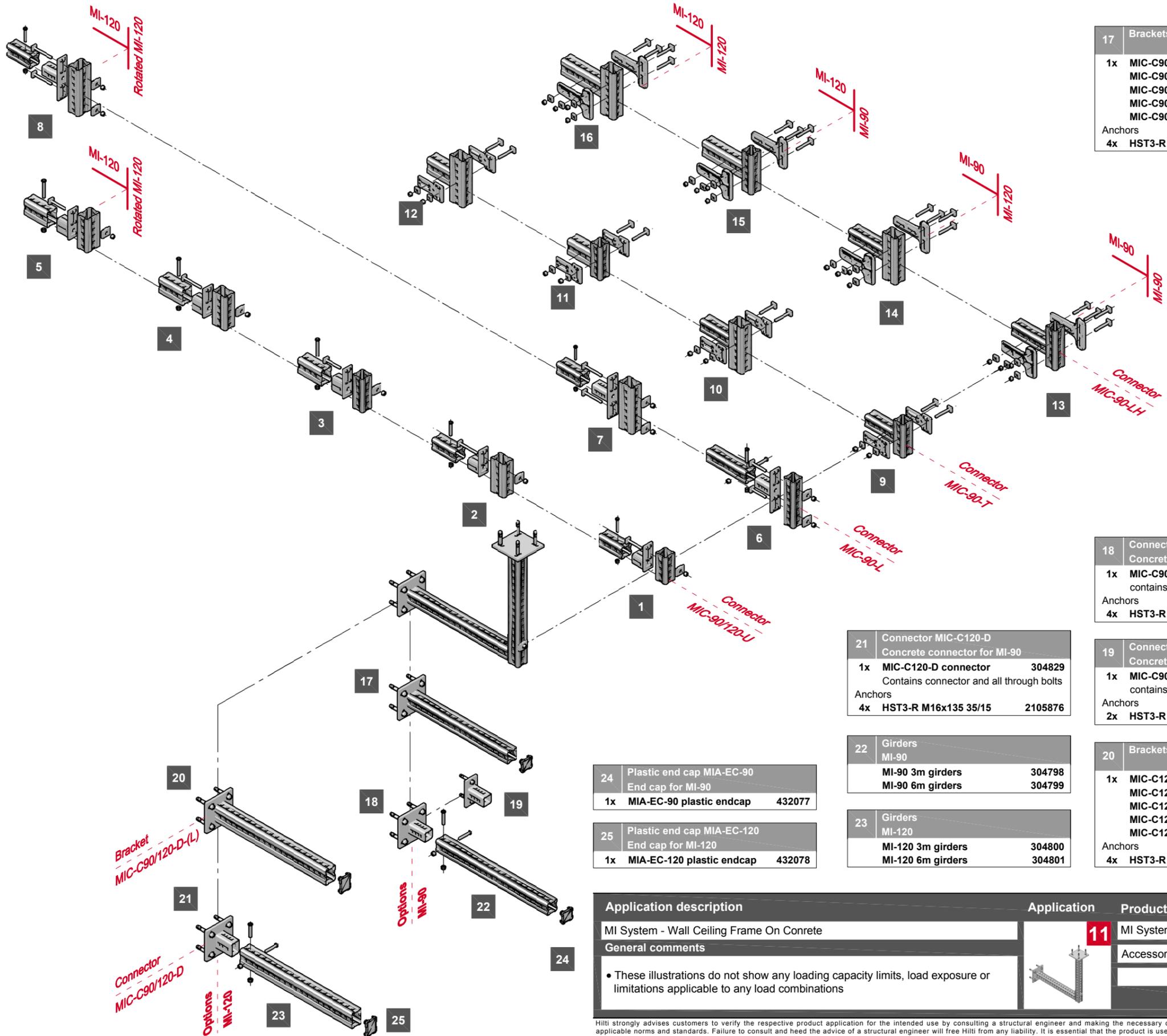
3	Connector MIC-U MI-120 fixed on rotated MI-120	
5	Connector MIC-U MI-120 fixed on rotated MI-120	
1x	MIC-120-U	304804
	incl. all connectivity material	

6	Connector MIC-L MI-90 fixed on MI-90	
8	Connector MIC-L MI-90 fixed on rotated MI-120	
1x	MIC-90-L	304805
	incl. all connectivity material	

7	Connector MIC-L MI-90 fixed on MI-120	
1x	MIC-90-L	304805
	incl. all connectivity material	
2x	MIA-EH120 easy screw	304888
	the original MIA-EH 90 from the package will remain unused	

9	Connector MIC-T MI-90 fixed on MI-90	
10	Connector MIC-T MI-90 fixed on MI-120	
11	Connector MIC-T MI-120 fixed on MI-90	
12	Connector MIC-T MI-120 fixed on MI-120	
1x	MIC-T	304807
	Incl. all connectivity material	

13	Connector MIC-90-LH MI-90 fixed on MI-90	
14	Connector MIC-90-LH MI-90 fixed on MI-120	
15	Connector MIC-90-LH MI-120 fixed on MI-90	
16	Connector MIC-90-LH MI-120 fixed on MI-120	
	Angle does not include all connectivity material	
1x	MIC-90-LH	2048107
	Connectivity material ordered separately	
4x	MIA-EH90 easy hand screw	304887
4x	MIA-TP serrated plate	305707
4x	M12-F-SL-WS 3/4" lock nut	382897



17	Brackets MIC-C90-D for concrete	
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
	Anchors	
4x	HST3-R M16x135 35/15	2105876

18	Connector MIC-C90-D Concrete connector for MI-90	
1x	MIC-C90-D connector	304827
	contains connectors and all through bolts	
	Anchors	
4x	HST3-R M16x135 35/15	2105876

19	Connector MIC-C90-AA Concrete connector for MI-90	
1x	MIC-C90-AA connector	304825
	contains connectors and all through bolts	
	Anchors	
2x	HST3-R M12x115 40/20	2105870

21	Connector MIC-C120-D Concrete connector for MI-90	
1x	MIC-C120-D connector	304829
	Contains connector and all through bolts	
	Anchors	
4x	HST3-R M16x135 35/15	2105876

22	Girders MI-90	
	MI-90 3m girders	304798
	MI-90 6m girders	304799

23	Girders MI-120	
	MI-120 3m girders	304800
	MI-120 6m girders	304801

20	Brackets MIC-C120-D for concrete	
1x	MIC-C120-D-500	270468
	MIC-C120-D-750	270469
	MIC-C120-D-1000	270470
	MIC-C120-D-1500	270471
	MIC-C120-D-2000	270472
	Anchors	
4x	HST3-R M16x135 35/15	2105876

24	Plastic end cap MIA-EC-90 End cap for MI-90	
1x	MIA-EC-90 plastic endcap	432077

25	Plastic end cap MIA-EC-120 End cap for MI-120	
1x	MIA-EC-120 plastic endcap	432078

Application description	Application	Product lines	Base material
MI System - Wall Ceiling Frame On Concrete	11	MI System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

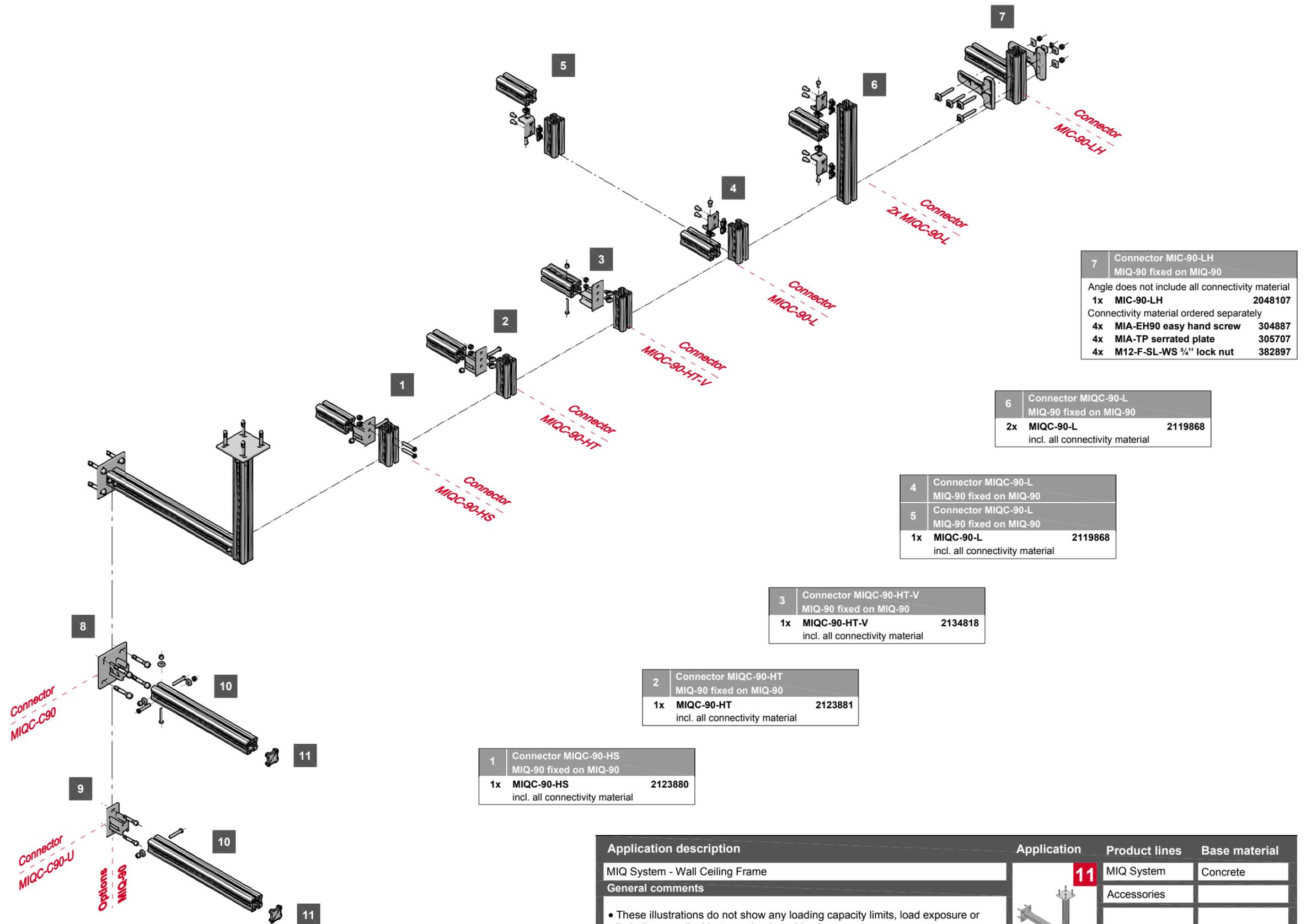
MIQ System - Wall Ceiling Frame On Concrete - Options

8	Connector MIQC-C90 Concrete connector for MIQ-90
1x	MIQC-C90 connector 2120144 contains connectors and all through bolts
Anchors	
4x	HST3-R M16x135 35/15 2105876

9	Connector MIQC-C90-U Concrete connector for MIQ-90
1x	MIQC-C90-U connector 2134819 contains connectors and all through bolts
Anchors	
2x	HST3-R M12x105 30/10 2105869

10	Girders MI-90
	MIQ-90 3m girder 2119866
	MIQ-90 6m girder 2119867

11	Plastic end cap MIA-EC-90 End cap for MIQ-90
1x	MIA-EC-90 plastic endcap 432077



7	Connector MIC-90-LH MIQ-90 fixed on MIQ-90
Angle does not include all connectivity material	
1x	MIC-90-LH 2048107
Connectivity material ordered separately	
4x	MIA-EH90 easy hand screw 304887
4x	MIA-TP serrated plate 305707
4x	M12-F-SL-WS 3/4" lock nut 382897

6	Connector MIQC-90-L MIQ-90 fixed on MIQ-90
2x	MIQC-90-L 2119868 incl. all connectivity material

4	Connector MIQC-90-L MIQ-90 fixed on MIQ-90
5	Connector MIQC-90-L MIQ-90 fixed on MIQ-90
1x	MIQC-90-L 2119868 incl. all connectivity material

3	Connector MIQC-90-HT-V MIQ-90 fixed on MIQ-90
1x	MIQC-90-HT-V 2134818 incl. all connectivity material

2	Connector MIQC-90-HT MIQ-90 fixed on MIQ-90
1x	MIQC-90-HT 2123881 incl. all connectivity material

1	Connector MIQC-90-HS MIQ-90 fixed on MIQ-90
1x	MIQC-90-HS 2123880 incl. all connectivity material

Application description	Application	Product lines	Base material
MIQ System - Wall Ceiling Frame		11 MIQ System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> • These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Wall Ceiling Rod On Concrete - Options

10 Brackets MIC-C120-D for concrete		
1x	MIC-C120-D-500	270468
	MIC-C120-D-750	270469
	MIC-C120-D-1000	270470
	MIC-C120-D-1500	270471
	MIC-C120-D-2000	270472
Anchors		
4x	HST3-R M16x135 35/15	2105876

7 Brackets MIC-C90-D for concrete		
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
Anchors		
4x	HST3-R M16x135 35/15	2105876

9 Connector MIC-C90-AA Concrete connector for MI-90		
1x	MIC-C90-AA connector	304825
contains connectors and all through bolts		
Anchors		
2x	HST3-R M12x115 40/20	2105870

11 Connector MIC-120-D Concrete connector for MI-90		
1x	MIC-120-D connector	304829
contains connectors and all through bolts		
Anchors		
4x	HST3-R M16x135 35/15	2105876
stud anchor		

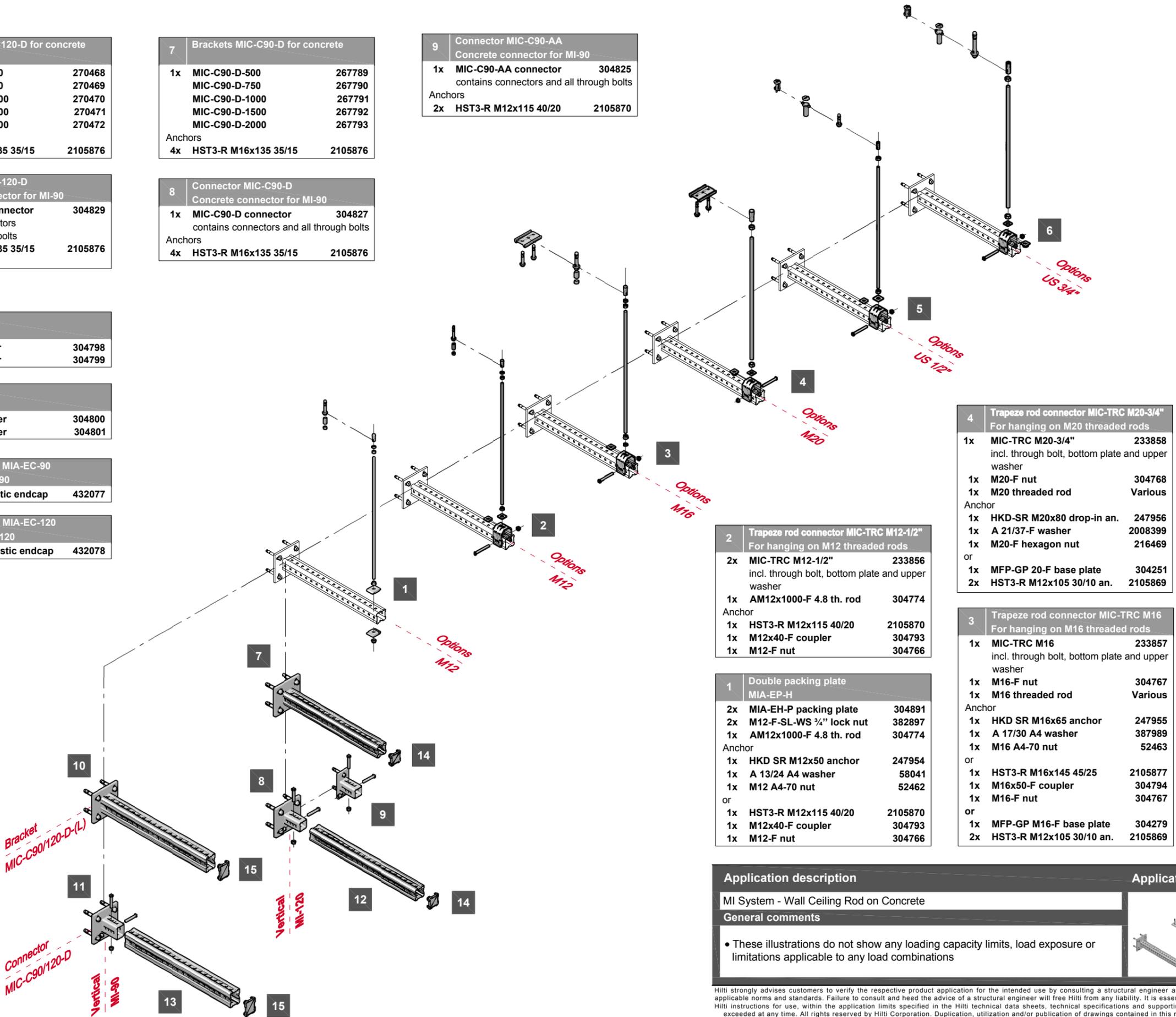
8 Connector MIC-C90-D Concrete connector for MI-90		
1x	MIC-C90-D connector	304827
contains connectors and all through bolts		
Anchors		
4x	HST3-R M16x135 35/15	2105876

12 Girders MI-90		
	MI-90 3m girder	304798
	MI-90 6m girder	304799

13 Girders MI-120		
	MI-120 3m girder	304800
	MI-120 6m girder	304801

14 Plastic end cap MIA-EC-90 End cap for MI-90		
1x	MIA-EC-90 plastic endcap	432077

15 Plastic end cap MIA-EC-120 End cap for MI-120		
1x	MIA-EC-120 plastic endcap	432078



US only		
6 Trapeze rod connector MIC-TRC 3/4"		
For hanging on 3/4" threaded rods		
2x	MIC-TRC M20-3/4"	233858
incl. through bolt, bottom plate and upper washer		
1x	3/4" x 10' threaded rod	309390
Anchor		
1x	HDI 3/4" drop-in anchor	336429
1x	3/4" washer	411760
1x	3/4" hexagon nut	411755
or		
1x	KB-TZ 1/2" x 3-3/4" anchor	387512
1x	3/4" rod coupler	411750
or		
1x	HCI-MD 3/4" cast-in anchor	2057328
or		
1x	HCI-WF 3/4" cast-in anchor	2057323
Note: Threaded rods, washer, nut and anchors are galvanized!		

US only		
5 Trapeze rod connector MIC-TRC 1/2"		
For hanging on 1/2" threaded pipes		
1x	MIC-TRC M12-1/2"	233856
incl. through bolt, bottom plate and upper washer		
1x	1/2" x 10' threaded rod	309388
Anchor		
1x	HDI+ 1/2" drop-in anchor	2080046
1x	1/2" washer	411758
1x	1/2" hexagon nut	411753
or		
1x	KB-TZ 1/2" x 3-3/4" anchor	387512
1x	1/2" rod coupler	411748
or		
1x	HCI-MD 1/2" cast-in anchor	2057326
or		
1x	HCI-WF 1/2" cast-in anchor	2057321
Note: Threaded rods, washer, nut and anchors are galvanized!		

4 Trapeze rod connector MIC-TRC M20-3/4"		
For hanging on M20 threaded rods		
1x	MIC-TRC M20-3/4"	233858
incl. through bolt, bottom plate and upper washer		
1x	M20-F nut	304768
1x	M20 threaded rod	Various
Anchor		
1x	HKD-SR M20x80 drop-in an.	247956
1x	A 21/37-F washer	2008399
1x	M20-F hexagon nut	216469
or		
1x	MFP-GP 20-F base plate	304251
2x	HST3-R M12x105 30/10 an.	2105869

2 Trapeze rod connector MIC-TRC M12-1/2"		
For hanging on M12 threaded rods		
2x	MIC-TRC M12-1/2"	233856
incl. through bolt, bottom plate and upper washer		
1x	AM12x1000-F 4.8 th. rod	304774
Anchor		
1x	HST3-R M12x115 40/20	2105870
1x	M12x40-F coupler	304793
1x	M12-F nut	304766

1 Double packing plate MIA-EP-H		
2x	MIA-EH-P packing plate	304891
2x	M12-F-SL-WS 3/4" lock nut	382897
1x	AM12x1000-F 4.8 th. rod	304774
Anchor		
1x	HKD SR M12x50 anchor	247954
1x	A 13/24 A4 washer	58041
1x	M12 A4-70 nut	52462
or		
1x	HST3-R M12x115 40/20	2105870
1x	M12x40-F coupler	304793
1x	M12-F nut	304766

3 Trapeze rod connector MIC-TRC M16		
For hanging on M16 threaded rods		
1x	MIC-TRC M16	233857
incl. through bolt, bottom plate and upper washer		
1x	M16-F nut	304767
1x	M16 threaded rod	Various
Anchor		
1x	HKD SR M16x65 anchor	247955
1x	A 17/30 A4 washer	387989
1x	M16 A4-70 nut	52463
or		
1x	HST3-R M16x145 45/25	2105877
1x	M16x50-F coupler	304794
1x	M16-F nut	304767
or		
1x	MFP-GP M16-F base plate	304279
2x	HST3-R M12x105 30/10 an.	2105869

M12 threaded rods		
1x	AM12x1000-F 4.8 t-rod	304774
	AM12x2000-F 4.8 t-rod	304775

M16 threaded rods		
1x	AM16x1000-F 4.8 t-rod	304776
	AM16x2000-F 4.8 t-rod	304777

M20 threaded rod		
1x	AM20x1000-F 4.8 t-rod	304778

Application description	Application	Product lines	Base material
MI System - Wall Ceiling Rod on Concrete	11	MI System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> • These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

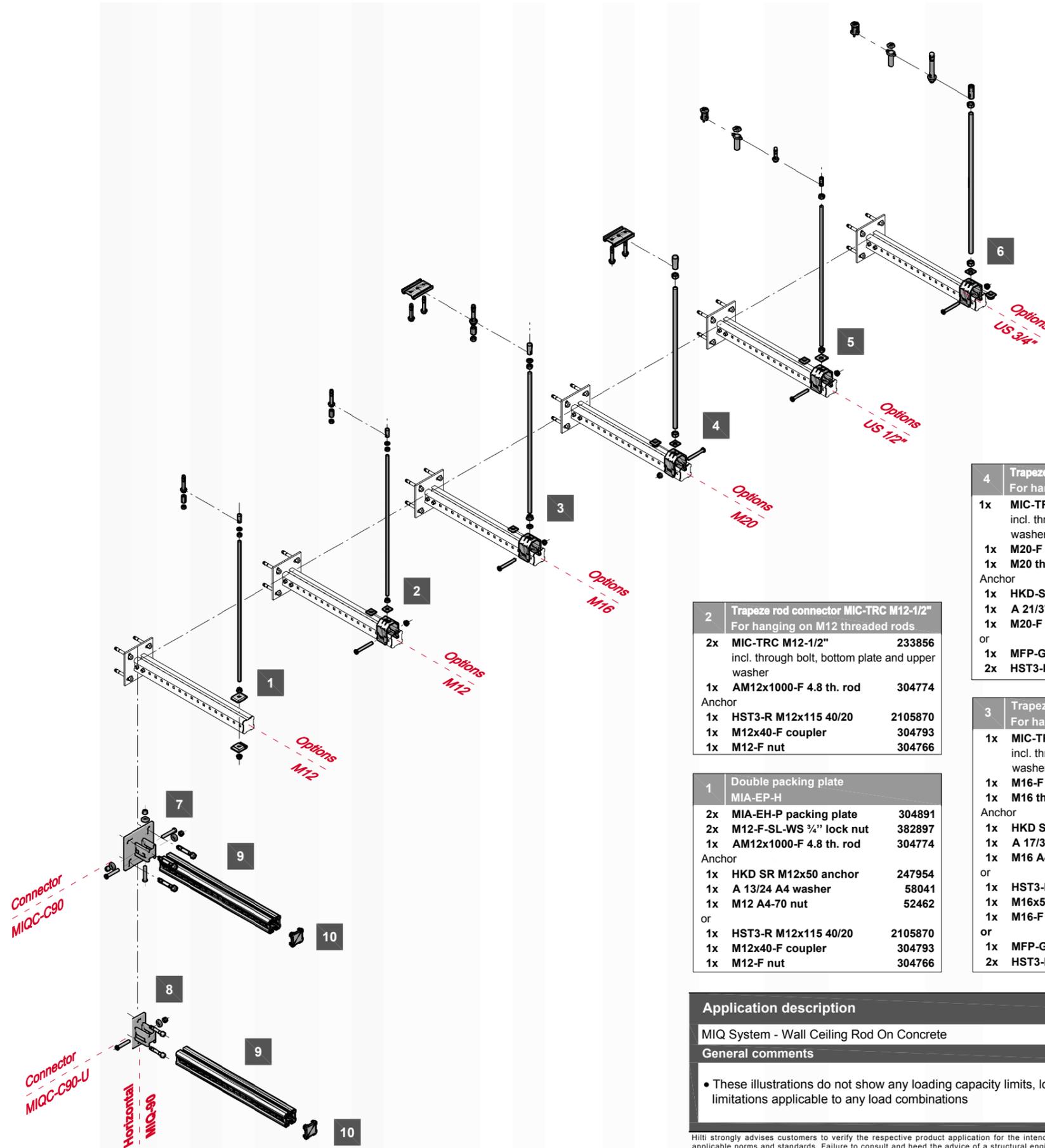
MIQ System - Wall Ceiling Rod On Concrete - Options

7	Connector MIQC-C90 Concrete connector for MIQ-90
1x	MIQC-C90 connector 2120144 contains connectors and all through bolts
4x	HST3-R M16x135 35/15 2105876 stud anchor

8	Connector MIQC-C90-U Concrete connector for MI-90
1x	MIQC-C90-U connector 2134839 contains connectors and all through bolts
Anchors	
2x	HST3-R M12x105 30/10 2105869

9	Girders MIQ-90
	MIQ-90 3m girder 2119866
	MIQ-90 6m girder 2119867

10	Plastic end cap MIA-EC-90 End cap for MIQ-90
1x	MIA-EC-90 plastic endcap 432077



2	Trapeze rod connector MIC-TRC M12-1/2" For hanging on M12 threaded rods
2x	MIC-TRC M12-1/2" 233856 incl. through bolt, bottom plate and upper washer
1x	AM12x1000-F 4.8 th. rod 304774
Anchor	
1x	HST3-R M12x115 40/20 2105870
1x	M12x40-F coupler 304793
1x	M12-F nut 304766

1	Double packing plate MIA-EP-H
2x	MIA-EH-P packing plate 304891
2x	M12-F-SL-WS 3/4" lock nut 382897
1x	AM12x1000-F 4.8 th. rod 304774
Anchor	
1x	HKD SR M12x50 anchor 247954
1x	A 13/24 A4 washer 58041
1x	M12 A4-70 nut 52462
or	
1x	HST3-R M12x115 40/20 2105870
1x	M12x40-F coupler 304793
1x	M12-F nut 304766

4	Trapeze rod connector MIC-TRC M20-3/4" For hanging on M20 threaded rods
1x	MIC-TRC M20-3/4" 233858 incl. through bolt, bottom plate and upper washer
1x	M20-F nut 304768
1x	M20 threaded rod Various
Anchor	
1x	HKD-SR M20x80 drop-in an. 247956
1x	A 21/37-F washer 2008399
1x	M20-F hexagon nut 216469
or	
1x	MFP-GP 20-F base plate 304251
2x	HST3-R M12x105 30/10 an. 2105869

3	Trapeze rod connector MIC-TRC M16 For hanging on M16 threaded rods
1x	MIC-TRC M16 233857 incl. through bolt, bottom plate and upper washer
1x	M16-F nut 304767
1x	M16 threaded rod Various
Anchor	
1x	HKD SR M16x65 anchor 247955
1x	A 17/30 A4 washer 387989
1x	M16 A4-70 nut 52463
or	
1x	HST3-R M16x145 45/25 2105877
1x	M16x50-F coupler 304794
1x	M16-F nut 304767
or	
1x	MFP-GP M16-F base plate 304279
2x	HST3-R M12x105 30/10 an. 2105869

US Only

6	Trapeze rod connector MIC-TRC 3/4" For hanging on 3/4" threaded rods
2x	MIC-TRC M20-3/4" 233858 incl. through bolt, bottom plate and upper washer
1x	3/4" x 10' threaded rod 309390
Anchor	
1x	HDI 3/4" drop-in anchor 336429
1x	3/4" washer 411760
1x	3/4" hexagon nut 411755
or	
1x	KB-TZ 1/2" x 3-3/4" anchor 387512
1x	3/4" rod coupler 411750
or	
1x	HCI-MD 3/4" cast-in anchor 2057328
or	
1x	HCI-WF 3/4" cast-in anchor 2057323
Note: Threaded rods, washer, nut and anchors are galvanized!	

US Only

5	Trapeze rod connector MIC-TRC 1/2" For hanging on 1/2" threaded pipes
1x	MIC-TRC M12-1/2" 233856 incl. through bolt, bottom plate and upper washer
1x	1/2" x 10' threaded rod 309388
Anchor	
1x	HDI+ 1/2" drop-in anchor 2080046
1x	1/2" washer 411758
1x	1/2" hexagon nut 411753
or	
1x	KB-TZ 1/2" x 3-3/4" anchor 387512
1x	1/2" rod coupler 411748
or	
1x	HCI-MD 1/2" cast-in anchor 2057326
or	
1x	HCI-WF 1/2" cast-in anchor 2057321
Note: Threaded rods, washer, nut and anchors are galvanized!	

M12 threaded rods	
1x	AM12x1000-F 4.8 t-rod 304774
	AM12x2000-F 4.8 t-rod 304775

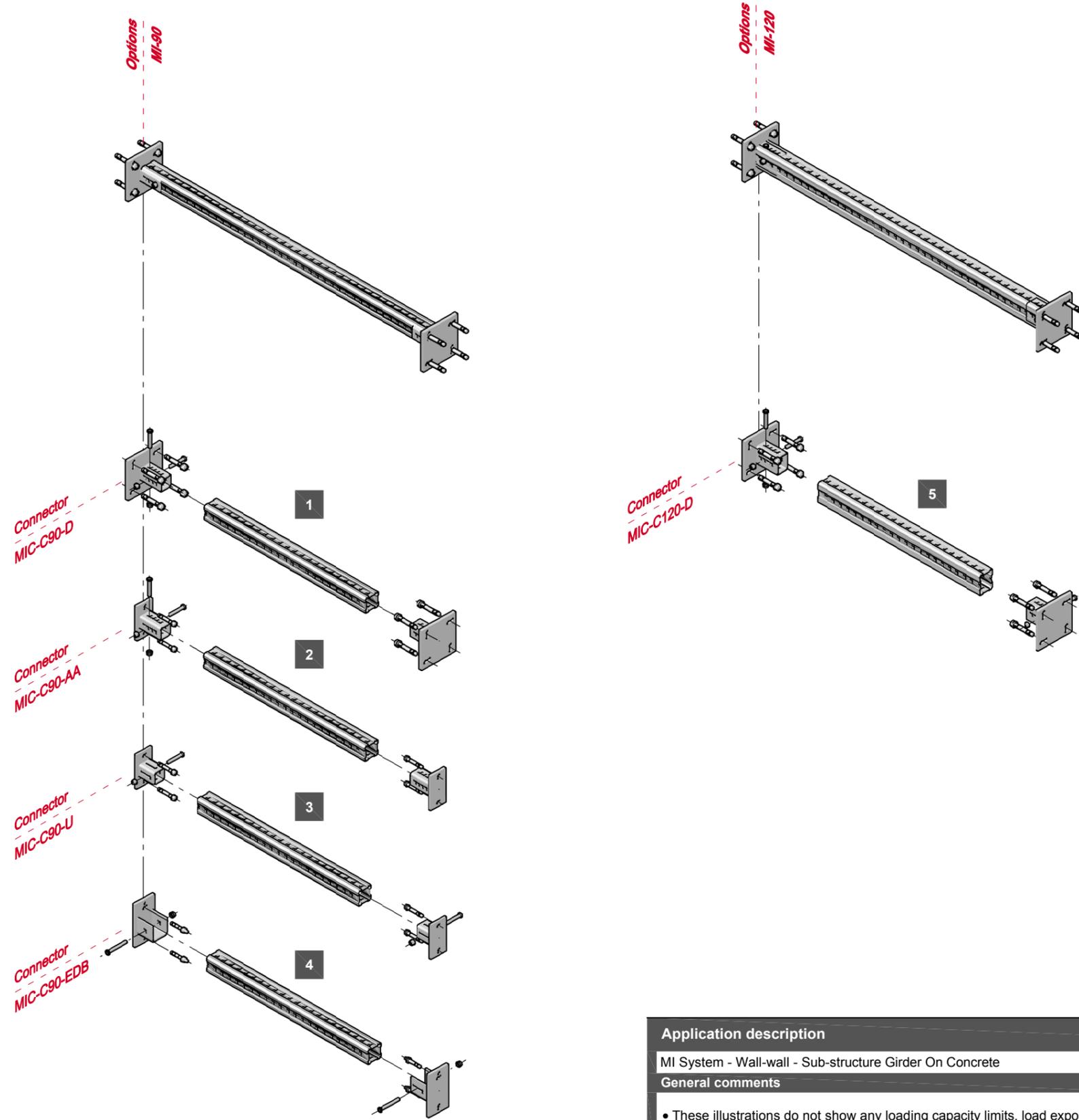
M16 threaded rods	
1x	AM16x1000-F 4.8 t-rod 304776
	AM16x2000-F 4.8 t-rod 304777

M20 threaded rod	
1x	AM20x1000-F 4.8 t-rod 304778

Application description	Application	Product lines	Base material
MIQ System - Wall Ceiling Rod On Concrete	11	MIQ System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> • These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Wall-wall - Sub-structure Girder On Concrete - Options



1	Connector MIC-C90-D Concrete connector for MI-90	
2x	MIC-C90-D connector	304827
contains connectors and all through bolts (2x MIA-EH90 + 2x M12-F-SL-WS 3/4" will be unused)		
1x	MI-90 girder	Various
Anchors		
8x	HST3-R M16x135 35/15	2105876

2	Connector MIC-C90-AA Concrete connector for MI-90	
2x	MIC-C90-AA connector	304825
contains connectors and all through bolts (2x MIA-EH90 + 2x M12-F-SL-WS 3/4" will be unused)		
1x	MI-90 girder	Various
Anchors		
4x	HST3-R M12x115 40/20	2105870

3	Connector MIC-C90-U Concrete connector for MI-90	
2x	MIC-C90-U connector	304826
contains connectors and all through bolts		
1x	MI-90 girder	Various
Anchors		
4x	HST3-R M12x105 30/10	2105869

4	Connector MIC-C90-EDB Concrete connector for MI-90	
1x	MIC-C90-EDB base plates	2149279
Sell in pair. Include 1x base plate with square hole and 1x base plate with longitudinal hole. Including screws and nuts for connection MI girder to base plates.		
1x	MI girder	Various
Anchors		
4x	HST3-R M12x115 40/20	2105870

5	Connector MIC-C120-D Concrete connector for MI-120	
2x	MIC-C120-D connector	304829
Contains connector and all through bolts (1x MIA-EH90 + 1x MIA-EH120 + 2x M12-F-SL-WS 3/4" will be unused)		
1x	MI-120 girder	Various
Anchors		
8x	HST3-R M16x135 35/15	2105876

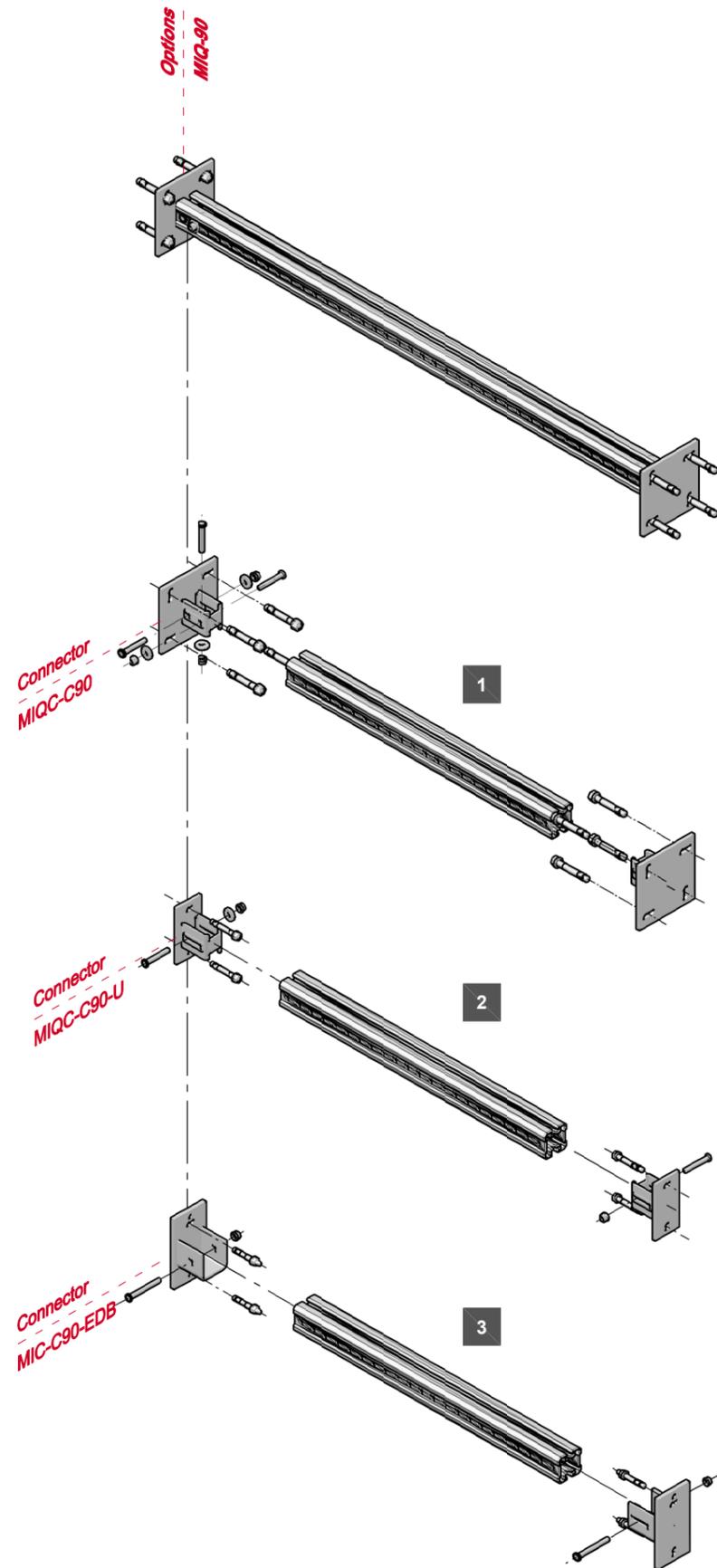
Girders	
MI-90	
MI-90 3m girders	304798
MI-90 6m girders	304799

Girders	
MI-120	
MI-120 3m girders	304800
MI-120 6m girders	304801

Application description	Application	Product lines	Base material
MI System - Wall-wall - Sub-structure Girder On Concrete	12	MI System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Wall-wall - Sub-structure Girder On Concrete - Options



1	Connector MIQC-C90 Concrete connector for MIQ-90
2x	MIQC-C90 connector 2120144 contains connectors and all through bolts (2x MIA-EH90 + 2x M12-F-SL-WS 3/4" will be unused)
1x	MIQ-90 girder Various
Anchors	
8x	HST3-R M16x135 35/15 2105876

2	Connector MIQC-C90-U Concrete connector for MIQ-90
2x	MIQC-C90-U connector 2134819 contains connectors and all through bolts (1x MIA-EH90 + 1x M12-F-SL-WS 3/4" will be unused)
1x	MIQ-90 girder Various
Anchors	
4x	HST3-R M12x105 30/10 2105869

3	Connector MIC-C90-EDB Concrete connector for MIQ-90
1x	MIC-C90-EDB base plates 2149279 Sell in pair. Include 1x base plate with square hole and 1x base plate with longitudinal hole. Including screws and nuts for connection MI girder to base plates.
1x	MIQ-90 girder Various
Anchors	
4x	HST3-R M12x115 40/20 2105870

Girders	
MI-90	
MIQ-90 3m girder	2119866
MIQ-90 6m girder	2119867

Application description	Application	Product lines	Base material
MIQ System - Wall-wall - Sub-structure Girder On Concrete - Options	12	MIQ System	Concrete
General comments		Accessories	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Floor Ceiling Frame On Concrete- Options

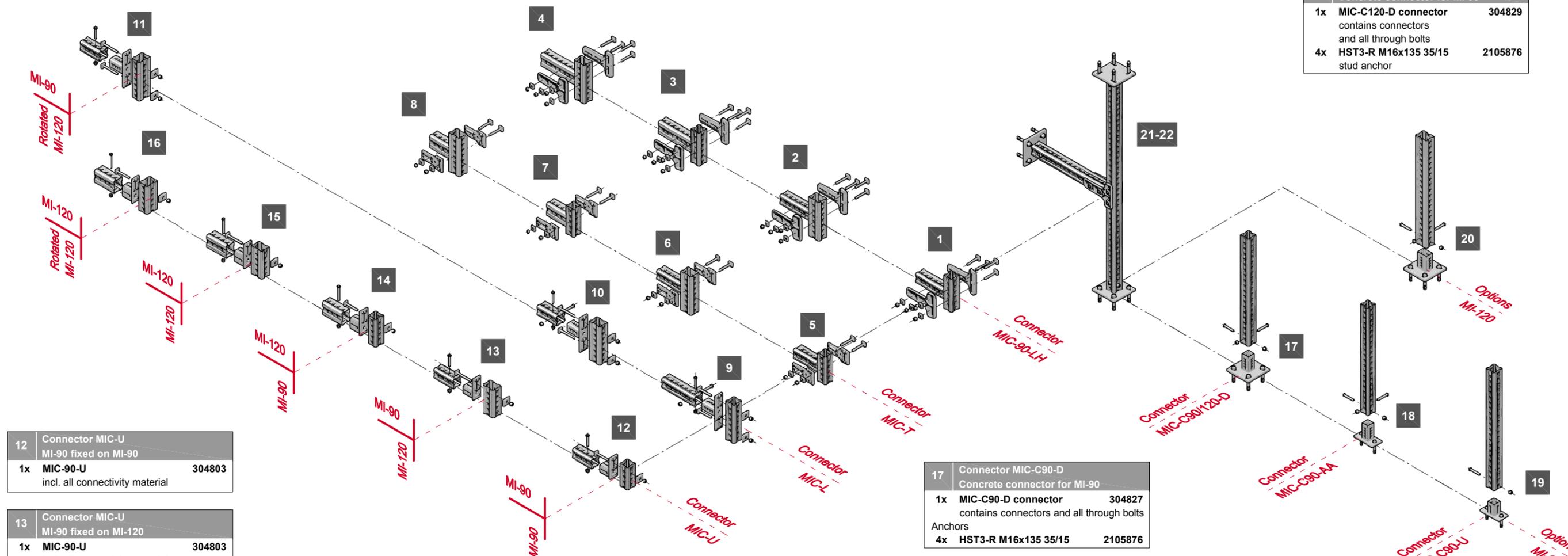
5	Connector MIC-T MI-90 fixed on MI-90	
6	Connector MIC-T MI-90 fixed on MI-120	
7	Connector MIC-T MI-120 fixed on MI-90	
8	Connector MIC-T MI-120 fixed on MI-120	
1x	MIC-T Incl. all connectivity material	304807

1	Connector MIC-90-LH MI-90 fixed on MI-90	
2	Connector MIC-90-LH MI-90 fixed on MI-120	
3	Connector MIC-90-LH MI-120 fixed on MI-90	
4	Connector MIC-90-LH MI-120 fixed on MI-120	
Angle does not include all connectivity material		
1x	MIC-90-LH	2048107
Connectivity material ordered separately		
4x	MIA-EH90 easy hand screw	304887
4x	MIA-TP serrated plate	305707
4x	M12-F-SL-WS 3/4" lock nut	382897

21	Girders MI-90	
	MI-90 3m girder	304798
	MI-90 6m girder	304799

22	Girders MI-120	
	MI-120 3m girder	304800
	MI-120 6m girder	304801

20	Connector MIC-120-D Concrete connector for MI-90	
1x	MIC-C120-D connector contains connectors and all through bolts	304829
4x	HST3-R M16x135 35/15 stud anchor	2105876



12	Connector MIC-U MI-90 fixed on MI-90	
1x	MIC-90-U incl. all connectivity material	304803

13	Connector MIC-U MI-90 fixed on MI-120	
1x	MIC-90-U incl. all connectivity material	304803
1x	MIA-EH120 easy screw the original MIA-EH 90 from the package will remain unused	304888

14	Connector MIC-U MI-120 fixed on MI-90	
16	Connector MIC-U MI-120 fixed on rotated MI-120	
1x	MIC-120-U incl. all connectivity material	304804

15	Connector MIC-U MI-120 fixed on MI-120	
1x	MIC-120-U incl. all connectivity material	304804
1x	MIA-EH120 easy screw the original MIA-EH 90 from the package will remain unused	304888

9	Connector MIC-L MI-90 fixed on MI-90	
11	Connector MIC-L MI-90 fixed on rotated MI-120	
1x	MIC-90-L incl. all connectivity material	304805

10	Connector MIC-L MI-90 fixed on MI-120	
1x	MIC-90-L incl. all connectivity material	304805
2x	MIA-EH120 easy screw the original MIA-EH 90 from the package will remain unused	304888

17	Connector MIC-C90-D Concrete connector for MI-90	
1x	MIC-C90-D connector contains connectors and all through bolts	304827
Anchors		
4x	HST3-R M16x135 35/15	2105876

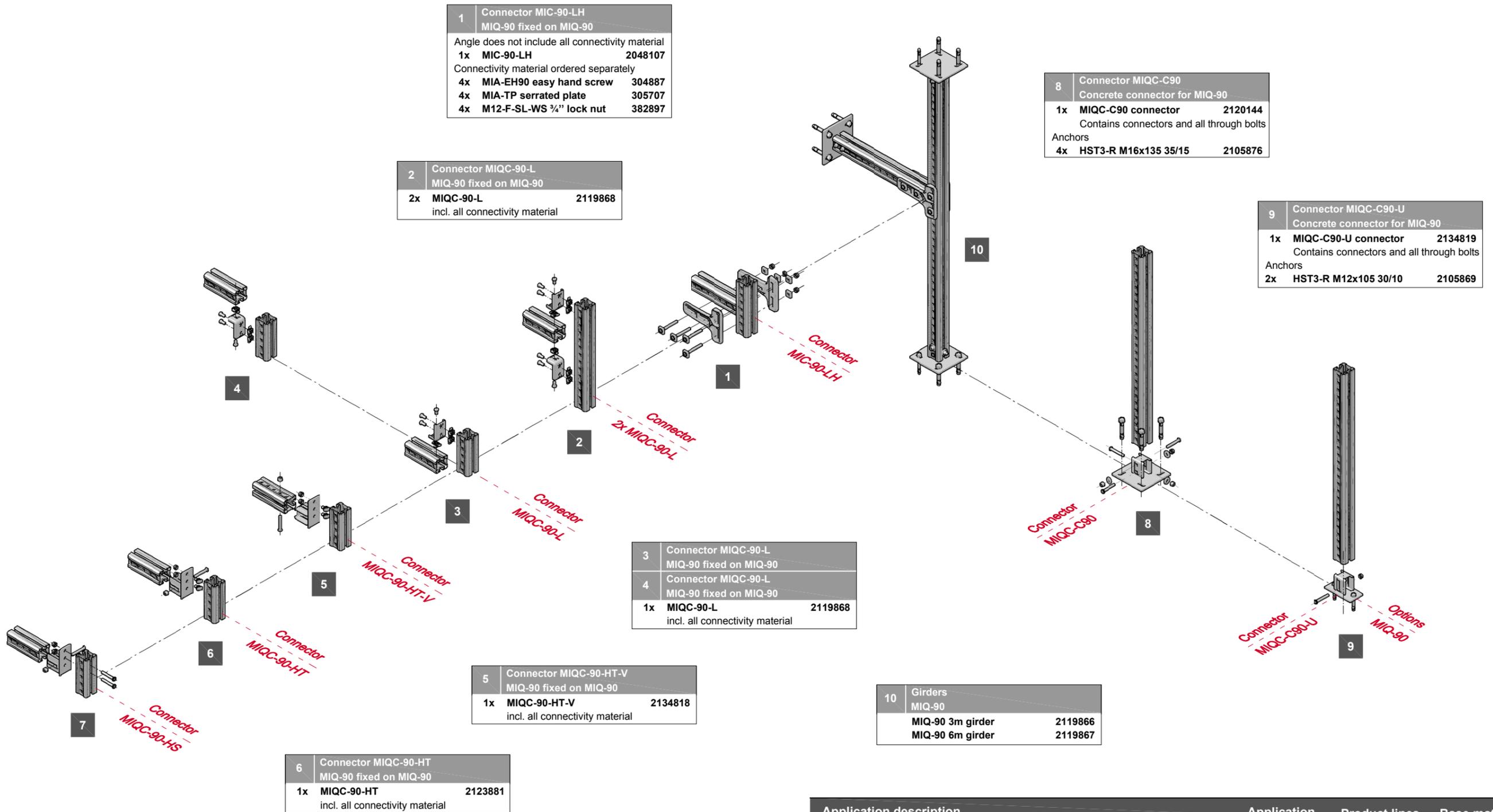
18	Connector MIC-C90-AA Concrete connector for MI-90	
1x	MIC-C90-AA connector contains connectors and all through bolts	304825
Anchors		
2x	HST3-R M12x115 40/20	2105870

19	Connector MIC-C90-AA Concrete connector for MI-90	
1x	MIC-C90-U connector contains connectors and all through bolts	304826
Anchors		
2x	HST3-R M12x105 30/10	2105869

Application description	Application	Product lines	Base material
MI System - Floor Ceiling Frame On Concrete		MI System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

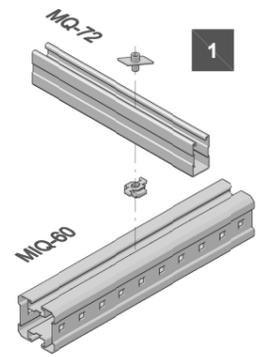
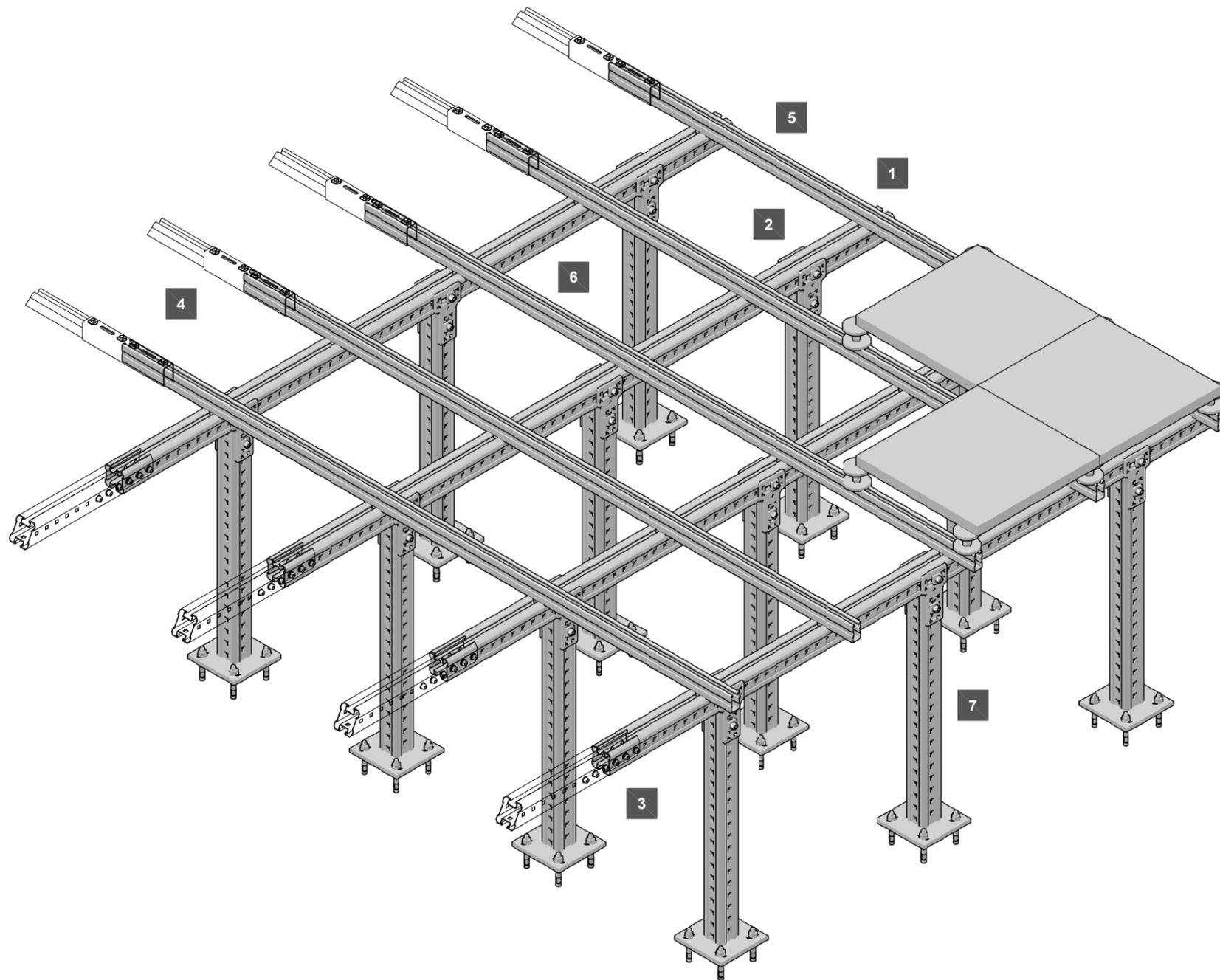
MIQ System - Floor Ceiling Frame On Concrete- Options



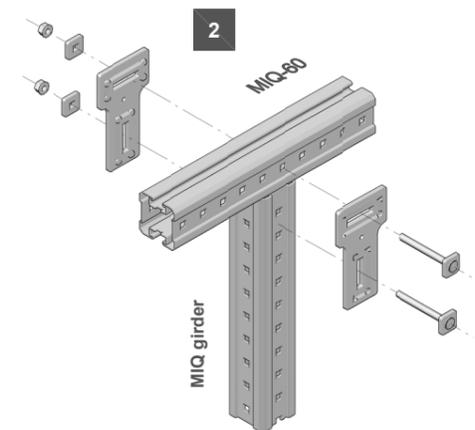
Application description	Application	Product lines	Base material
MIQ System - Floor Ceiling Frame On Concrete	13	MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ/MQ System - Raised Floor - Options



1	Crossing upper MQ-72 channel with lower MIQ-90 girder	
1x	MQZ-S-F screw	2063162
1x	MIQM-M12 wingnut	2120275



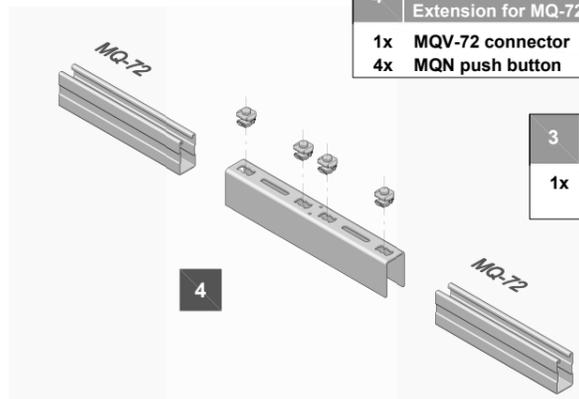
2	Connector MIC-T MIQ-90 fixed on bracket MIC-C90	
1x	MIC-T	304807
		Incl. all connectivity material

7	Brackets MIC-C90-D for concrete	
Bracket (Cantilever arm)		
1x	MIC-C90-D-500	267789
	MIC-C90-D-750	267790
	MIC-C90-D-1000	267791
	MIC-C90-D-1500	267792
	MIC-C90-D-2000	267793
Anchors		
4x	HST3-R M16x135 35/15	2105876

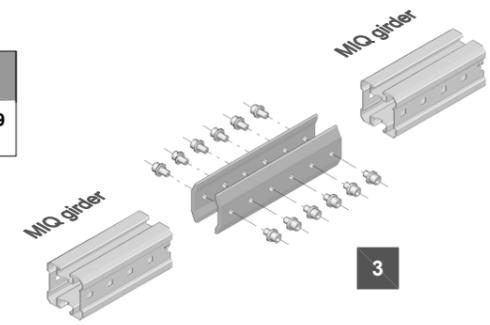
5	Channels	
MQ-72		
	MQ-72 3m channel	373797
	MQ-72 6m channel	369599

6	Girders	
MIQ-90		
	MIQ-90 3m girder	2119866
	MIQ-90 6m girder	2119867

4	Connector MQV-72 Extension for MQ-72	
1x	MQV-72 connector	286102
4x	MQN push button	369623



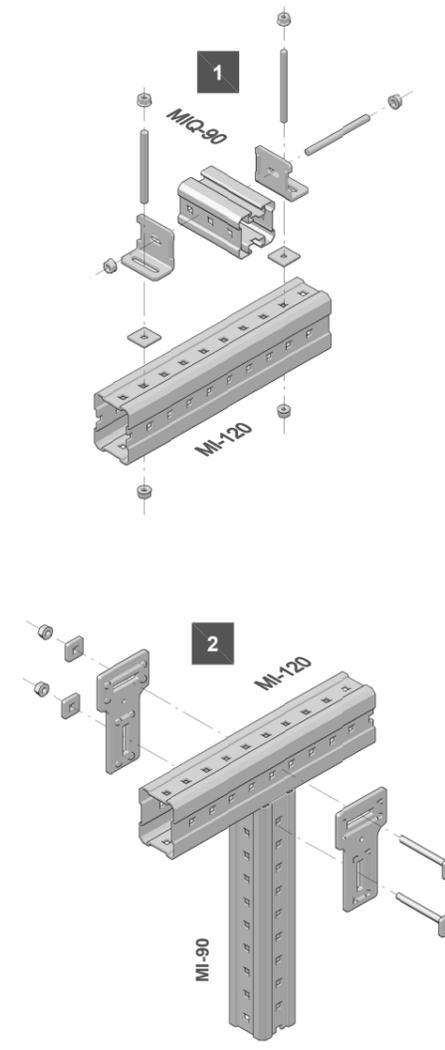
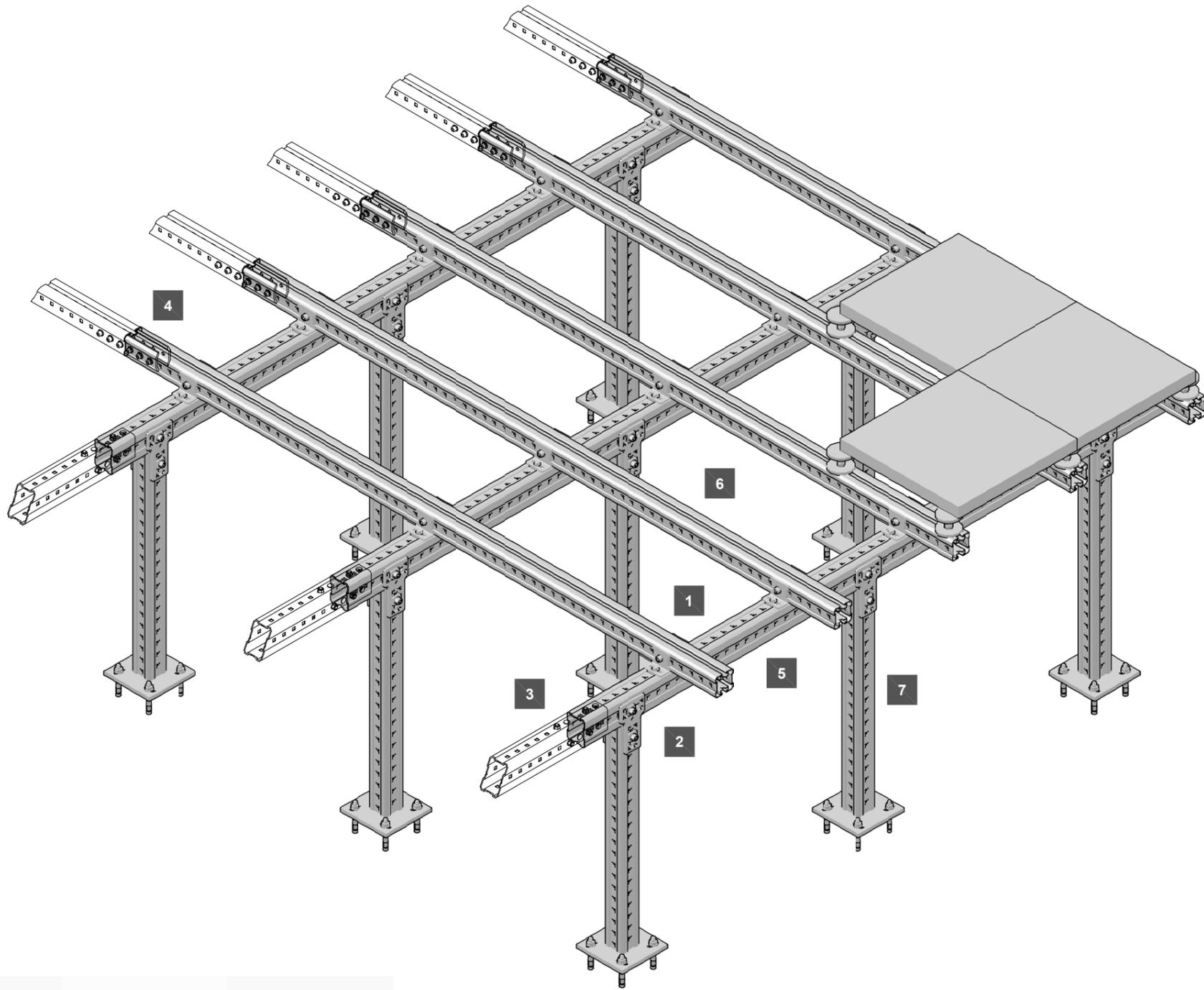
3	Connector MIQC-E Extension for MIQ-90	
1x	MIQC-E connector	2140259
		Incl. all connectivity material



Application description	Application	Product lines	Base material
MIQ/MQ System - Raised Floor On Concrete	14	MI/MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Raised Floor - Options



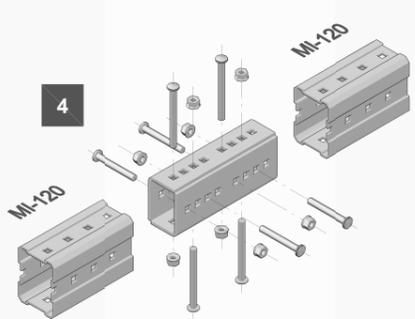
1	Crossing upper MIQ-90 girder with lower MI-120 girder
Angles	
1x	MIC-UB 90-M12 U-bolt conn. 304831 Sell in pair. Incl. connectivity material. Two screws will remain unused.
Other parts	
1x	AM12x1000-F 4.8 th. rod 304774 AM12x2000-F 4.8 th. rod 304775 3x piece of 150 mm length th. rod
4x	M12-F-SL WS 3/4 lock nut 382897

2	Connector MIC-T MI-120 fixed on bracket MIC-C90
1x	MIC-T 304807 Incl. all connectivity material

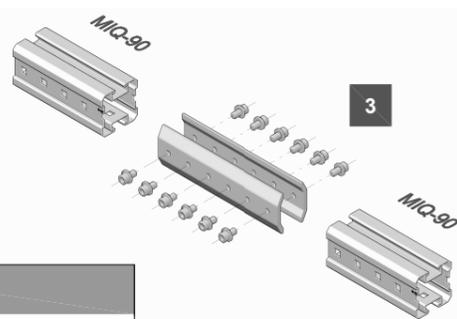
7	Brackets MIC-C90-D for concrete
Bracket (Cantilever arm)	
1x	MIC-C90-D-500 267789 MIC-C90-D-750 267790 MIC-C90-D-1000 267791 MIC-C90-D-1500 267792 MIC-C90-D-2000 267793
Anchors	
4x	HST3-R M16x135 35/15 2105876

5	Girders
MI-120	
	MI-120 3m girder 304800
	MI-120 6m girder 304801

6	Girders
MIQ-90	
	MIQ-90 3m girder 2119866
	MIQ-90 6m girder 2119867



4	Connector MIC-120-E Extension for MI-120
1x	MIC-120-E connector 304810 Incl. all connectivity material



3	Connector MIQC-E Extension for MIQ-90
1x	MIQC-E connector 2140259 Incl. all connectivity material

Application description

MI/MIQ System - Raised Floor On Concrete

General comments

- These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations

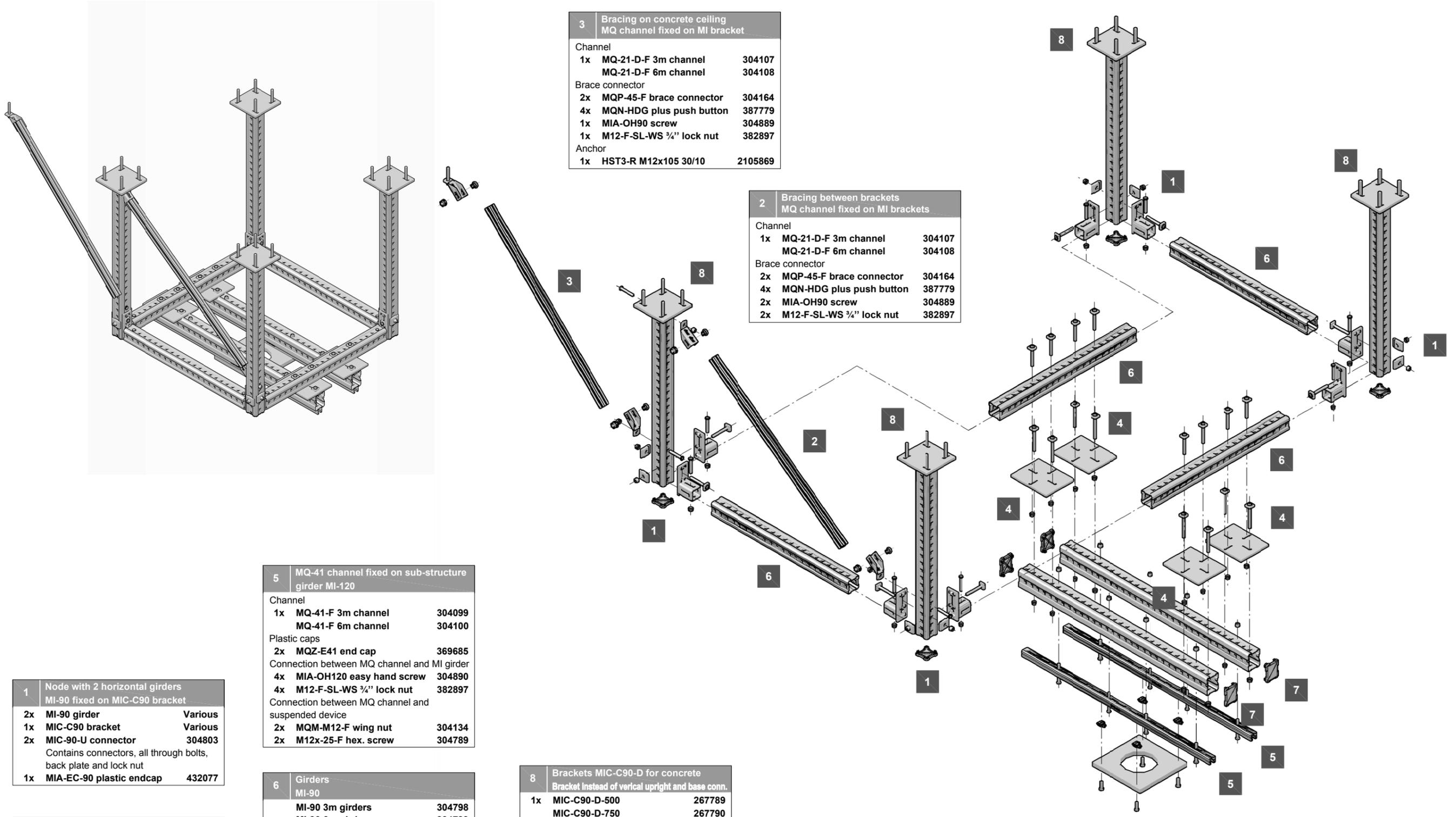
Application



Application	Product lines	Base material
14	MI/MIQ System	Concrete
	Anchors	
	Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Overhead Grid On Concrete - Options



3 Bracing on concrete ceiling MQ channel fixed on MI bracket		
Channel		
1x MQ-21-D-F 3m channel		304107
MQ-21-D-F 6m channel		304108
Brace connector		
2x MQP-45-F brace connector		304164
4x MQN-HDG plus push button		387779
1x MIA-OH90 screw		304889
1x M12-F-SL-WS 3/4" lock nut		382897
Anchor		
1x HST3-R M12x105 30/10		2105869

2 Bracing between brackets MQ channel fixed on MI brackets		
Channel		
1x MQ-21-D-F 3m channel		304107
MQ-21-D-F 6m channel		304108
Brace connector		
2x MQP-45-F brace connector		304164
4x MQN-HDG plus push button		387779
2x MIA-OH90 screw		304889
2x M12-F-SL-WS 3/4" lock nut		382897

5 MQ-41 channel fixed on sub-structure girder MI-120		
Channel		
1x MQ-41-F 3m channel		304099
MQ-41-F 6m channel		304100
Plastic caps		
2x MQZ-E41 end cap		369685
Connection between MQ channel and MI girder		
4x MIA-OH120 easy hand screw		304890
4x M12-F-SL-WS 3/4" lock nut		382897
Connection between MQ channel and suspended device		
2x MQM-M12-F wing nut		304134
2x M12x-25-F hex. screw		304789

6 Girders MI-90		
MI-90 3m girders		304798
MI-90 6m girders		304799

7 Girder MI-120 and plastic caps		
Girder		
1x MI-120 3m girders		304800
MI-120 6m girders		304801
Plastic caps		
2x MIA-EC-120 plastic endcap		432078

1 Node with 2 horizontal girders MI-90 fixed on MIC-C90 bracket		
2x MI-90 girder		Various
1x MIC-C90 bracket		Various
2x MIC-90-U connector		304803
Contains connectors, all through bolts, back plate and lock nut		
1x MIA-EC-90 plastic endcap		432077

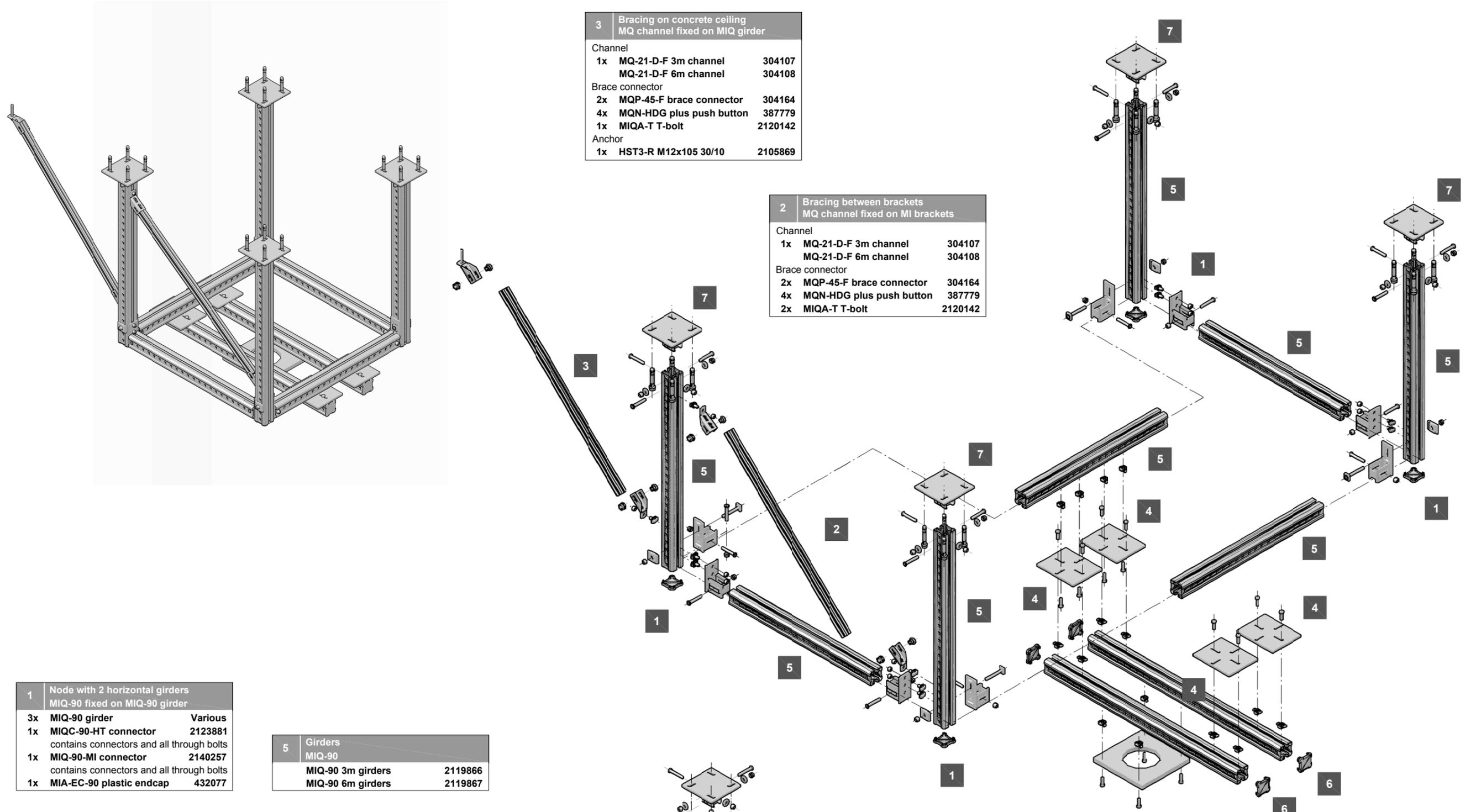
4 Connection between primary 3D cube and sub-structure girder MI-120		
Screws and nuts on primary 3D cube		
2x MIA-EH90 easy hand screw		304887
2x M12-F-SL-WS 3/4" lock nut		382897
Base plate		
1x XXX base plate		xxxxx
Screws and nuts on primary 3D cube		
2x MIA-EH120 easy hand screw		304888
2x M12-F-SL-WS 3/4" lock nut		382897

8 Brackets MIC-C90-D for concrete Bracket instead of vertical upright and base conn.		
1x MIC-C90-D-500		267789
MIC-C90-D-750		267790
MIC-C90-D-1000		267791
MIC-C90-D-1500		267792
MIC-C90-D-2000		267793
Anchors		
4x HST3-R M16x135 35/15		2105876

Application description	Application	Product lines	Base material
MI System - Overhead Grid On Concrete	 15	MI System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Overhead Grid On Concrete - Options



3 Bracing on concrete ceiling MQ channel fixed on MIQ girder		
Channel		
1x MQ-21-D-F 3m channel	304107	
MQ-21-D-F 6m channel	304108	
Brace connector		
2x MQP-45-F brace connector	304164	
4x MQN-HDG plus push button	387779	
1x MIQA-T T-bolt	2120142	
Anchor		
1x HST3-R M12x105 30/10	2105869	

2 Bracing between brackets MQ channel fixed on MI brackets		
Channel		
1x MQ-21-D-F 3m channel	304107	
MQ-21-D-F 6m channel	304108	
Brace connector		
2x MQP-45-F brace connector	304164	
4x MQN-HDG plus push button	387779	
2x MIQA-T T-bolt	2120142	

1 Node with 2 horizontal girders MIQ-90 fixed on MIQ-90 girder		
3x MIQ-90 girder	Various	
1x MIQC-90-HT connector	2123881	contains connectors and all through bolts
1x MIQ-90-MI connector	2140257	contains connectors and all through bolts
1x MIA-EC-90 plastic endcap	432077	

5 Girders MIQ-90		
MIQ-90 3m girders	2119866	
MIQ-90 6m girders	2119867	

4 Connection between primary 3D cube and sub-structure girder MIQ-90		
Screws and nuts for connection to primary 3D cube		
2x MIQM-M12 wing nut	2120275	
2x M12x30-F hex screw	xxxxx	
Base plate		
1x XXX base plate	xxxxx	
Screws and nuts for sub-structure MIQ girder		
2x MIQM-M12 wing nut	2120275	
2x M12x30-F hex screw	xxxxx	

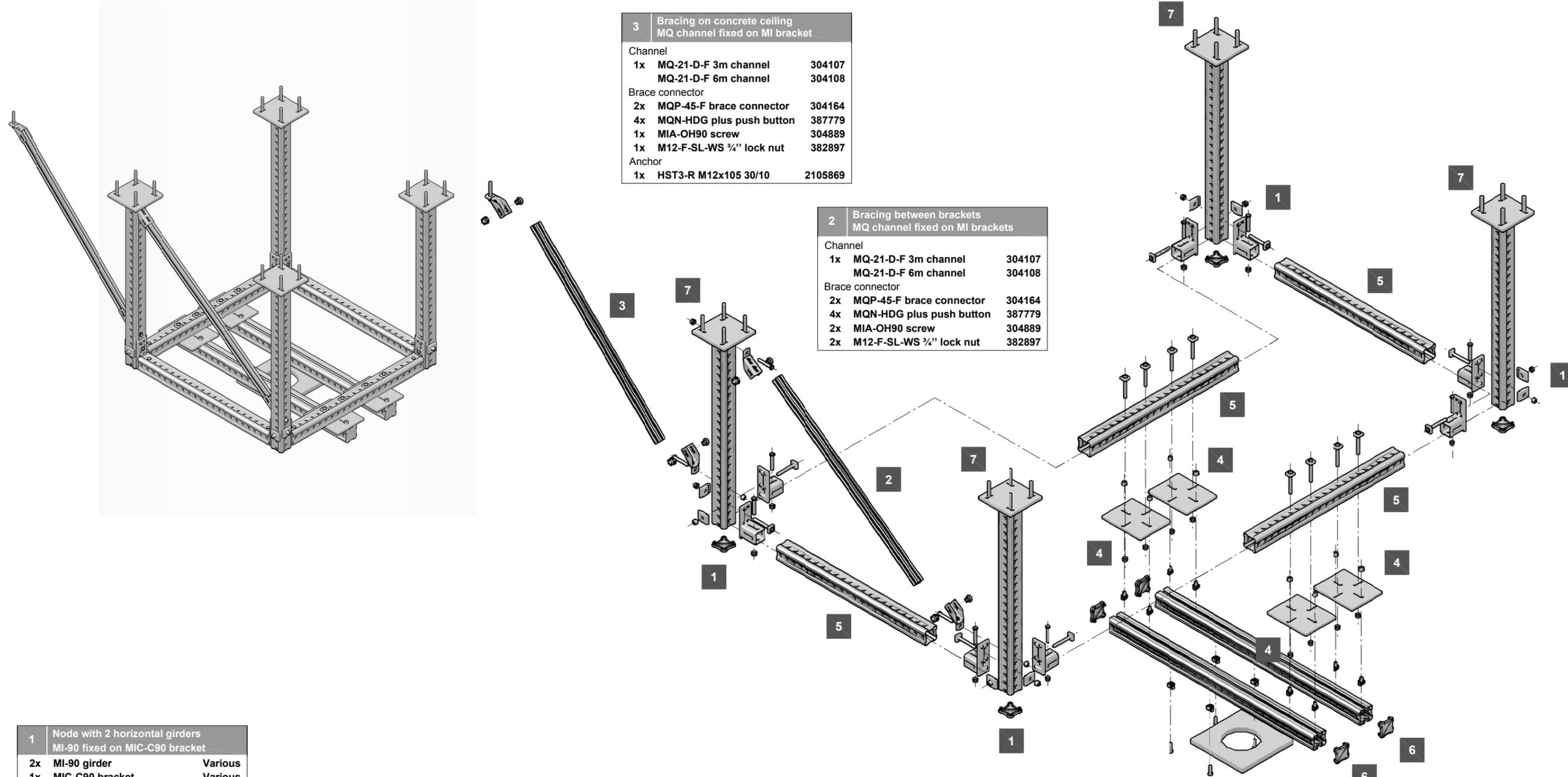
6 Girders MIQ-90 for supporting device		
Girder		
1x MIQ-90 3m girders	2119866	
MIQ-90 6m girders	2119767	
Plastic caps		
2x MIA-EC-90 plastic endcap	432077	
Connection between MIQ girder and supporting device		
2x MIQM-M12 wing nut	2120275	
2x M12x-25-F hex. screw	304789	

7 Connector MIQC-C90 Concrete connector for MIQ-90		
1x MIQC-C90 connector	2120144	Contains connector and all through bolts
Anchors		
4x HST3-R M16x135 35/15	2105876	

Application description	Application	Product lines	Base material
MIQ System - Overhead Grid On Concrete	 15	MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Overhead Grid On Concrete - Options



3 Bracing on concrete ceiling MQ channel fixed on MI bracket		
Channel		
1x MQ-21-D-F 3m channel		304107
MQ-21-D-F 6m channel		304108
Brace connector		
2x MQP-45-F brace connector		304164
4x MQN-HDG plus push button		387779
1x MIA-OH90 screw		304889
1x M12-F-SL-WS 3/4" lock nut		382897
Anchor		
1x HST3-R M12x105 30/10		2105869

2 Bracing between brackets MQ channel fixed on MI brackets		
Channel		
1x MQ-21-D-F 3m channel		304107
MQ-21-D-F 6m channel		304108
Brace connector		
2x MQP-45-F brace connector		304164
4x MQN-HDG plus push button		387779
2x MIA-OH90 screw		304889
2x M12-F-SL-WS 3/4" lock nut		382897

1 Node with 2 horizontal girders MI-90 fixed on MIC-C90 bracket		
2x MI-90 girder		Various
1x MIC-C90 bracket		Various
2x MIC-90-U connector		304803
Contains connectors, all through bolts, back plate and lock nut		
1x MIA-EC-90 plastic endcap		432077

5 Girders MI-90		
MI-90 3m girders		304798
MI-90 6m girders		304799

4 Connection between primary 3D cube and sub-structure girder MI-120		
Screws and nuts for connection primary 3D cube		
2x MIA-EH90 easy hand screw		304887
2x M12-F-SL-WS 3/4" lock nut		382897
Base plate		
1x XXX base plate		xxxxx
Screws and nuts for sub-structure MIQ girder		
2x MIQA-T T-bolt		2120142
2x M12-F-SL-WS 3/4" lock nut		382897

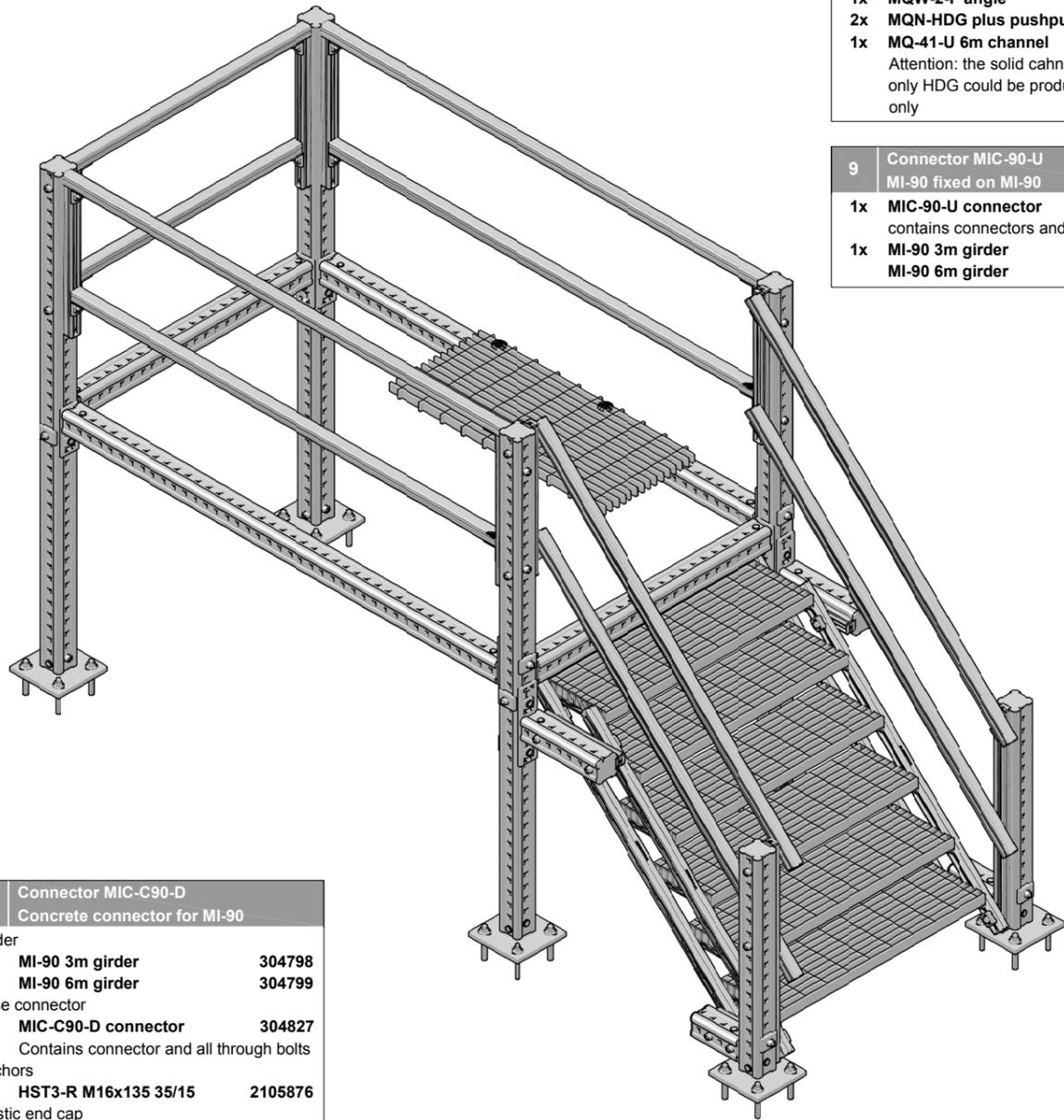
6 Girders MIQ-90 for supporting device		
Girder		
1x MIQ-90 3m girders		2119866
MIQ-90 6m girders		2119767
Plastic caps		
2x MIA-EC-90 plastic endcap		432077
Connection between MIQ girder and supporting device		
2x MIQM-M12 wing nut		2120275
2x M12x-25-F hex. screw		304789

Brackets MIC-C90/120-D for concrete Bracket instead of vertical upright and base conn.		
1x MIC-C90-D-500		267789
MIC-C90-D-750		267790
MIC-C90-D-1000		267791
MIC-C90-D-1500		267792
MIC-C90-D-2000		267793
MIC-C120-D-500		270468
MIC-C120-D-750		270469
MIC-C120-D-1000		270470
MIC-C120-D-1500		270471
MIC-C120-D-2000		270472
Anchors		
4x HST3-R M16x135 35/15		2105876

Application description	Application	Product lines	Base material
MI/MIQ System - Overhead Grid On Concrete	 15	MI/MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Platform On Concrete - Options



1 Connector MIC-C90-D Concrete connector for MI-90	
Girder	
1x MI-90 3m girder	304798
MI-90 6m girder	304799
Base connector	
1x MIC-C90-D connector	304827
Contains connector and all through bolts	
Anchors	
4x HST3-R M16x135 35/15	2105876
Plastic end cap	
1x MIA-EC-90 plastic endcap	432077
MQ attachment beam for handrail	
1x MQ-41-F 3m channel	304099
MQ-41-F 6m channel	304100
2x MIA-OH90 screw	304890
2x MQZ-E41 plastic endcap	369685

2 Bottom bracket MI-90 for sloping MQ channels	
Girder	
1x MI-90 3m girder	304798
MI-90 6m girder	304799
Base connector	
1x MIC-90-U connector	304803
Contains connector and all through bolts	
Plastic end cap	
1x MIA-EC-90 plastic endcap	432077
MQ attachment beam for handrail	
1x MQ-41-F 3m channel	304099
MQ-41-F 6m channel	304100
2x MIA-OH90 screw	304890
2x MQZ-E41 plastic endcap	369685

3 Connecting handrail to vertical MQ attachment on MI columns	
2x MQM-M12-F wing nut	304140
2x M12x25-F hex.head screw	304789
1x MF-FL 10 angle	406377
2x A13/24-F washer	304771
1x MQ-41-U 6m channel	369595
Attention: the solid channel is galvanized only HDG could be produced as specials only	

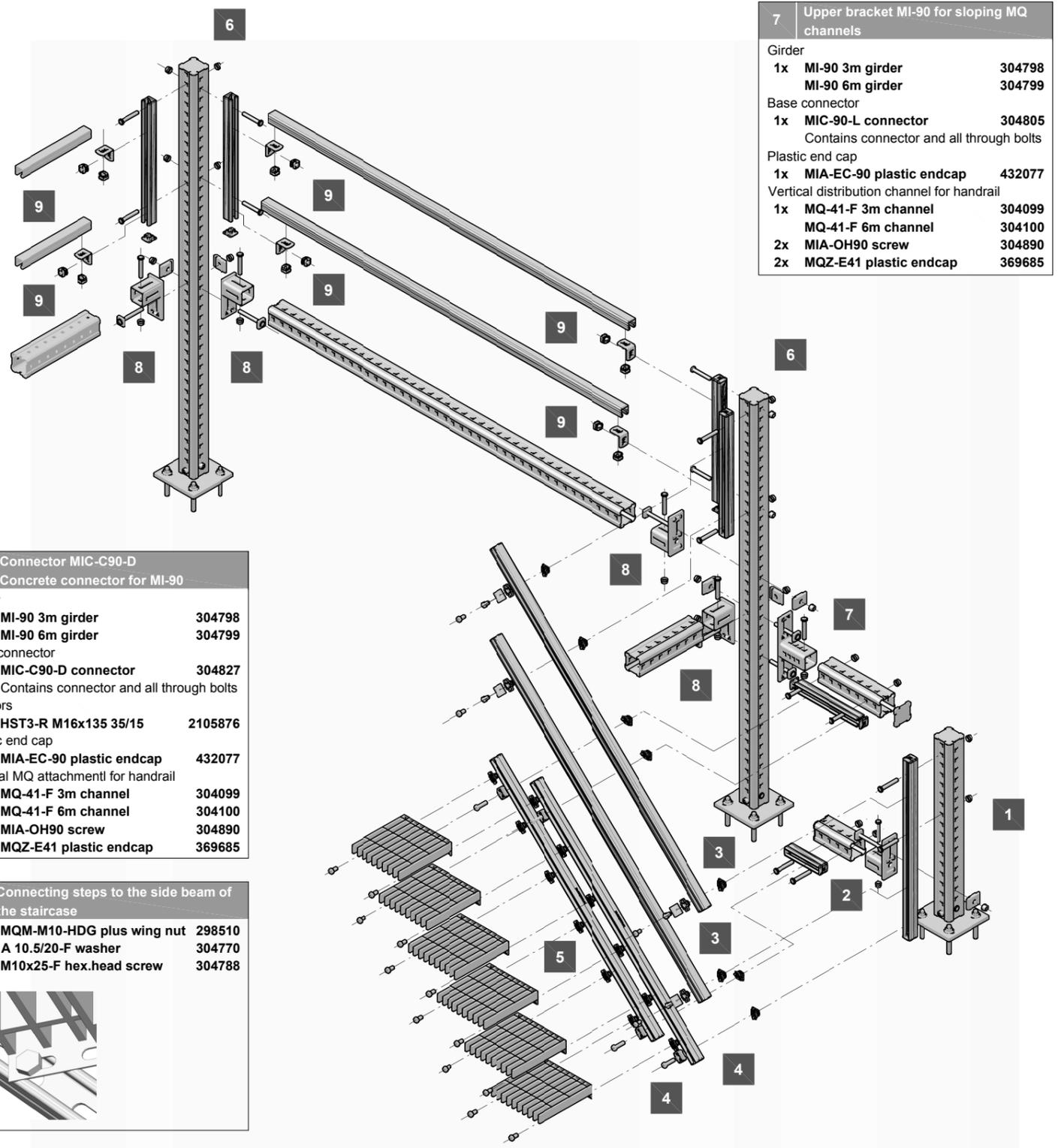
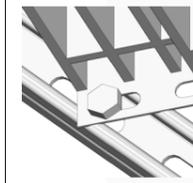
4 Connecting side beam of the staircase to MI columns	
2x M12x50-F hex. screw connection screw	Specials
1x MQ-41-F 3m channel	304099
MQ-41-F 6m channel	304100
2x MQM-M12-F wing nut	304140
2x MQZ-E41 plastic end cap	369685

8 Connector MQW-2-F Connection handrail and attachment	
1x MQW-2-F angle	304171
2x MQN-HDG plus pushputton	387779
1x MQ-41-U 6m channel	369595
Attention: the solid channel is galvanized only HDG could be produced as specials only	

9 Connector MIC-90-U MI-90 fixed on MI-90	
1x MIC-90-U connector	304803
contains connectors and all through bolts	
1x MI-90 3m girder	304798
MI-90 6m girder	304799

6 Connector MIC-C90-D Concrete connector for MI-90	
Girder	
1x MI-90 3m girder	304798
MI-90 6m girder	304799
Base connector	
1x MIC-C90-D connector	304827
Contains connector and all through bolts	
Anchors	
4x HST3-R M16x135 35/15	2105876
Plastic end cap	
1x MIA-EC-90 plastic endcap	432077
Vertical MQ attachment for handrail	
2x MQ-41-F 3m channel	304099
MQ-41-F 6m channel	304100
4x MIA-OH90 screw	304890
4x MQZ-E41 plastic endcap	369685

5 Connecting steps to the side beam of the staircase	
1x MQM-M10-HDG plus wing nut	298510
1x A 10.5/20-F washer	304770
1x M10x25-F hex.head screw	304788

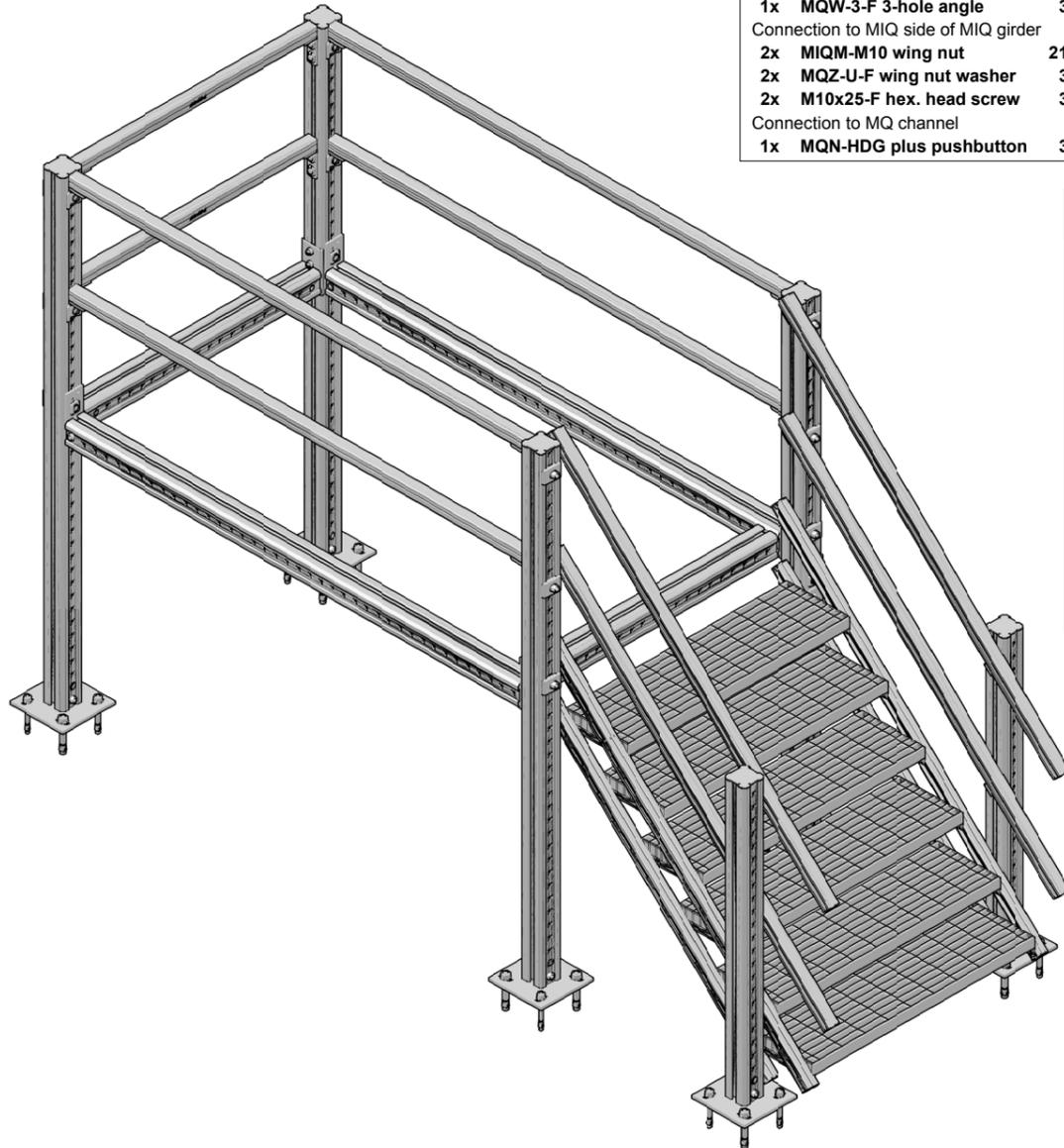


7 Upper bracket MI-90 for sloping MQ channels	
Girder	
1x MI-90 3m girder	304798
MI-90 6m girder	304799
Base connector	
1x MIC-90-L connector	304805
Contains connector and all through bolts	
Plastic end cap	
1x MIA-EC-90 plastic endcap	432077
Vertical distribution channel for handrail	
1x MQ-41-F 3m channel	304099
MQ-41-F 6m channel	304100
2x MIA-OH90 screw	304890
2x MQZ-E41 plastic endcap	369685

Application description	Application	Product lines	Base material
MI System - Platform On Concrete	16	MI System	Concrete
General comments		MQ System	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Platform On Concrete - Options



9	Connecting Handrail to MIQ side of MIQ column
Connector	
1x MQW-3-F 3-hole angle	304172
Connection to MIQ side of MIQ girder	
2x MIQM-M10 wing nut	2120275
2x MQZ-U-F wing nut washer	304208
2x M10x25-F hex. head screw	304788
Connection to MQ channel	
1x MQN-HDG plus pushbutton	387779

8	Connector MIQC-90-HT MIQ-90 fixed on MIQ-90
1x MIQC-90-HT connector	2123881
contains connectors and all through bolts	

7	Connecting Handrail to MI side of MIQ column
Connector	
1x MC-MI-AH-90 OC-a angle	2063283
Connection to MI side of MIQ girder	
1x MIA-EH90 through bolt	304887
1x MIA-EH-P backing plate	304891
1x M12-F-SL-WS 3/4" lock nut	382897
Connection to MQ channel	
1x MQM-M10-HDG plus wing nut	298510
1x M10x25-F hex.head screw	304788

6	Connector MIQC-90-MI MIQ-90 fixed on MIQ-90
1x MIQC-90-MI connector	2140257
contains connectors and all through bolts	

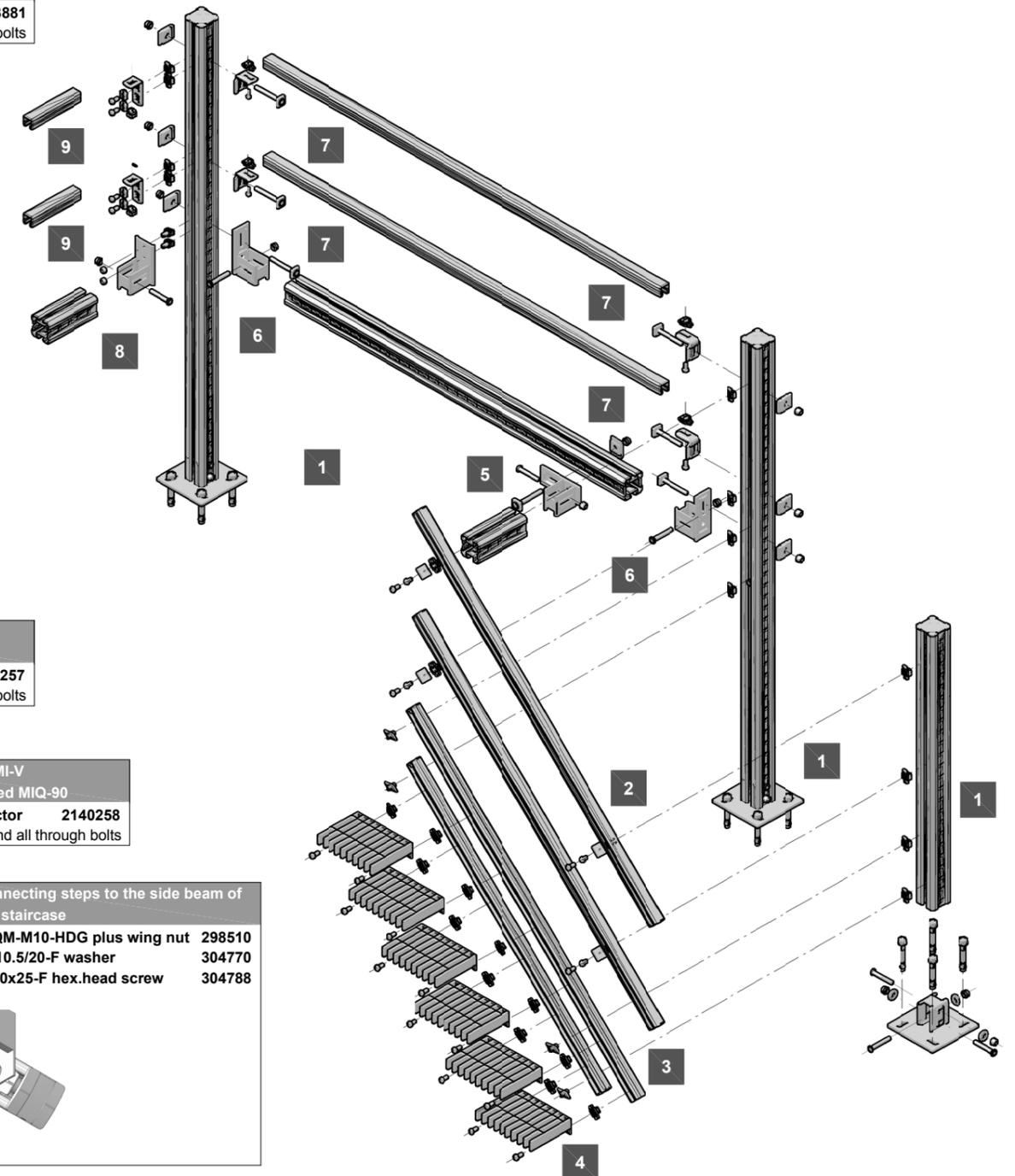
5	Connector MIQC-90-MI-V MIQ-90 fixed on rotated MIQ-90
1x MIQC-90-MI-V connector	2140258
contains connectors and all through bolts	

4	Connecting steps to the side beam of the staircase
1x MQM-M10-HDG plus wing nut	298510
1x A 10.5/20-F washer	304770
1x M10x25-F hex.head screw	304788

2	Connecting handrail to open section of MIQ columns
1x MIQM-M12 wing nut	2120275
2x M12x25 hex.head screw	304789
1x MF-FL 10 angle	406377
2x A13/24-F washer	304771
1x MQ-41-U 6m channel	369595
Attention: the solid channel is galvanized only HDG could be produced as specials only	
1x MQM-M12 wing nut	369627

3	Connecting side beam of the staircase to open s. of MIQ column
1x MQZ-S-F screw connection screw	2063162
1x MQ-41-F 3m channel	304099
1x MIQM-M12 wing nut	2120275
1x MQZ-E41 plastic end cap	369685

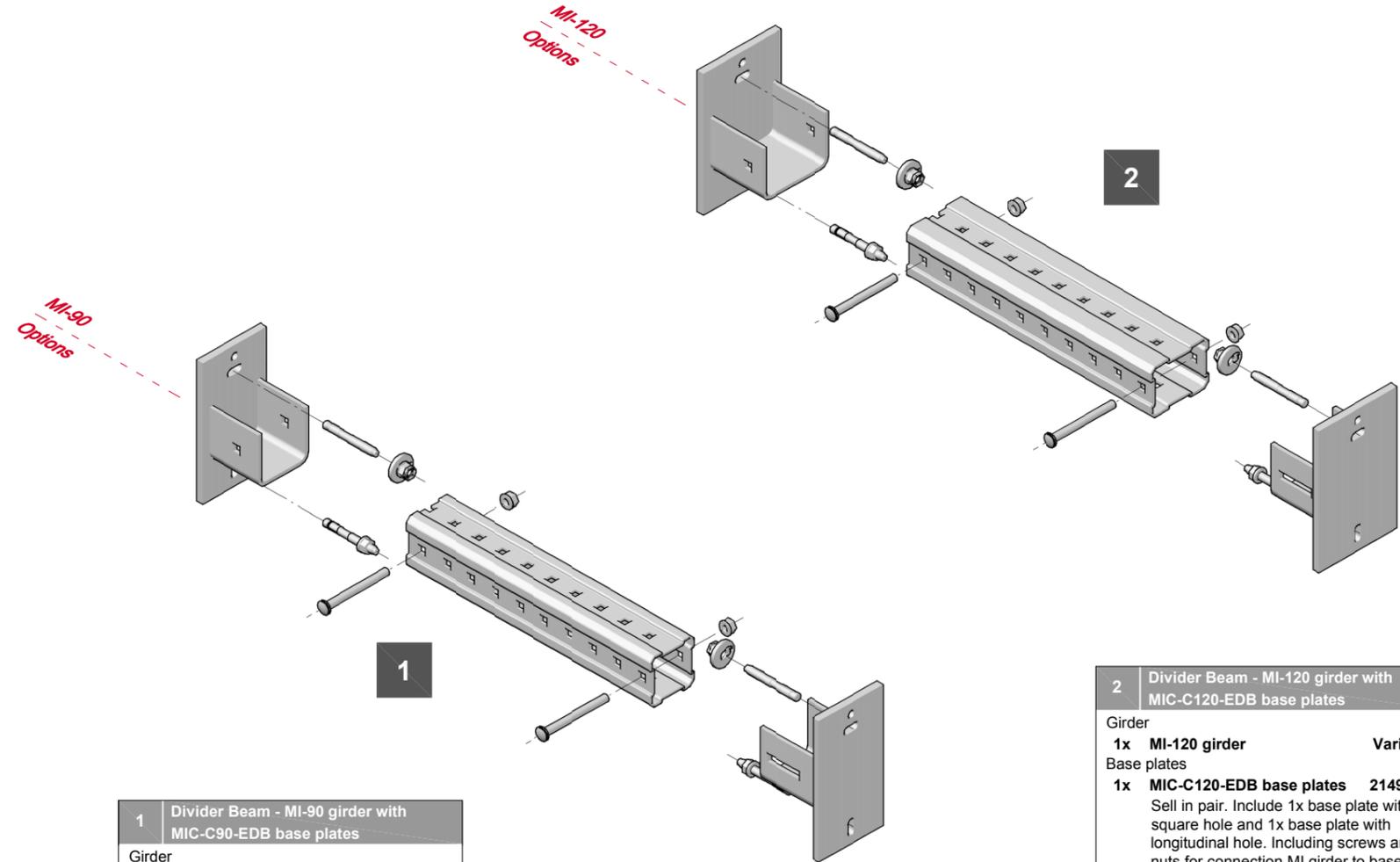
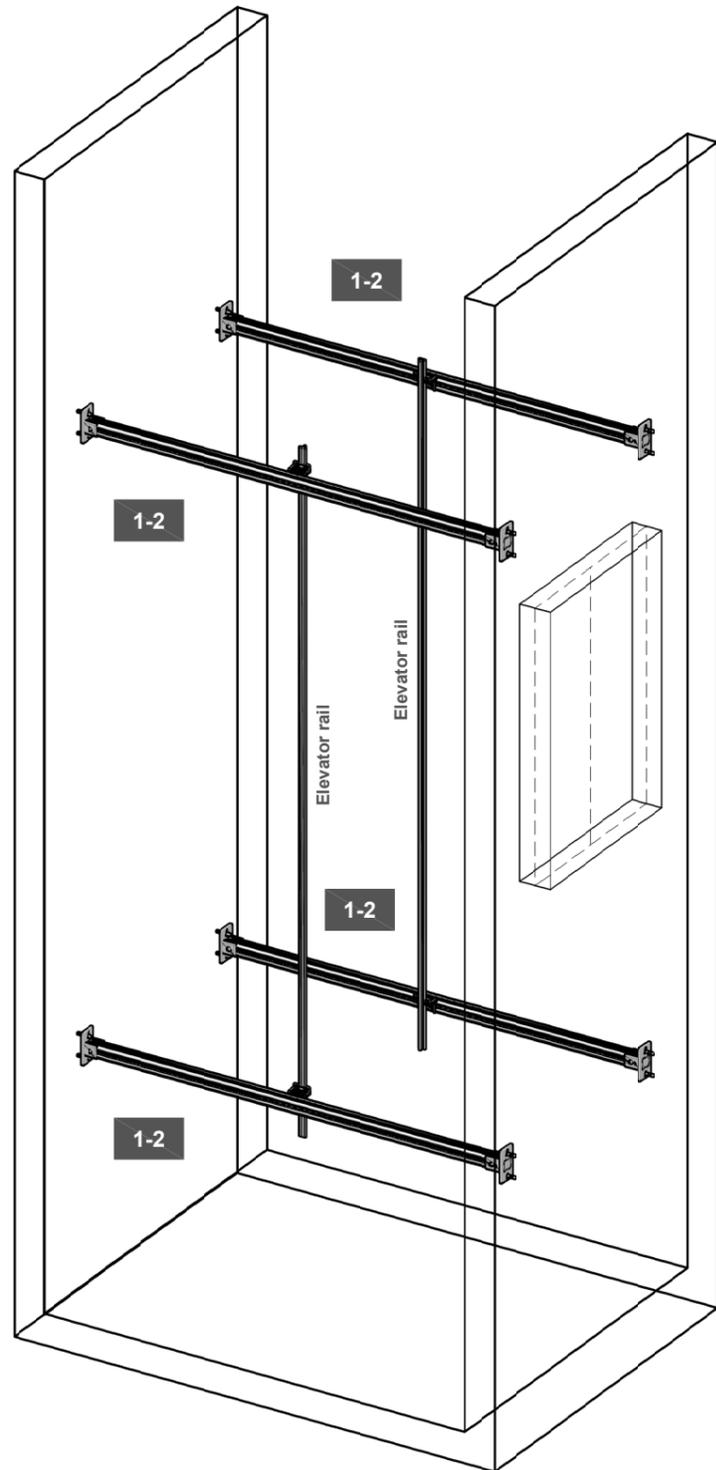
1	Connector MIQC-C90 Concrete connector for MIQ-90
Girder	
1x MIQ-90 3m girder	2119866
1x MIQ-90 6m girder	2119867
Base connector	
1x MIQC-C90 connector	2120144
Contains connector and all through bolts	
Anchors	
4x HST3-R M16x135 35/15	2105876
Plastic end cap	
1x MIA-EC-90 plastic endcap	432077



Application description	Application	Product lines	Base material
MIQ System - Platform On Concrete	16	MIQ System	Concrete
General comments		MQ System	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Elevator - Divider Beam - Options



1 Divider Beam - MI-90 girder with MIC-C90-EDB base plates	
Girder	
1x MI-90 girder	Various
Base plates	
1x MIC-C90-EDB base plates	2149279
Sell in pair. Include 1x base plate with square hole and 1x base plate with longitudinal hole. Including screws and nuts for connection MIQ girder to base plates.	
Connection to concrete walls	
4x HST3 M12x115 40/20	2105719
Galvanized anchors - supposed indoor application	
2x Seismic set M12	2127789
Seismic set have to be used with upper anchors. Seismic set is filled hybrid adhesive mortar HIT-HY 200 (HIT-HY 200-A 330ml 2022791)	

Girders	
MI-90	
MI-90 3m girder	304798
MI-90 6m girder	304799

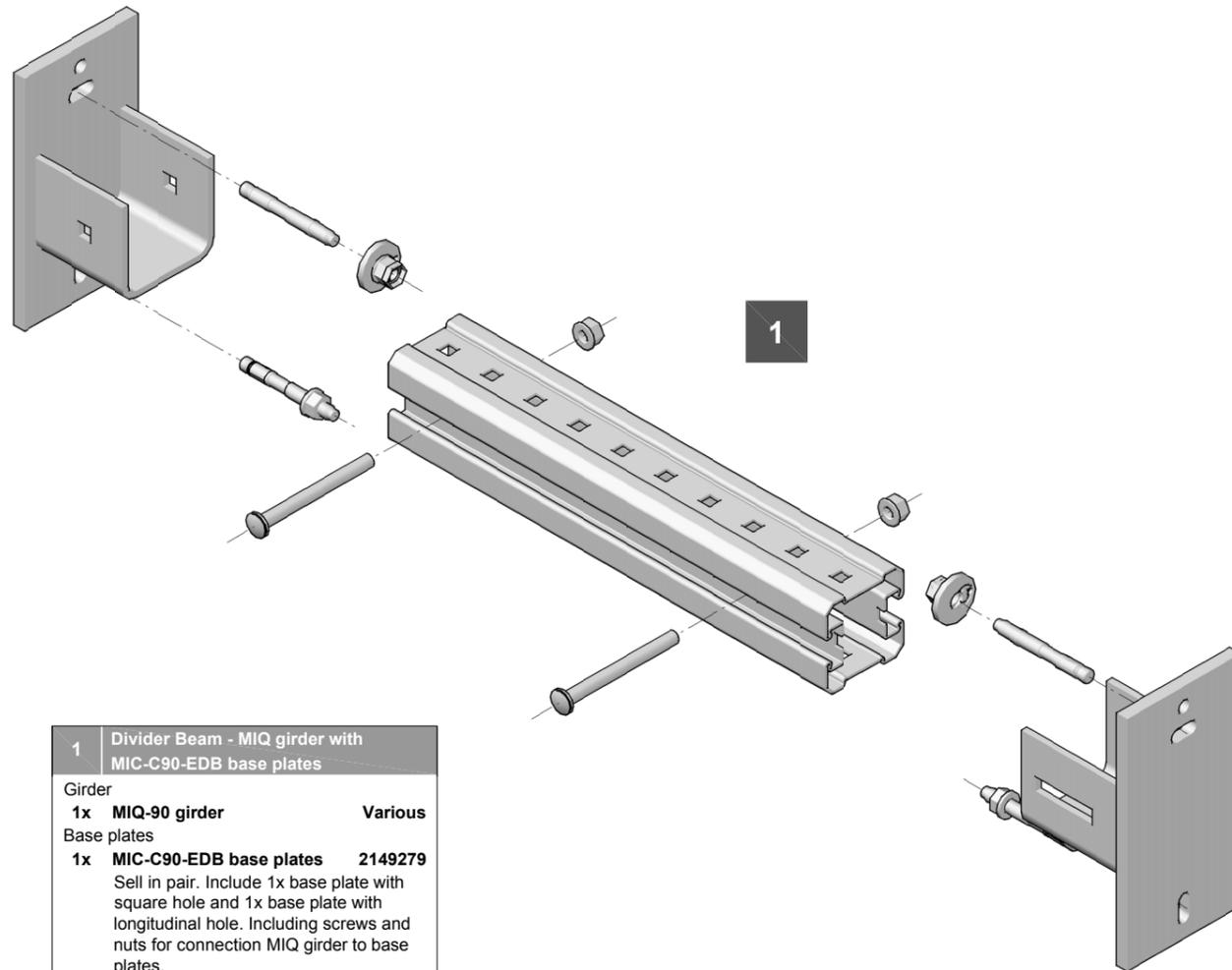
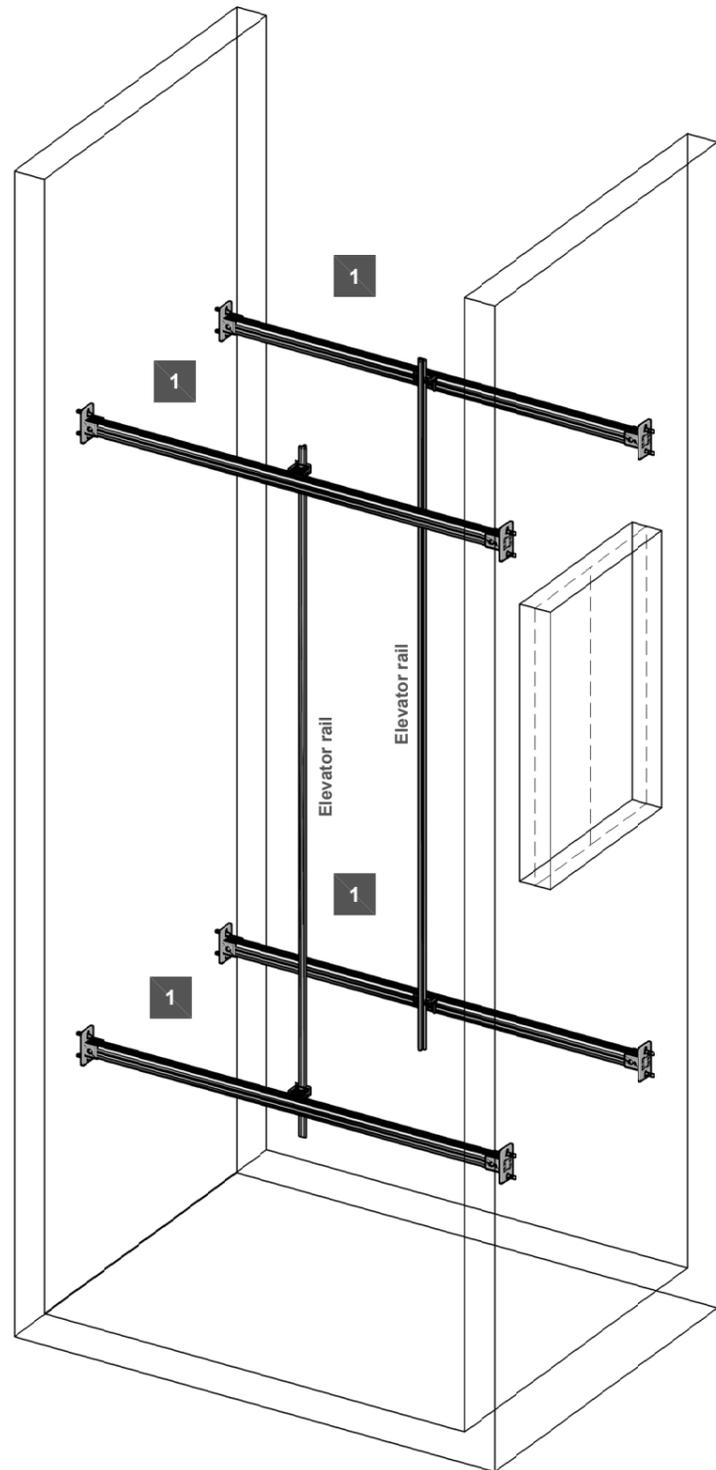
Girders	
MI-120	
MI-120 3m girder	304800
MI-120 6m girder	304801

2 Divider Beam - MI-120 girder with MIC-C120-EDB base plates	
Girder	
1x MI-120 girder	Various
Base plates	
1x MIC-C120-EDB base plates	2149420
Sell in pair. Include 1x base plate with square hole and 1x base plate with longitudinal hole. Including screws and nuts for connection MI girder to base plates.	
Connection to concrete walls	
4x HST3 M12x115 40/20	2105719
Galvanized anchors - supposed indoor application	
2x Seismic set M12	2127789
Seismic set have to be used with upper anchors. Seismic set is filled hybrid adhesive mortar HIT-HY 200 (HIT-HY 200-A 330ml 2022791)	

Application description	Application	Product lines	Base material
MI System - Elevator - Divider Beam		MI System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

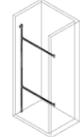
Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Elevator - Divider Beam - Options



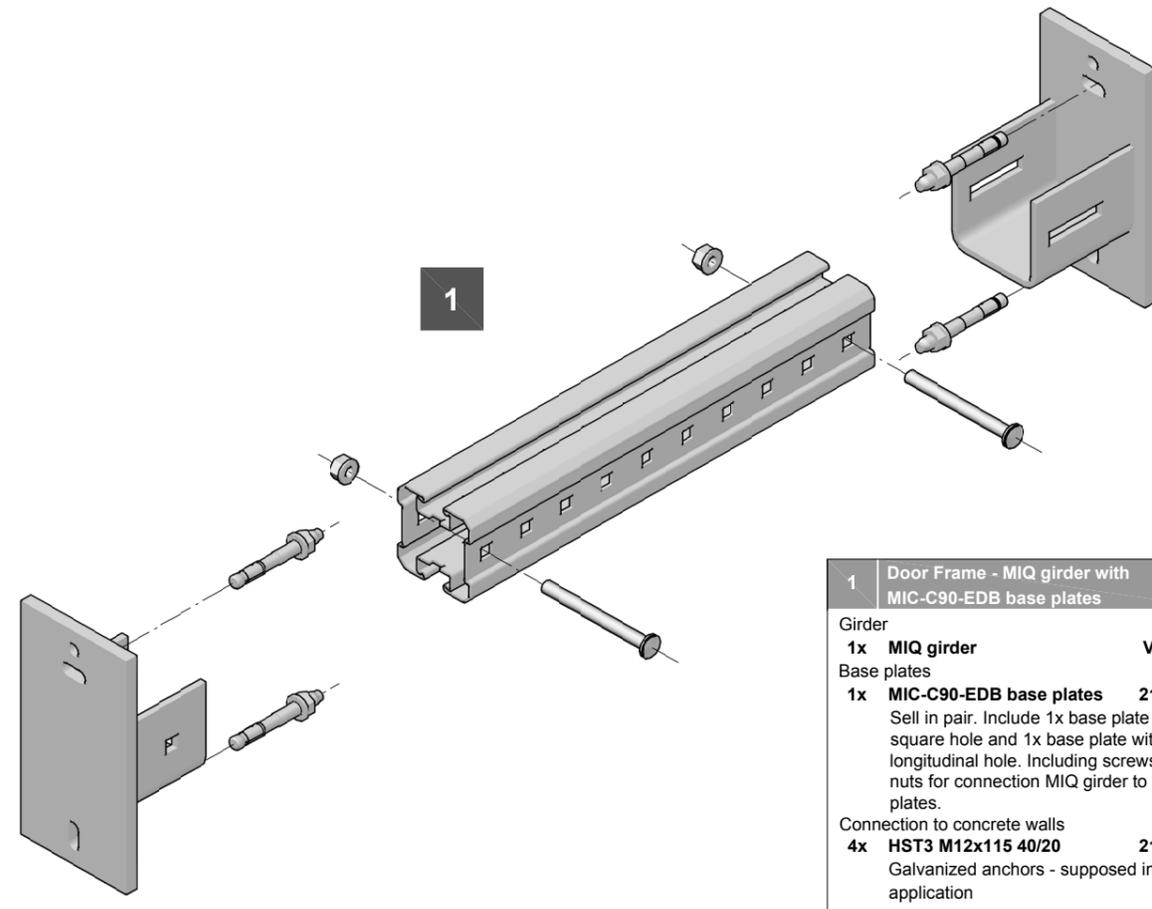
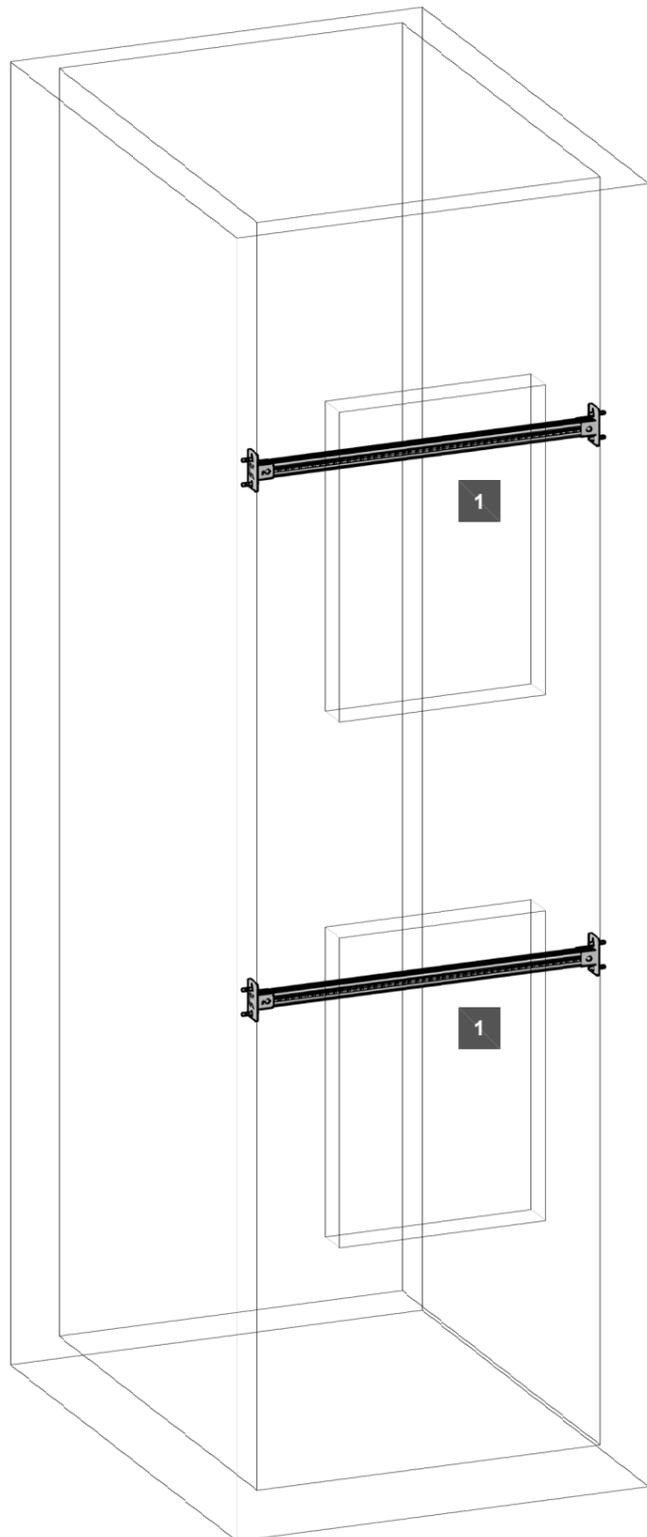
1	Divider Beam - MIQ girder with MIC-C90-EDB base plates
Girder	
1x	MIQ-90 girder Various
Base plates	
1x	MIC-C90-EDB base plates 2149279
Sell in pair. Include 1x base plate with square hole and 1x base plate with longitudinal hole. Including screws and nuts for connection MIQ girder to base plates.	
Connection to concrete walls	
4x	HST3 M12x115 40/20 2105719
Galvanized anchors - supposed indoor application	
2x	Seismic set M12 2127789
Seismic set have to be used with upper anchors. Seismic set is filled hybrid adhesive mortar HIT-HY 200 (HIT-HY 200-A 330ml 2022791)	

Girders	
MIQ-90	
MIQ-90 3m girder	2119866
MIQ-90 6m girder	2119867

Application description	Application	Product lines	Base material
MIQ System - Elevator - Divider Beam	 17	MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

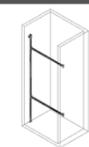
Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Elevator - Door Frame - Options



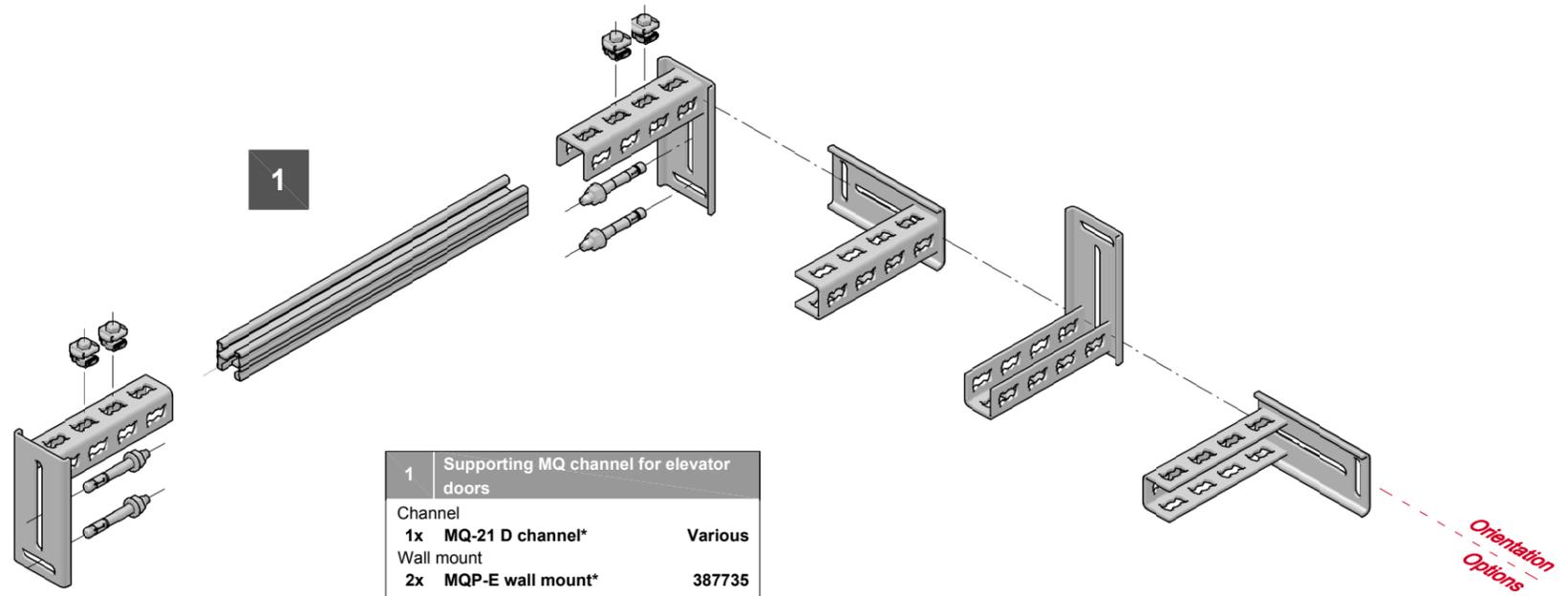
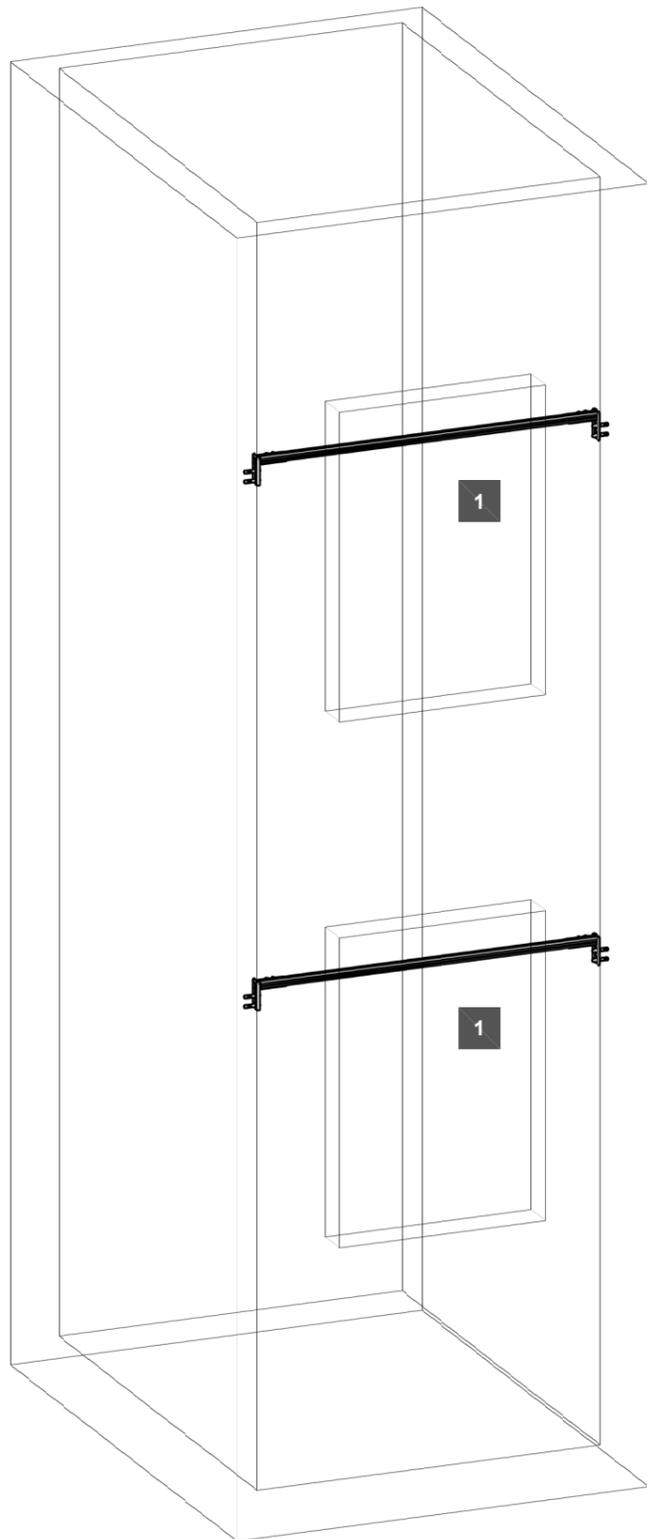
1	Door Frame - MIQ girder with MIC-C90-EDB base plates
Girder	
1x MIQ girder	Various
Base plates	
1x MIC-C90-EDB base plates	2149279
Sell in pair. Include 1x base plate with square hole and 1x base plate with longitudinal hole. Including screws and nuts for connection MIQ girder to base plates.	
Connection to concrete walls	
4x HST3 M12x115 40/20	2105718
Galvanized anchors - supposed indoor application	

Girders	
MIQ	
MIQ-90 3m girder	2119866
MIQ-90 6m girder	2119867

Application description	Application	Product lines	Base material
MIQ System - Elevator - Door Frame	 17	MIQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

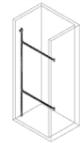
MQ System - Elevator - Door Frame - Options



1 Supporting MQ channel for elevator doors		
Channel		
1x	MQ-21 D channel*	Various
Wall mount		
2x	MQP-E wall mount*	387735
8x	MQN push button*	369623
Anchors		
4x	HST3 M12x105 30/10*	2105718

Channels	
MQ-21D	
MQ-21 D 3m channel	369601
MQ-21-D 6m channel	369603

* Item is galvanized - supposed indoor application.

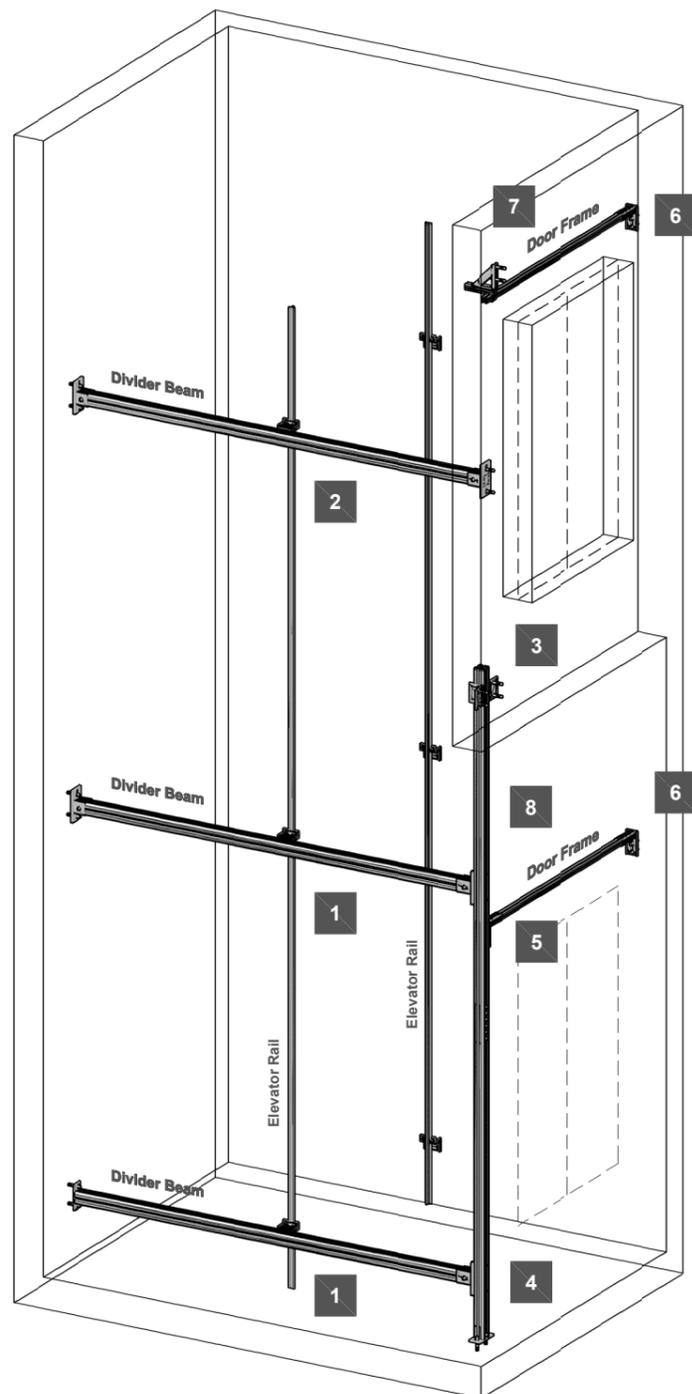
Application description	Application	Product lines	Base material
MQ System - Elevator - Door Frame	 17	MQ System	Concrete
General comments		Anchors	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

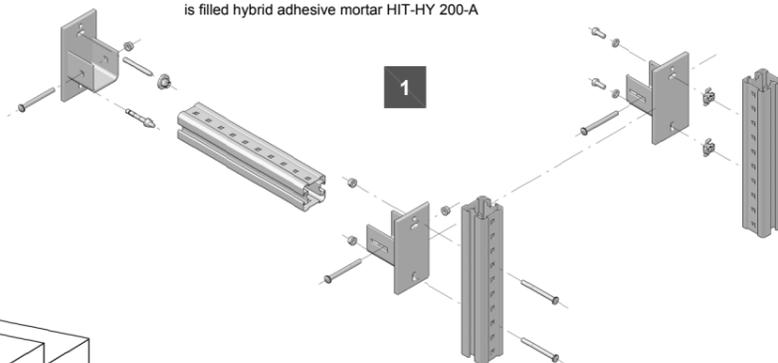
MIQ System - Elevator Shaft - Options

Girders	
MIQ-90	
MIQ-90 3m girder	2119866
MIQ-90 6m girder	2119867

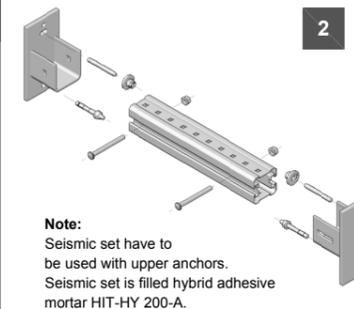
Channels	
MQ-21D	
MQ-21 D 3m channel	369601
MQ-21-D 6m channel	369603



Note:
Seismic set have to be used with upper anchors. Seismic set is filled hybrid adhesive mortar HIT-HY 200-A

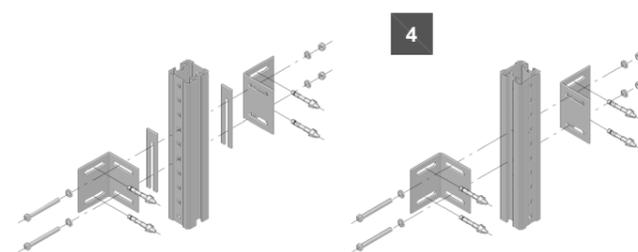


1 Horizontal girder between vertical girder and concrete wall	
Girder	
1x MIQ girder	Various
Base plates	
1x MIC-C90-EDB base plates	2149279
Sell in pair. Include 1x base plate with square hole and 1x base plate with longitudinal hole. Including screws and nuts for connection MIQ girder to base plates.	
Connection to concrete	
4x HST3 M12x115 40/20*	2105719
1x Seismic set M12	2127789
+ HIT-HY 200-A 330ml	2022791
Connection to vertical MIQ girder - options to MI side	
2x MIA-OH120 screw	304890
2x M12-F-SL-WS 3/4"	382897
Connection to vertical MIQ girder - options to MIQ side	
2x MIQM-M12 wing nut	2120275
2x M12x30-F hex. screw	284387
2x A13-F washer	304771

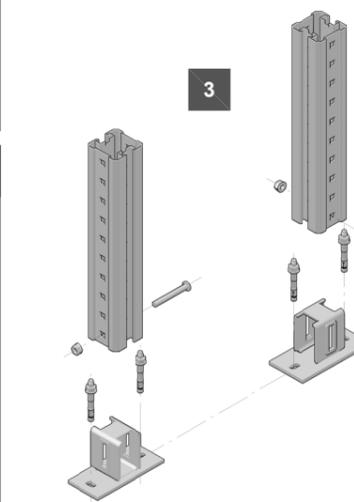


Note:
Seismic set have to be used with upper anchors. Seismic set is filled hybrid adhesive mortar HIT-HY 200-A.

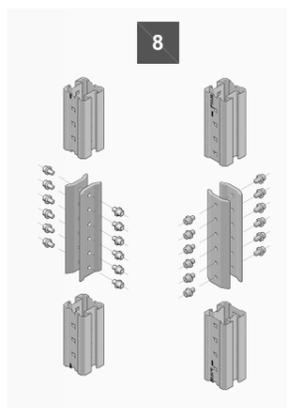
2 Horizontal girder between vertical girder and concrete wall	
Girder	
1x MIQ girder	Various
Base plates	
1x MIC-C90-EDB base plates	2149279
Sell in pair. Include 1x base plate with square hole and 1x base plate with longitudinal hole. Including screws and nuts for connection MIQ girder to base plates.	
Connection to concrete	
4x HST3 M12x115 40/20*	2105719
2x Seismic set M12	2127789
+ HIT-HY 200-A 330ml	2022791



4 Connection vertical girder to concrete wall	
Girder	
1x MIQ girder	Various
Base plate	
4x HST3 M12x105 30/10*	2105718
Connection to MIQ girder - options to MI side facing the wall	
2x MIC-U-EL angle	431681
2x MIC-U-EF fork	431682
2x M12x120-F 8.8 screw	283595
4x A13-F washer	304771
2x M12-F hex.nut	304766
Connection to MIQ girder - options to MIQ side facing the wall	
2x MIC-U-EL angle	431681
2x M12x120-F 8.8 screw	283595
4x A13-F washer	304771
2x M12-F hex.nut	304766



3 Connection vertical girder to concrete floor	
Girder	
1x MIQ girder	Various
Base plate	
Connection to MIQ girder - options to MIQ side facing the wall	
1x MIQC-C90-U-V base plate	2161806
Contains connector and all through bolts.	
Connection to MIQ girder - options to MI side facing the wall	
1x MIQC-C90-U base plate	2134819
Contains connector and all through bolts.	
Anchors	
2x HST3 M12x105 30/10*	2105718



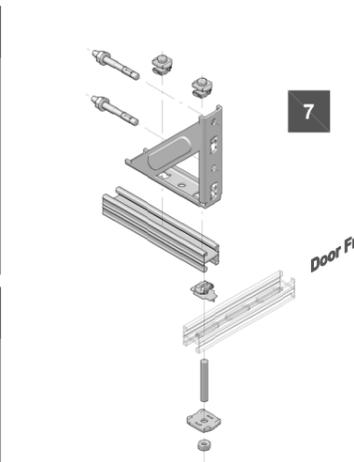
Note:
There are two options of orientation extension in MIQ girder.

8 Extension for MIQ girder	
Girder	
2x MIQ girder	Various
Extension	
1x MIQC-90-E	2140259
Contains connector and all through bolts.	



5 Supporting MQ channel for elevator doors	
Door frame channel	
1x MQ-21 D channel*	Various
Wall mount	
1x MQP-E wall mount*	387735
2x MQN push button*	369623
Connection to MIQ girder to MIQ side	
2x MIQM-M12 wing nut	2120275
2x M12x25-F hex crew	304789
2x A13-F washer	304771

6 Supporting MQ channel for elevator doors	
Door frame channel	
1x MQ-21 D channel*	Various
Wall mount	
1x MQP-E wall mount*	387735
2x MQN push button*	369623
Anchors	
2x HST3 M12x105 30/10*	2105718



7 Angle supporting door frame channel	
Door frame channel	
1x MQ-21 D channel*	Various
Angle	
1x MQW-S/2 angle*	369665
2x MQN push button*	369623
1x MQ-21 D channel*	Various
Short piece of channel	
2x HST3 M12x105 30/10*	2105718
Connection between door frame channel and angle with short piece of channel	
1x MIQM-M12 wing nut*	369627
1x AM12x1000 4.6 th. rod*	339797
Piece of th. rod with length 75 mm	
1x MQZ-L13 bored plate*	369680
1x M12 hex. nut*	216467
Connection to MIQ girder to MIQ side	
2x MIQM-M12 wing nut	2120275
2x M12x25-F hex crew	304789
2x A13-F washer	304771

Application description	Application	Product lines	Base material
MIQ System - Elevator Shaft	17	MIQ/MQ System	Concrete
General comments		Anchors	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

* Item is galvanized - supposed indoor application.

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Pipe Rings - Options

5 M16 options Single support		
Pipering saddle, nut and threaded rod		
1x	MQA-M16-F pipering saddle	304141
1x	M16-F hex. nut	304767
1x	AM16x1000-F 4.8	304776
Just a piece		
Pipering		
1x	MP-MXI-F 4" M16	374900
	MP-MXI-F 125 M16	374901
	MP-MXI-F 133 M16	374902
	MP-MXI-F 5" M16	374903
	MP-MXI-F 159 M16	374904
	MP-MXI-F 6" M16	374905
	MP-MXI-F 177.8 M16	374906
	MP-MXI-F 193.7 M16	374907
	MP-MXI-F 210 M16	374908
	MP-MXI-F 219 M16	374909
	MP-MXI-F 244.5 M16	374910
	MP-MXI-F 267/274 M16	374911
	MP-MXI-F 275 M16	374912
	MP-MXI-F 324 M16	374913
	MP-MXI-F 326 M16	374914
	MP-MXI-F 355 M16	374915
	MP-MXI-F 368 M16	374916
	MP-MXI-F 406 M16	374917
	MP-MXI-F 457 M16	374918
	MP-MXI-F 508 M16	374919

6 M12 options Double support		
Pipering saddle, nut and threaded rod		
2x	MQA-M12-F pipering saddle	304140
2x	M12-F hex. nut	304766
2x	AM12x1000-F 4.8	304774
Just a piece		
Pipering		
1x	MP-MXI-F 4" M16	374900
	MP-MXI-F 125 M16	374901
	MP-MXI-F 133 M16	374902
	MP-MXI-F 5" M16	374903
	MP-MXI-F 159 M16	374904
	MP-MXI-F 6" M16	374905
The original M12 screws from the pipering will remain unused		

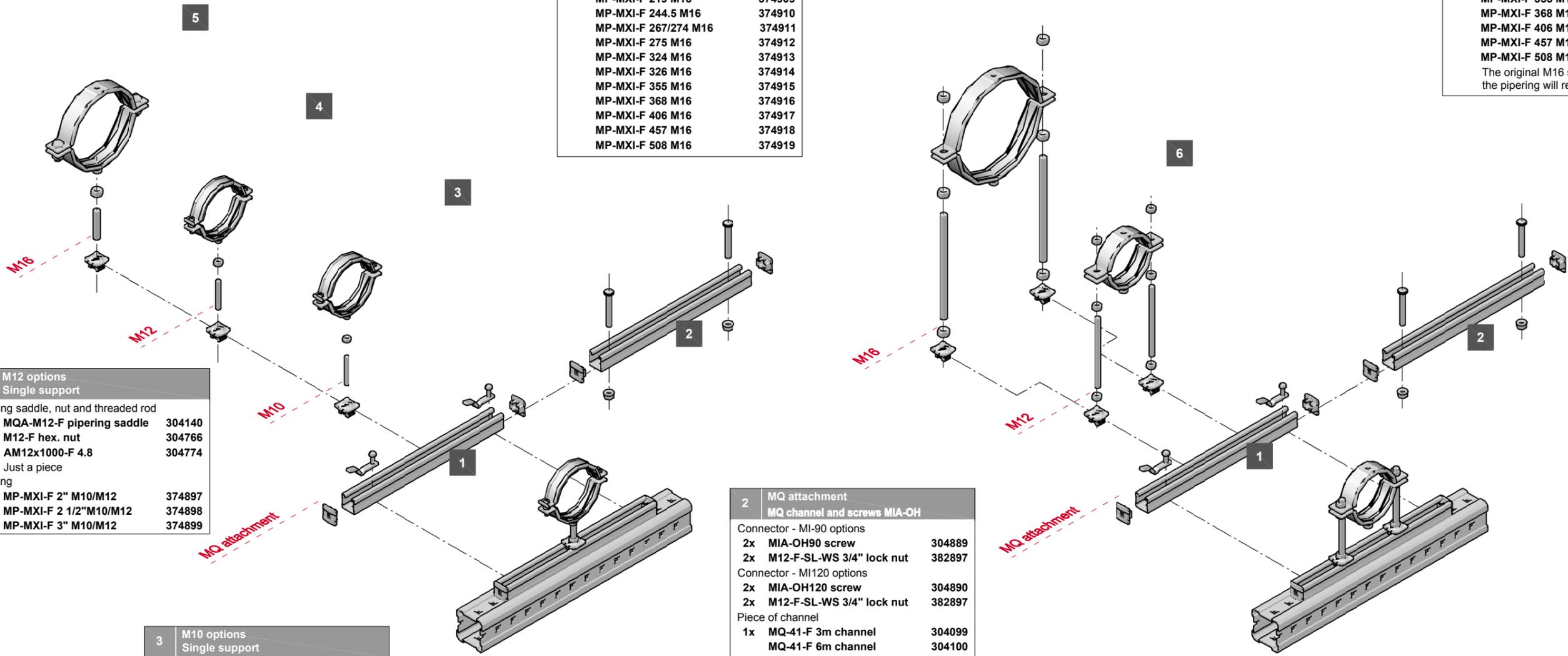
7 M16 options Double support		
Pipering saddle, nut and threaded rod		
2x	MQA-M16-F pipering saddle	304141
4x	M16-F hex. nut	304767
2x	AM16x1000-F 4.8	304776
Just a piece		
Pipering		
1x	MP-MXI-F 177.8 M16	374906
	MP-MXI-F 193.7 M16	374907
	MP-MXI-F 210 M16	374908
	MP-MXI-F 219 M16	374909
	MP-MXI-F 244.5 M16	374910
	MP-MXI-F 267/274 M16	374911
	MP-MXI-F 275 M16	374912
	MP-MXI-F 324 M16	374913
	MP-MXI-F 326 M16	374914
	MP-MXI-F 355 M16	374915
	MP-MXI-F 368 M16	374916
	MP-MXI-F 406 M16	374917
	MP-MXI-F 457 M16	374918
	MP-MXI-F 508 M16	374919
The original M16 screws from the pipering will remain unused		

4 M12 options Single support		
Pipering saddle, nut and threaded rod		
1x	MQA-M12-F pipering saddle	304140
1x	M12-F hex. nut	304766
1x	AM12x1000-F 4.8	304774
Just a piece		
Pipering		
1x	MP-MXI-F 2" M10/M12	374897
	MP-MXI-F 2 1/2" M10/M12	374898
	MP-MXI-F 3" M10/M12	374899

2 MQ attachment MQ channel and screws MIA-OH		
Connector - MI-90 options		
2x	MIA-OH90 screw	304889
2x	M12-F-SL-WS 3/4" lock nut	382897
Connector - MI120 options		
2x	MIA-OH120 screw	304890
2x	M12-F-SL-WS 3/4" lock nut	382897
Piece of channel		
1x	MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
2x	MQZ-E41 plastic endcap	369685

1 MQ attachment MQ channel and connector MIC-MI/MQ		
Connector		
2x	MIC-MI-/MQ-M8 connector	304882
Piece of channel		
1x	MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
2x	MQZ-E41 plastic endcap	369685

3 M10 options Single support		
Pipering saddle, nut and threaded rod		
1x	MQA-M10-F pipering saddle	304139
1x	M10-F hex. nut	304765
1x	AM10x1000-F 4.8	304773
Just a piece		
Pipering		
1x	MP-MI-F 1/2"	304258
	MP-MI-F 3/4"	304259
	MP-MI-F 1"	304260
	MP-MI-F 1 1/4"	304261
	MP-MI-F 1 1/2"	304262
	MP-MI-F 5/4/57	304263
	MP-MI-F 2"	304264
	MP-MI-F 2 1/2"	304266
	MP-MI-F 80/84	304267
	MP-MI-F 3"	304268



Application description	Application	Product lines	Base material
MI System - Pipe Rings on MQ attachment	18	MI System	
General comments		Pipe Rings	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

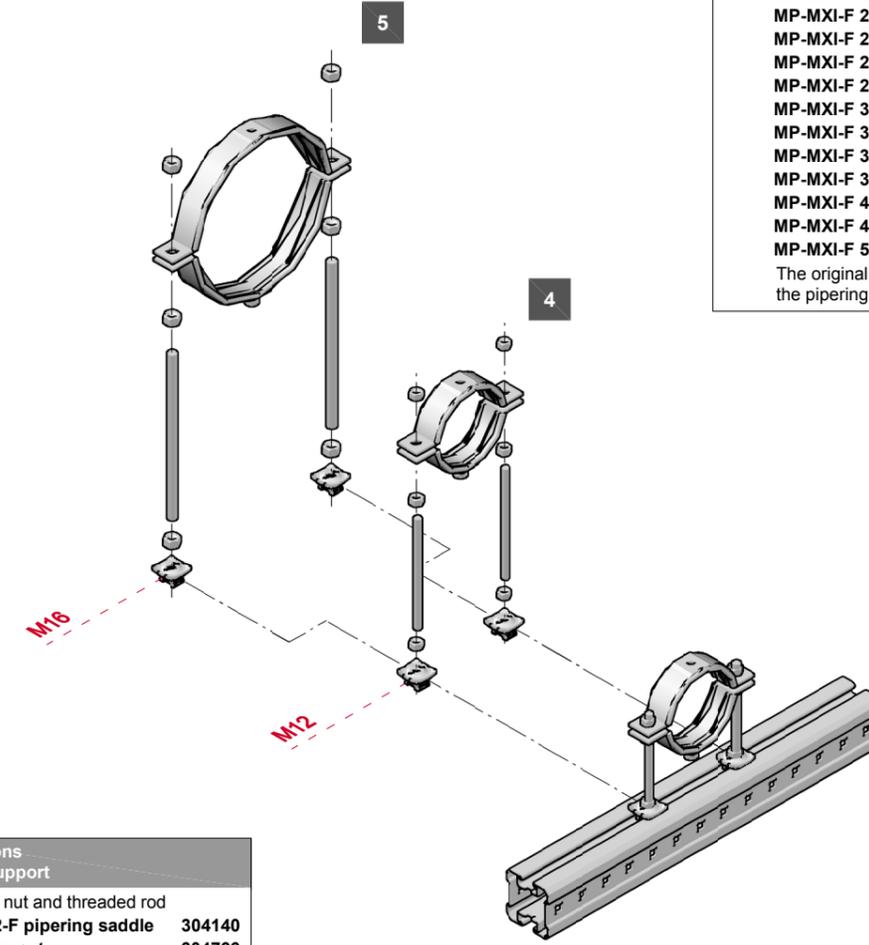
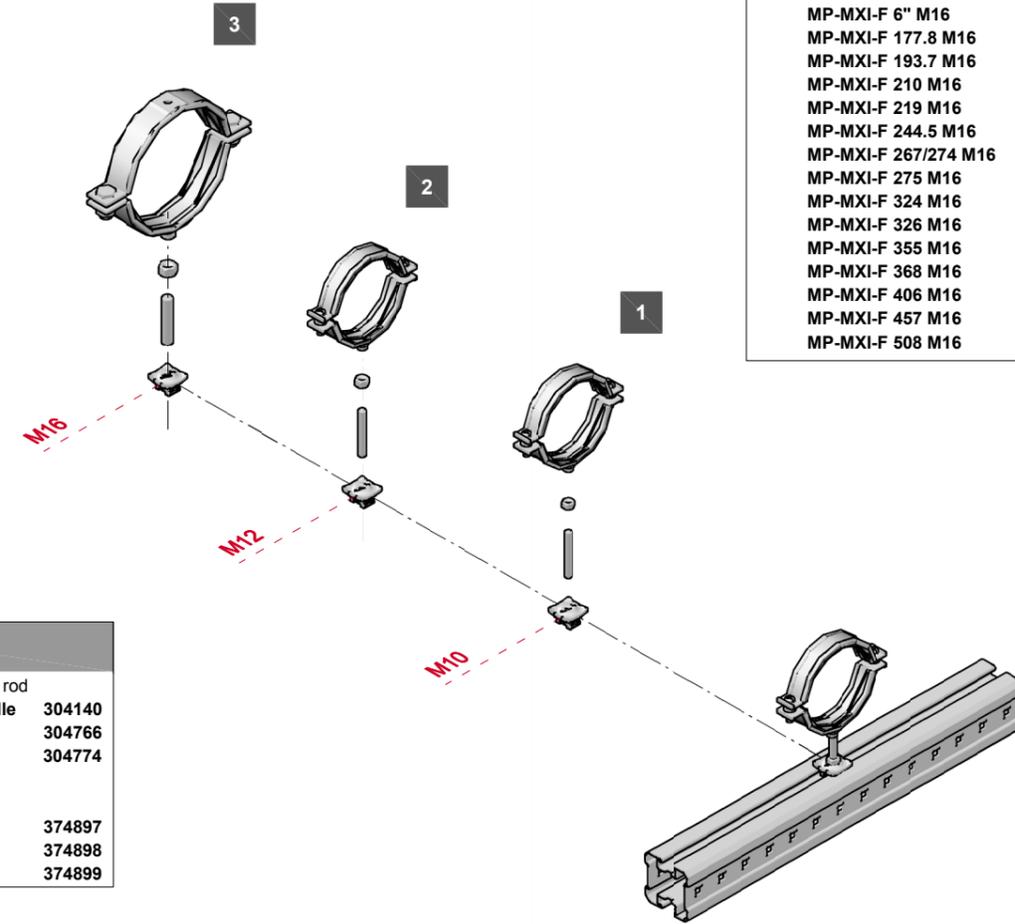
MIQ System - Pipe Rings - Options

3 M16 options Single support		
Pipering saddle, nut and threaded rod		
1x	MQA-M16-F pipering saddle	304141
1x	M16-F hex. nut	304767
1x	AM16x1000-F 4.8 Just a piece	304776
Pipering		
1x	MP-MXI-F 4" M16	374900
	MP-MXI-F 125 M16	374901
	MP-MXI-F 133 M16	374902
	MP-MXI-F 5" M16	374903
	MP-MXI-F 159 M16	374904
	MP-MXI-F 6" M16	374905
	MP-MXI-F 177.8 M16	374906
	MP-MXI-F 193.7 M16	374907
	MP-MXI-F 210 M16	374908
	MP-MXI-F 219 M16	374909
	MP-MXI-F 244.5 M16	374910
	MP-MXI-F 267/274 M16	374911
	MP-MXI-F 275 M16	374912
	MP-MXI-F 324 M16	374913
	MP-MXI-F 326 M16	374914
	MP-MXI-F 355 M16	374915
	MP-MXI-F 368 M16	374916
	MP-MXI-F 406 M16	374917
	MP-MXI-F 457 M16	374918
	MP-MXI-F 508 M16	374919

5 M16 options Double support		
Pipering saddle, nut and threaded rod		
2x	MQA-M16-F pipering saddle	304141
4x	M16-F hex. nut	304767
2x	AM16x1000-F 4.8 Just a piece	304776
Pipering		
1x	MP-MXI-F 177.8 M16	374906
	MP-MXI-F 193.7 M16	374907
	MP-MXI-F 210 M16	374908
	MP-MXI-F 219 M16	374909
	MP-MXI-F 244.5 M16	374910
	MP-MXI-F 267/274 M16	374911
	MP-MXI-F 275 M16	374912
	MP-MXI-F 324 M16	374913
	MP-MXI-F 326 M16	374914
	MP-MXI-F 355 M16	374915
	MP-MXI-F 368 M16	374916
	MP-MXI-F 406 M16	374917
	MP-MXI-F 457 M16	374918
	MP-MXI-F 508 M16	374919
The original M16 screws from the pipering will remain unused		

2 M12 options Single support		
Pipering saddle, nut and threaded rod		
1x	MQA-M12-F pipering saddle	304140
1x	M12-F hex. nut	304766
1x	AM12x1000-F 4.8 Just a piece	304774
Pipering		
1x	MP-MXI-F 2" M10/M12	374897
	MP-MXI-F 2 1/2" M10/M12	374898
	MP-MXI-F 3" M10/M12	374899

4 M12 options Double support		
Pipering saddle, nut and threaded rod		
2x	MQA-M12-F pipering saddle	304140
2x	M12-F hex. nut	304766
2x	AM12x1000-F 4.8 Just a piece	304774
Pipering		
1x	MP-MXI-F 4" M16	374900
	MP-MXI-F 125 M16	374901
	MP-MXI-F 133 M16	374902
	MP-MXI-F 5" M16	374903
	MP-MXI-F 159 M16	374904
	MP-MXI-F 6" M16	374905
The original M12 screws from the pipering will remain unused		



1 M10 options Single support		
Pipering saddle, nut and threaded rod		
1x	MQA-M10-F pipering saddle	304139
1x	M10-F hex. nut	304765
1x	AM10x1000-F 4.8 Just a piece	304773
Pipering		
1x	MP-MI-F 1/2"	304258
	MP-MI-F 3/4"	304259
	MP-MI-F 1"	304260
	MP-MI-F 1 1/4"	304261
	MP-MI-F 1 1/2"	304262
	MP-MI-F 54/57	304263
	MP-MI-F 2"	304264
	MP-MI-F 2 1/2"	304266
	MP-MI-F 80/84	304267
	MP-MI-F 3"	304268

Application description	Application	Product lines	Base material
MIQ System - Pipe Rings	18	MIQ System	
General comments		Pipe Rings	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI System - Pipe Shoes - Options

3 Pipe shoes MI-PS 1/1, height 107 and 142mm		
MI-PS2/2 200-107		304863
MI-PS2/2 250-107		304864
MI-PS2/2 300-107		304865
MI-PS2/2 350-142		304866
MI-PS2/2 400-142		304867
MI-PS2/2 500-142		304868
MI-PS2/2 600-142		304869

2 Pipe shoes MI-PS 2/1, height 85 and 107mm		
MI-PS2/1 25-85		304852
MI-PS2/1 40-85		304853
MI-PS2/1 50-85		304854
MI-PS2/1 65-85		304855
MI-PS2/1 80-85		304856
MI-PS2/1 100-85		304857
MI-PS2/1 125-85		304858
MI-PS2/1 150-85		304859
MI-PS2/1 200-107		304860
MI-PS2/1 250-107		304861
MI-PS2/1 300-107		304862

9 Guided support with low friction plate for MI-90 girder - MIC-PS90 connector		
1x MIC-PS90 connector		304838
1x MIC-PG low friction insert		304842

8 Guided support for MI-90 girder MIC-PS90 connector		
1x MIC-PS90 connector		304838

7 Fixed support for MI-90 girder MIA-BO90-M12 connector		
1x MIA-BO90-M12 connector		304840

1 Pipe shoes MI-PS 1/1, height 85mm		
MI-PS1/1 25-85		304844
MI-PS1/1 40-85		304845
MI-PS1/1 50-85		304846
MI-PS1/1 65-85		304847
MI-PS1/1 80-85		304848
MI-PS1/1 100-85		304849
MI-PS1/1 125-85		304850
MI-PS1/1 150-85		304851

12 Guided support with low friction plate for MI-120 girder - MIC-PS120 connector		
1x MIC-PS120 connector		304839
1x MIC-PG low friction insert		304842

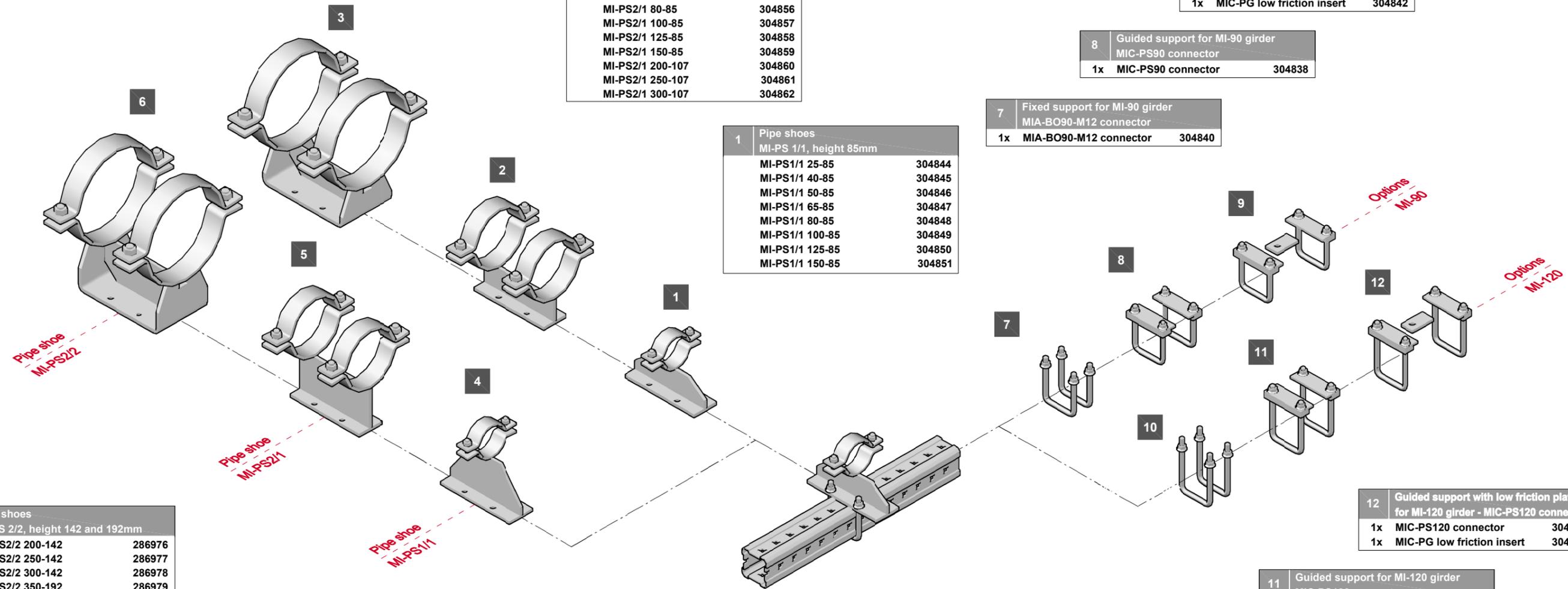
11 Guided support for MI-120 girder MIC-PS120 connector		
1x MIC-PS120 connector		304839

10 Fixed support for MI-120 girder MIA-BO120-M12 connector		
1x MIA-BO120-M12 connector		304841

6 Pipe shoes MI-PS 2/2, height 142 and 192mm		
MI-PS2/2 200-142		286976
MI-PS2/2 250-142		286977
MI-PS2/2 300-142		286978
MI-PS2/2 350-192		286979
MI-PS2/2 400-192		286980
MI-PS2/2 500-192		286981
MI-PS2/2 600-192		286982

5 Pipe shoes MI-PS 2/1, height 140 and 142mm		
MI-PS2/1 25-140		286965
MI-PS2/1 40-140		286966
MI-PS2/1 50-140		286967
MI-PS2/1 65-140		286968
MI-PS2/1 80-140		286969
MI-PS2/1 100-140		286970
MI-PS2/1 125-140		286971
MI-PS2/1 150-140		286972
MI-PS2/1 200-142		286973
MI-PS2/1 250-142		286974
MI-PS2/1 300-142		286975

4 Pipe shoes MI-PS 1/1, height 140mm		
MI-PS1/1 25-140		286957
MI-PS1/1 40-140		286958
MI-PS1/1 50-140		286959
MI-PS1/1 65-140		286960
MI-PS1/1 80-140		286961
MI-PS1/1 100-140		286962
MI-PS1/1 125-140		286963
MI-PS1/1 150-140		286964



Application description	Application	Product lines	Base material
MI System - Pipe Shoes	 18	MI System	
General comments		Pipe shoes	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MIQ System - Pipe Shoes - Options

3 Pipe shoes MI-PS 1/1, height 107 and 142mm		
MI-PS2/2 200-107		304863
MI-PS2/2 250-107		304864
MI-PS2/2 300-107		304865
MI-PS2/2 350-142		304866
MI-PS2/2 400-142		304867
MI-PS2/2 500-142		304868
MI-PS2/2 600-142		304869

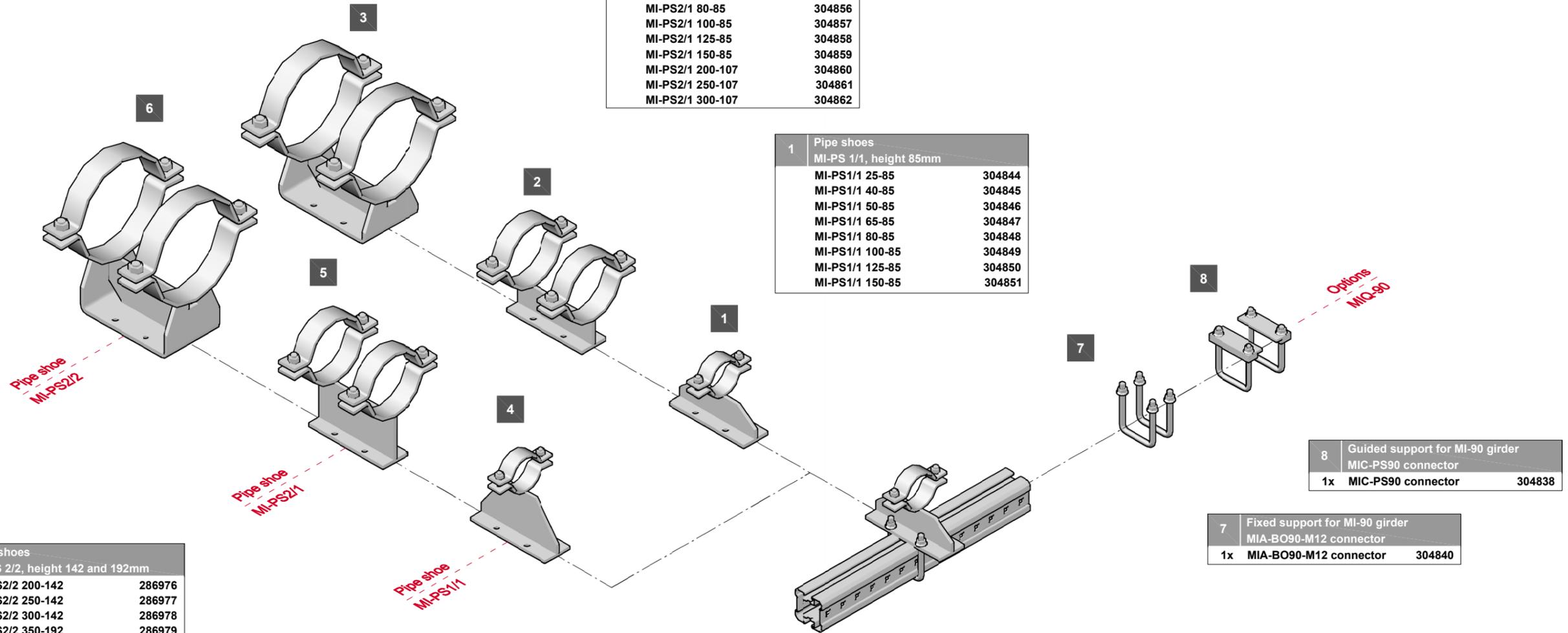
2 Pipe shoes MI-PS 2/1, height 85 and 107mm		
MI-PS2/1 25-85		304852
MI-PS2/1 40-85		304853
MI-PS2/1 50-85		304854
MI-PS2/1 65-85		304855
MI-PS2/1 80-85		304856
MI-PS2/1 100-85		304857
MI-PS2/1 125-85		304858
MI-PS2/1 150-85		304859
MI-PS2/1 200-107		304860
MI-PS2/1 250-107		304861
MI-PS2/1 300-107		304862

1 Pipe shoes MI-PS 1/1, height 85mm		
MI-PS1/1 25-85		304844
MI-PS1/1 40-85		304845
MI-PS1/1 50-85		304846
MI-PS1/1 65-85		304847
MI-PS1/1 80-85		304848
MI-PS1/1 100-85		304849
MI-PS1/1 125-85		304850
MI-PS1/1 150-85		304851

6 Pipe shoes MI-PS 2/2, height 142 and 192mm		
MI-PS2/2 200-142		286976
MI-PS2/2 250-142		286977
MI-PS2/2 300-142		286978
MI-PS2/2 350-192		286979
MI-PS2/2 400-192		286980
MI-PS2/2 500-192		286981
MI-PS2/2 600-192		286982

5 Pipe shoes MI-PS 2/1, height 140 and 142mm		
MI-PS2/1 25-140		286965
MI-PS2/1 40-140		286966
MI-PS2/1 50-140		286967
MI-PS2/1 65-140		286968
MI-PS2/1 80-140		286969
MI-PS2/1 100-140		286970
MI-PS2/1 125-140		286971
MI-PS2/1 150-140		286972
MI-PS2/1 200-142		286973
MI-PS2/1 250-142		286974
MI-PS2/1 300-142		286975

4 Pipe shoes MI-PS 1/1, height 140mm		
MI-PS1/1 25-140		286957
MI-PS1/1 40-140		286958
MI-PS1/1 50-140		286959
MI-PS1/1 65-140		286960
MI-PS1/1 80-140		286961
MI-PS1/1 100-140		286962
MI-PS1/1 125-140		286963
MI-PS1/1 150-140		286964



8 Guided support for MI-90 girder MIC-PS90 connector		
1x MIC-PS90 connector		304838

7 Fixed support for MI-90 girder MIA-BO90-M12 connector		
1x MIA-BO90-M12 connector		304840

Application description	Application	Product lines	Base material
MIQ System - Pipe Shoes	 18	MIQ System	
General comments		Pipe shoes	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

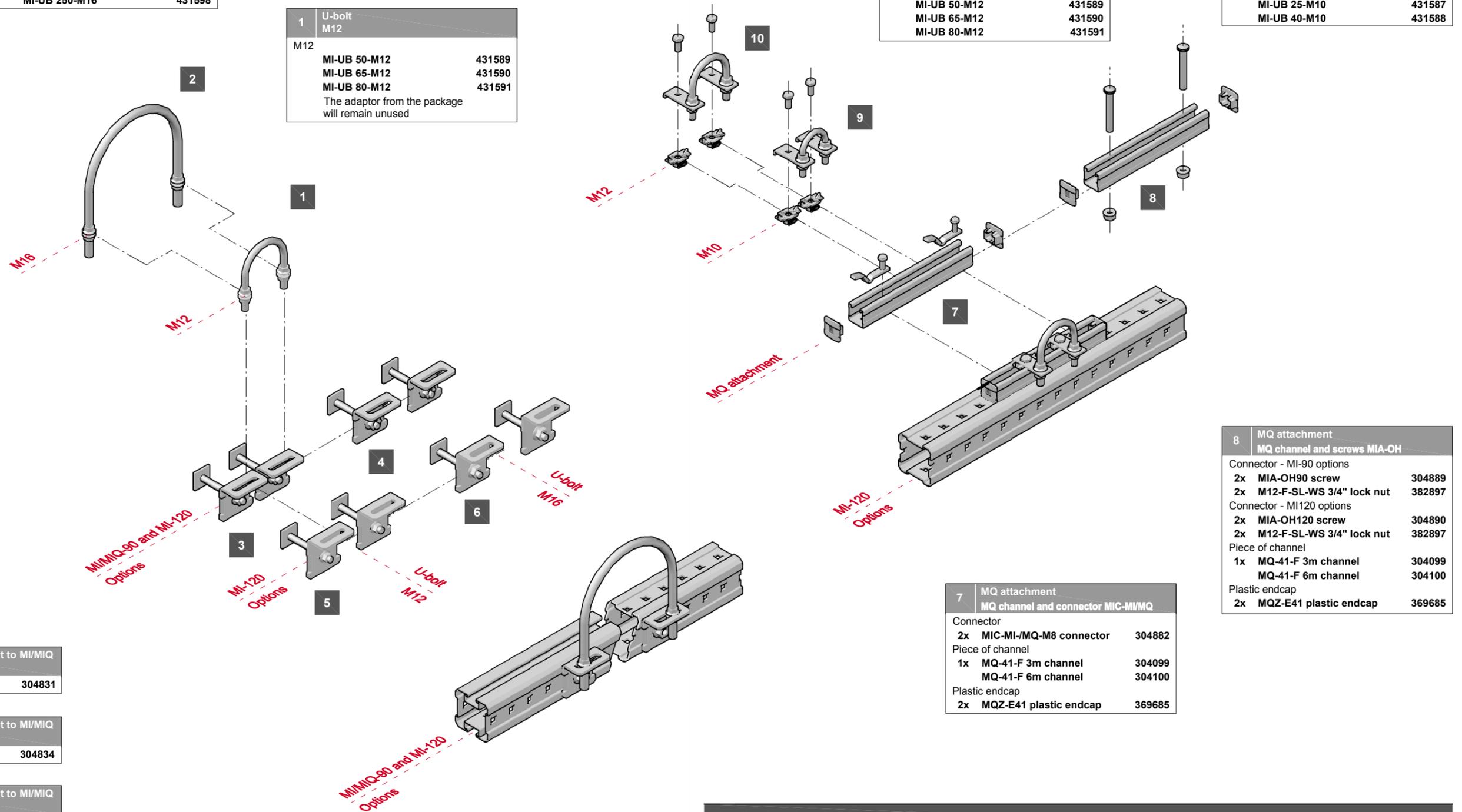
MI/MIQ System - U-bolts - Options

2	U-bolt M16	
M16		
	MI-UB 100-M16	431592
	MI-UB 125-M16	431593
	MI-UB 150-M16	431594
	MI-UB 200-M16	431595
	MI-UB 250-M16	431598

1	U-bolt M12	
M12		
	MI-UB 50-M12	431589
	MI-UB 65-M12	431590
	MI-UB 80-M12	431591
The adaptor from the package will remain unused		

10	U-bolt with adaptor M12	
Connection		
	2x MQM-M10 HDG wing nut	298510
	2x M10x25-F hex. screw	304788
U-bolt M12		
	MI-UB 50-M12	431589
	MI-UB 65-M12	431590
	MI-UB 80-M12	431591

9	U-bolt with adaptor M10	
Connection		
	2x MQM-M10 HDG wing nut	298510
	2x M10x25-F hex. screw	304788
U-bolt M10		
	MI-UB 25-M10	431587
	MI-UB 40-M10	431588



3	Angle for connection U-bolt to MI/MIQ girder	
1x	MIC-UB90-M12 angle	304831

4	Angle for connection U-bolt to MI/MIQ girder	
1x	MIC-UB90-M16 angle	304834

5	Angle for connection U-bolt to MI/MIQ girder	
1x	MIC-UB120-M12 angle	304833

6	Angle for connection U-bolt to MI/MIQ girder	
1x	MIC-UB120-M16 angle	304835

7	MQ attachment MQ channel and connector MIC-MI/MQ	
Connector		
	2x MIC-MI/MQ-M8 connector	304882
Piece of channel		
	1x MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
	2x MQZ-E41 plastic endcap	369685

8	MQ attachment MQ channel and screws MIA-OH	
Connector - MI-90 options		
	2x MIA-OH90 screw	304889
	2x M12-F-SL-WS 3/4" lock nut	382897
Connector - MI120 options		
	2x MIA-OH120 screw	304890
	2x M12-F-SL-WS 3/4" lock nut	382897
Piece of channel		
	1x MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
	2x MQZ-E41 plastic endcap	369685

Application description	Application	Product lines	Base material
MI/MIQ System - U-bolts	 18	MI/MIQ System	
General comments		U-bolts	
<ul style="list-style-type: none"> These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 		Accessories	

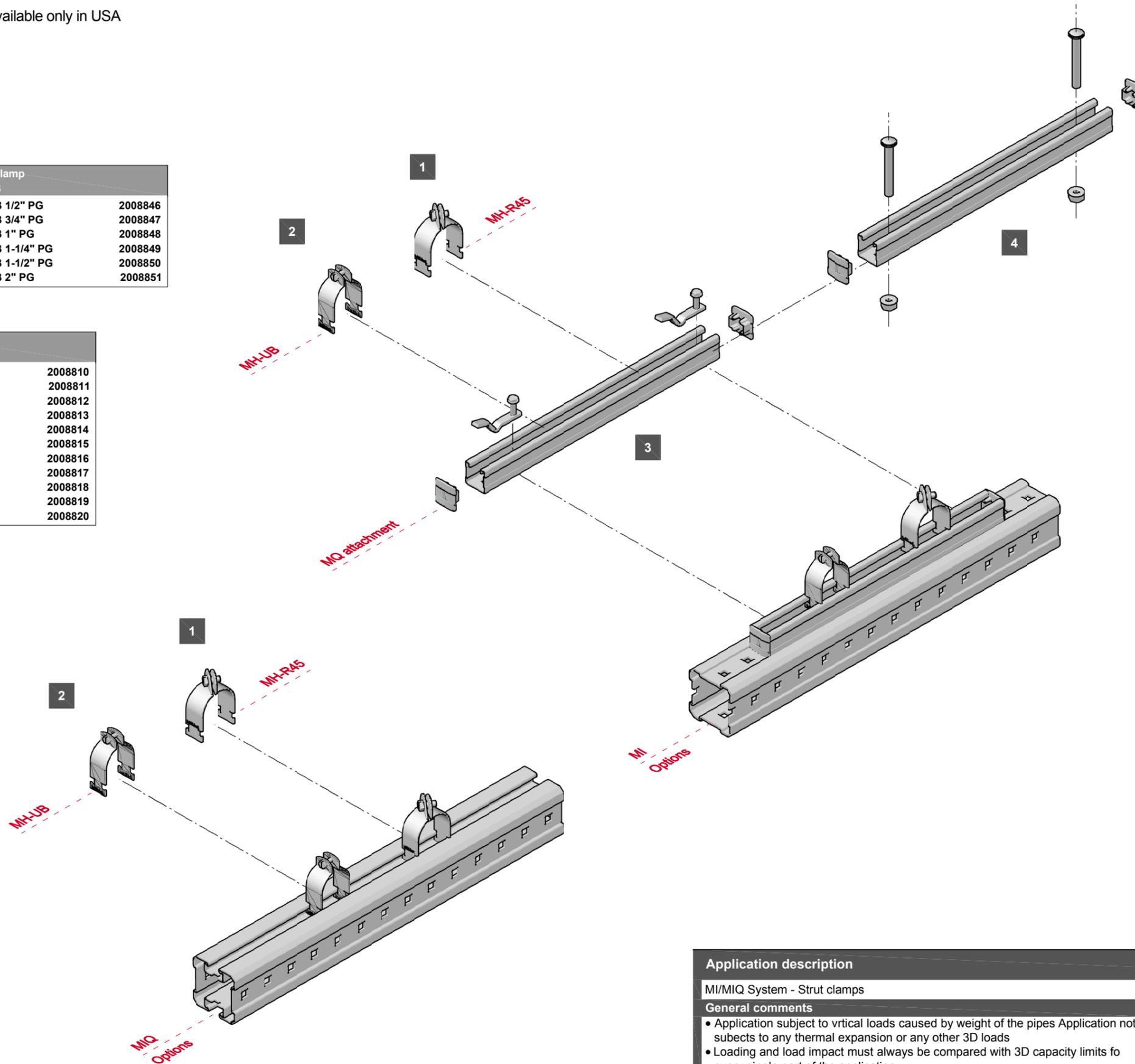
Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ - Strut clamps - Options

Note: These "Strut clamps" are available only in USA

2	Strut clamp MH-UB	
	MH-UB 1/2" PG	2008846
	MH-UB 3/4" PG	2008847
	MH-UB 1" PG	2008848
	MH-UB 1-1/4" PG	2008849
	MH-UB 1-1/2" PG	2008850
	MH-UB 2" PG	2008851

1	Strut clamp MH-R45	
	MH-R45 1/2" PG	2008810
	MH-R45 3/4" PG	2008811
	MH-R45 1" PG	2008812
	MH-R45 1-1/4" PG	2008813
	MH-R45 1-1/2" PG	2008814
	MH-R45 2" PG	2008815
	MH-R45 2-1/2" PG	2008816
	MH-R45 3" PG	2008817
	MH-R45 4" PG	2008818
	MH-R45 6" PG	2008819
	MH-R45 8" PG	2008820



4	MQ attachment MQ channel and screws MIA-OH	
Connector - MI-90 options		
2x	MIA-OH90 screw	304889
2x	M12-F-SL-WS 3/4" lock nut	382897
Connector - MI120 options		
2x	MIA-OH120 screw	304890
2x	M12-F-SL-WS 3/4" lock nut	382897
Piece of channel		
1x	MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
2x	MQZ-E41 plastic endcap	369685

3	MQ attachment MQ channel and connector MIC-MI/MQ	
Connector		
2x	MIC-MI-/MQ-M8 connector	304882
Piece of channel		
1x	MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
2x	MQZ-E41 plastic endcap	369685

Application description	Application	Product lines	Base material
MI/MIQ System - Strut clamps	18	MI/MIQ System	
General comments		Strut clamps	
<ul style="list-style-type: none"> Application subject to vertical loads caused by weight of the pipes Application not subjects to any thermal expansion or any other 3D loads Loading and load impact must always be compared with 3D capacity limits for every single part of the application 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

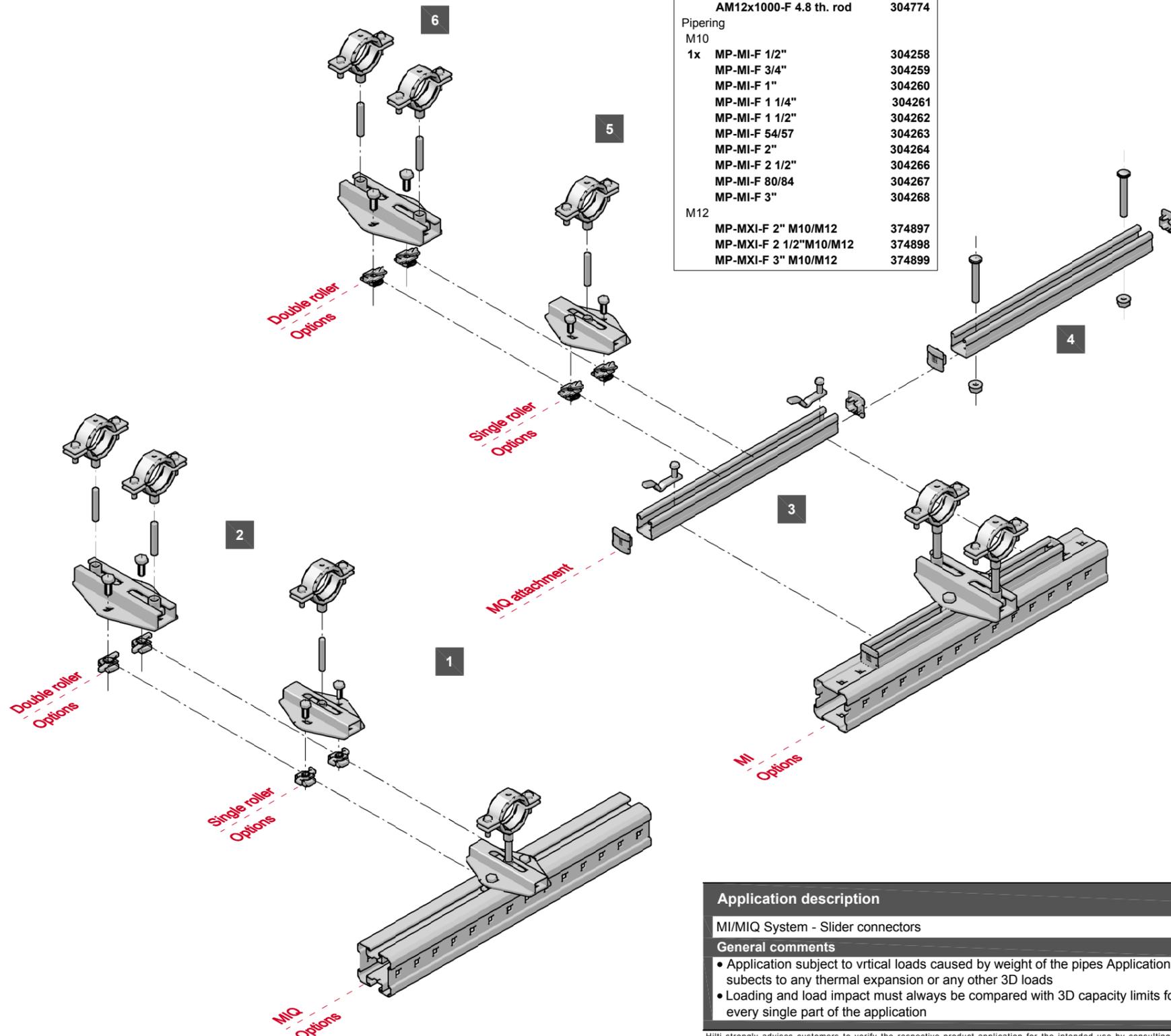
MI/MIQ - Roller connectors - Options

2 Double roll connector MRG-D6-F M12/M16 and piperings		
Roller connector		
1x	MRG-D6-F M12/M16 roller	304214
Connection to MQ attachment		
2x	MQIM-M12 wing nut	2120275
2x	M12x20-F hex. screw	2131566
Piece of threaded rod M12 or M16		
1x	AM12x1000-F 4.8 th. rod	304774
	AM16x1000-F 4.8 th. rod	304776
Piperings		
M12		
2x	MP-MXI-F 2" M10/M12	374897
	MP-MXI-F 2 1/2" M10/M12	374898
	MP-MXI-F 3" M10/M12	374899
M16		
	MP-MXI-F 4" M16	374900
	MP-MXI-F 125 M16	374901
	MP-MXI-F 133 M16	374902
	MP-MXI-F 5" M16	374903
	MP-MXI-F 159 M16	374904
	MP-MXI-F 6" M16	374905
	MP-MXI-F 177.8 M16	374906
	MP-MXI-F 193.7 M16	374907
	MP-MXI-F 210 M16	374908
	MP-MXI-F 219 M16	374909
	MP-MXI-F 244.5 M16	374910
	MP-MXI-F 267/274 M16	374911
	MP-MXI-F 275 M16	374912
	MP-MXI-F 324 M16	374913
	MP-MXI-F 326 M16	374914
	MP-MXI-F 355 M16	374915
	MP-MXI-F 368 M16	374916
	MP-MXI-F 406 M16	374917
	MP-MXI-F 457 M16	374918
	MP-MXI-F 508 M16	374919

1 Single roll connector MRG 4.0 M10/M12 and piperings		
Roller connector		
1x	MRG 2.0 M10/M12-F roller	304213
Connection to MQ attachment		
2x	MQIM-M10 wing nut	2120274
2x	M10x20-F hex. screw	2131565
Piece of threaded rod M10 or M12		
1x	AM10x1000-F 4.8 th. rod	304773
	AM12x1000-F 4.8 th. rod	304774
Piperings		
M10		
1x	MP-MI-F 1/2"	304258
	MP-MI-F 3/4"	304259
	MP-MI-F 1"	304260
	MP-MI-F 1 1/4"	304261
	MP-MI-F 1 1/2"	304262
	MP-MI-F 54/57	304263
	MP-MI-F 2"	304264
	MP-MI-F 2 1/2"	304266
	MP-MI-F 80/84	304267
	MP-MI-F 3"	304268
M12		
	MP-MXI-F 2" M10/M12	374897
	MP-MXI-F 2 1/2" M10/M12	374898
	MP-MXI-F 3" M10/M12	374899

5 Single roll connector MRG 4.0 M10/M12 and piperings		
Roller connector		
1x	MRG 2.0 M10/M12-F roller	304213
Connection to MQ attachment		
2x	MQM-M10 HDG wing nut	298510
2x	M10x25-F hex. screw	304788
Piece of threaded rod M10 or M12		
1x	AM10x1000-F 4.8 th. rod	304773
	AM12x1000-F 4.8 th. rod	304774
Piperings		
M10		
1x	MP-MI-F 1/2"	304258
	MP-MI-F 3/4"	304259
	MP-MI-F 1"	304260
	MP-MI-F 1 1/4"	304261
	MP-MI-F 1 1/2"	304262
	MP-MI-F 54/57	304263
	MP-MI-F 2"	304264
	MP-MI-F 2 1/2"	304266
	MP-MI-F 80/84	304267
	MP-MI-F 3"	304268
M12		
	MP-MXI-F 2" M10/M12	374897
	MP-MXI-F 2 1/2" M10/M12	374898
	MP-MXI-F 3" M10/M12	374899

6 Double roll connector MRG-D6-F M12/M16 and piperings		
Roller connector		
1x	MRG-D6-F M12/M16 roller	304214
Connection to MQ attachment		
2x	MQM-M12-F wing nut	304134
2x	M12x25-F hex. screw	304789
Piece of threaded rod M12 or M16		
1x	AM12x1000-F 4.8 th. rod	304774
	AM16x1000-F 4.8 th. rod	304776
Piperings		
M12		
2x	MP-MXI-F 2" M10/M12	374897
	MP-MXI-F 2 1/2" M10/M12	374898
	MP-MXI-F 3" M10/M12	374899
M16		
	MP-MXI-F 4" M16	374900
	MP-MXI-F 125 M16	374901
	MP-MXI-F 133 M16	374902
	MP-MXI-F 5" M16	374903
	MP-MXI-F 159 M16	374904
	MP-MXI-F 6" M16	374905
	MP-MXI-F 177.8 M16	374906
	MP-MXI-F 193.7 M16	374907
	MP-MXI-F 210 M16	374908
	MP-MXI-F 219 M16	374909
	MP-MXI-F 244.5 M16	374910
	MP-MXI-F 267/274 M16	374911
	MP-MXI-F 275 M16	374912
	MP-MXI-F 324 M16	374913
	MP-MXI-F 326 M16	374914
	MP-MXI-F 355 M16	374915
	MP-MXI-F 368 M16	374916
	MP-MXI-F 406 M16	374917
	MP-MXI-F 457 M16	374918
	MP-MXI-F 508 M16	374919



4 MQ attachment MQ channel and screws MIA-OH		
Connector - MI-90 options		
2x	MIA-OH90 screw	304889
2x	M12-F-SL-WS 3/4" lock nut	382897
Connector - MI120 options		
2x	MIA-OH120 screw	304890
2x	M12-F-SL-WS 3/4" lock nut	382897
Piece of channel		
1x	MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
2x	MQZ-E41 plastic endcap	369685

3 MQ attachment MQ channel and connector MIC-MI/MQ		
Connector		
2x	MIC-MI-/MQ-M8 connector	304882
Piece of channel		
1x	MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
2x	MQZ-E41 plastic endcap	369685

Application description	Application	Product lines	Base material
MI/MIQ System - Slider connectors	18	MI/MIQ System	
General comments		Slider / rollers	
<ul style="list-style-type: none"> Application subject to vertical loads caused by weight of the pipes Application not subjects to any thermal expansion or any other 3D loads Loading and load impact must always be compared with 3D capacity limits for every single part of the application 		Pipe rings	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

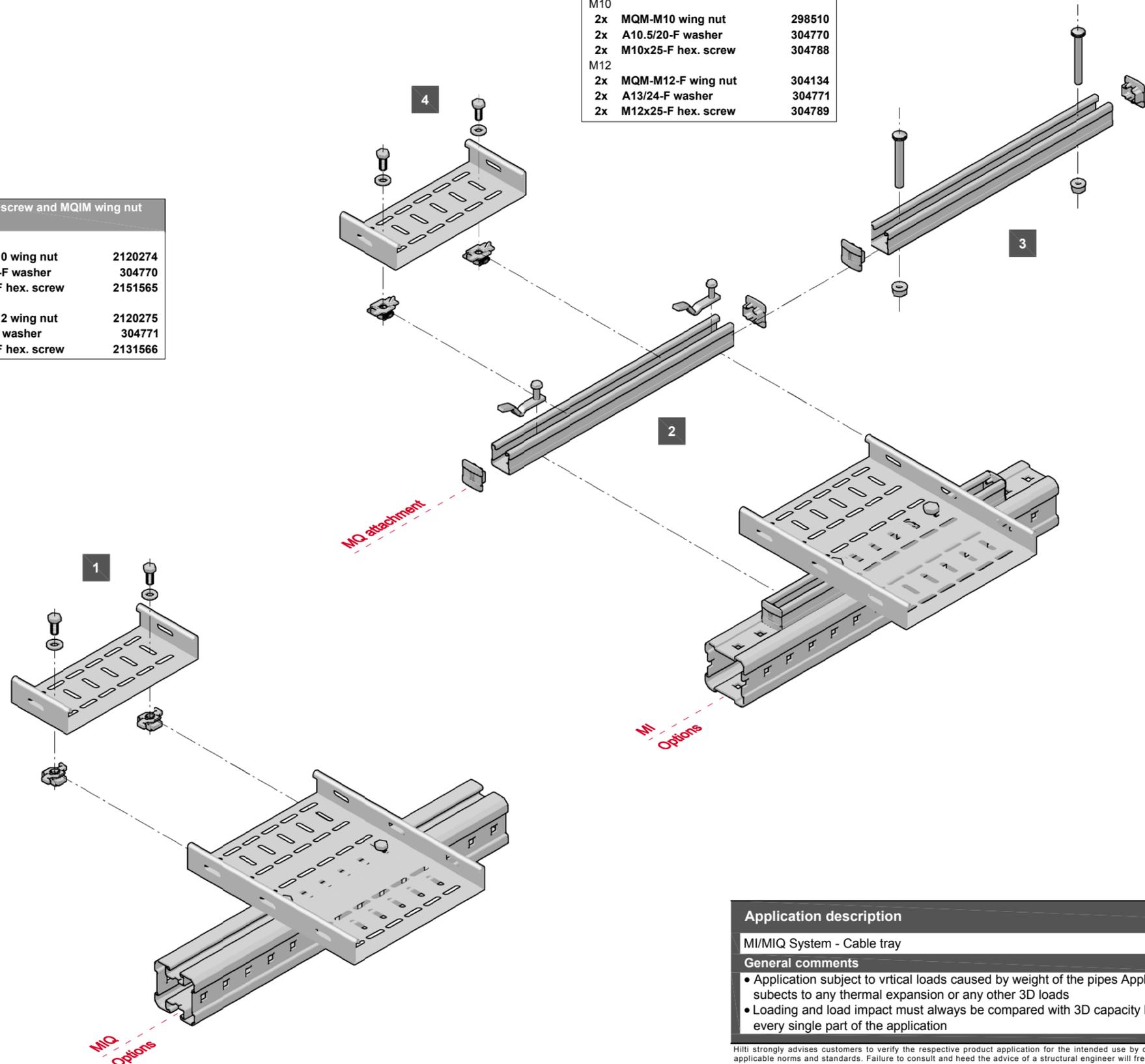
MI/MIQ - Cable Tray - Options

1 Hexagon screw and MQIM wing nut M10, M12		
M10		
2x	MQIM-M10 wing nut	2120274
2x	A10.5/20-F washer	304770
2x	M10x20-F hex. screw	2151565
M12		
2x	MQIM-M12 wing nut	2120275
2x	A13/24-F washer	304771
2x	M12x20-F hex. screw	2131566

4 Hexagon screw and MQM wing nut M8, M10, M12		
M8		
2x	MQM-M8 HDG wing nut	298500
2x	A8.4/16-F washer	304769
2x	M8x25-F hex. screw	304787
M10		
2x	MQM-M10 wing nut	298510
2x	A10.5/20-F washer	304770
2x	M10x25-F hex. screw	304788
M12		
2x	MQM-M12-F wing nut	304134
2x	A13/24-F washer	304771
2x	M12x25-F hex. screw	304789

3 MQ attachment MQ channel and screws MIA-OH		
Connector - MI-90 options		
2x	MIA-OH90 screw	304889
2x	M12-F-SL-WS 3/4" lock nut	382897
Connector - MI120 options		
2x	MIA-OH120 screw	304890
2x	M12-F-SL-WS 3/4" lock nut	382897
Piece of channel		
1x	MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
2x	MQZ-E41 plastic endcap	369685

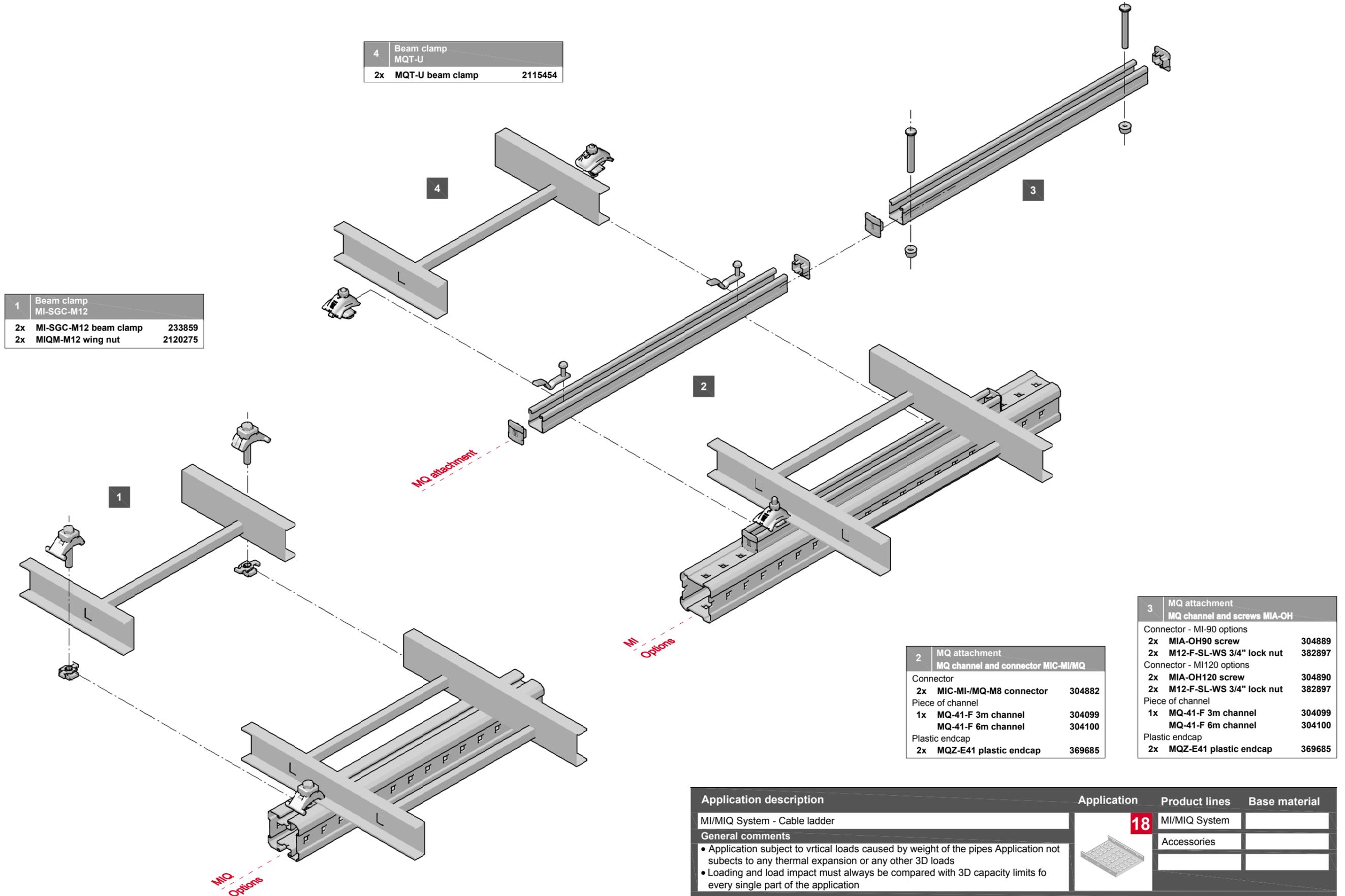
2 MQ attachment MQ channel and connector MIC-MI/MQ		
Connector		
2x	MIC-MI-MQ-M8 connector	304882
Piece of channel		
1x	MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
2x	MQZ-E41 plastic endcap	369685



Application description	Application	Product lines	Base material
MI/MIQ System - Cable tray	 18	MI/MIQ System	
General comments <ul style="list-style-type: none"> Application subject to vertical loads caused by weight of the pipes Application not subjects to any thermal expansion or any other 3D loads Loading and load impact must always be compared with 3D capacity limits for every single part of the application 		Accessories	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ - Cable Ladder - Fixed Options



1	Beam clamp MI-SGC-M12	
2x	MI-SGC-M12 beam clamp	233859
2x	MIQM-M12 wing nut	2120275

4	Beam clamp MQT-U	
2x	MQT-U beam clamp	2115454

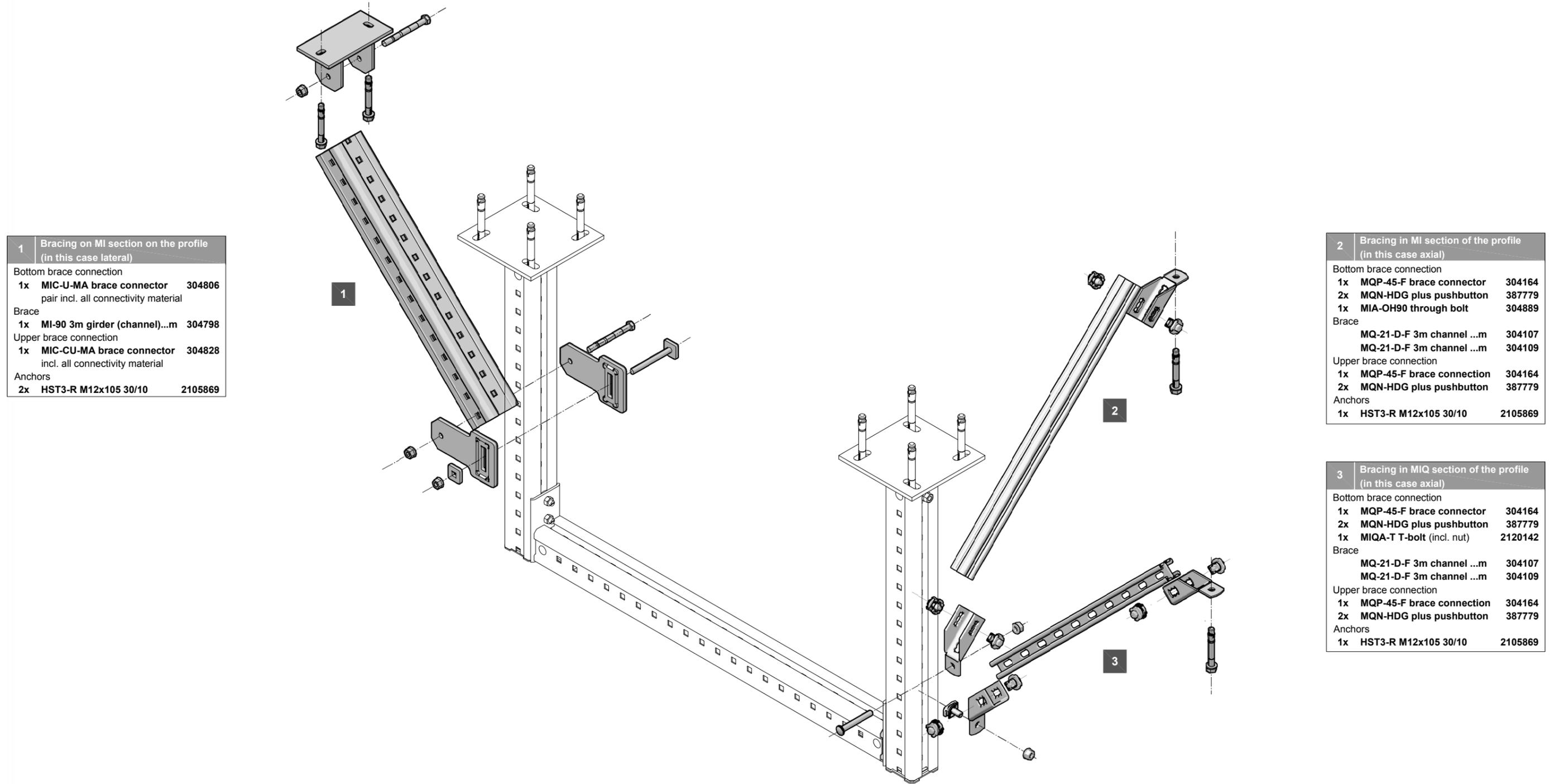
2	MQ attachment MQ channel and connector MIC-MI/MQ	
Connector		
2x	MIC-MI/MQ-M8 connector	304882
Piece of channel		
1x	MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
2x	MQZ-E41 plastic endcap	369685

3	MQ attachment MQ channel and screws MIA-OH	
Connector - MI-90 options		
2x	MIA-OH90 screw	304889
2x	M12-F-SL-WS 3/4" lock nut	382897
Connector - MI120 options		
2x	MIA-OH120 screw	304890
2x	M12-F-SL-WS 3/4" lock nut	382897
Piece of channel		
1x	MQ-41-F 3m channel	304099
	MQ-41-F 6m channel	304100
Plastic endcap		
2x	MQZ-E41 plastic endcap	369685

Application description	Application	Product lines	Base material
MI/MIQ System - Cable ladder	18	MI/MIQ System	
General comments		Accessories	
<ul style="list-style-type: none"> Application subject to vertical loads caused by weight of the pipes Application not subjects to any thermal expansion or any other 3D loads Loading and load impact must always be compared with 3D capacity limits for every single part of the application 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Trapeze On Concrete - Stiffening Options



1	Bracing on MI section on the profile (in this case lateral)	
Bottom brace connection		
1x	MIC-U-MA brace connector	304806
pair incl. all connectivity material		
Brace		
1x	MI-90 3m girder (channel)...m	304798
Upper brace connection		
1x	MIC-CU-MA brace connector	304828
incl. all connectivity material		
Anchors		
2x	HST3-R M12x105 30/10	2105869

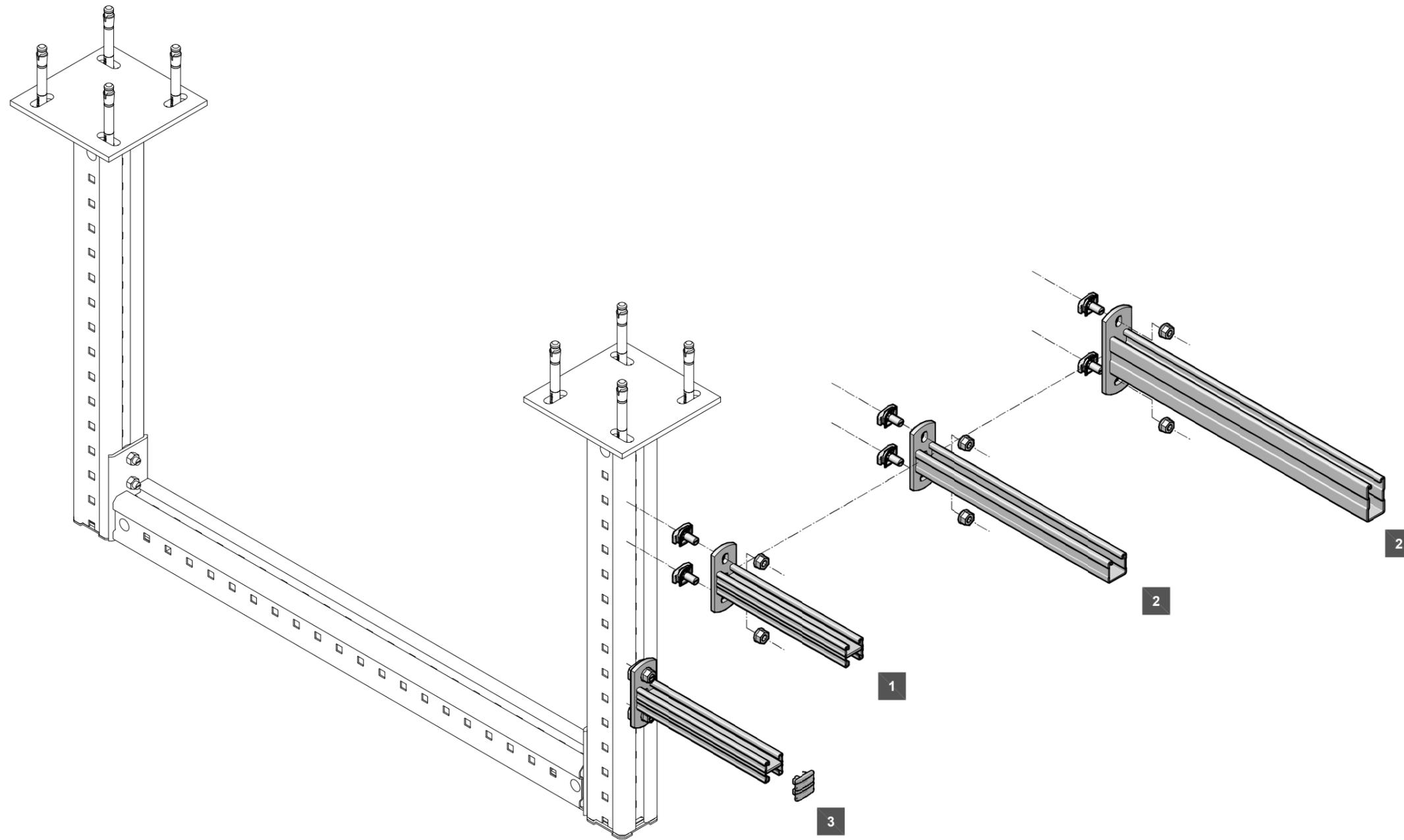
2	Bracing in MI section of the profile (in this case axial)	
Bottom brace connection		
1x	MQP-45-F brace connector	304164
2x	MQN-HDG plus pushbutton	387779
1x	MIA-OH90 through bolt	304889
Brace		
	MQ-21-D-F 3m channel ...m	304107
	MQ-21-D-F 3m channel ...m	304109
Upper brace connection		
1x	MQP-45-F brace connection	304164
2x	MQN-HDG plus pushbutton	387779
Anchors		
1x	HST3-R M12x105 30/10	2105869

3	Bracing in MIQ section of the profile (in this case axial)	
Bottom brace connection		
1x	MQP-45-F brace connector	304164
2x	MQN-HDG plus pushbutton	387779
1x	MIQA-T T-bolt (incl. nut)	2120142
Brace		
	MQ-21-D-F 3m channel ...m	304107
	MQ-21-D-F 3m channel ...m	304109
Upper brace connection		
1x	MQP-45-F brace connection	304164
2x	MQN-HDG plus pushbutton	387779
Anchors		
1x	HST3-R M12x105 30/10	2105869

Application description	Application	Product lines	Base material
MI/MIQ System - Trapeze On Concrete		1 MIQ System	Concrete
General comments		MI System	
• These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations		MQ-F System	

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

MI/MIQ System - Trapeze Frame On Concrete - MQ Compatibility Options



1 Single MQK-F brackets fixed to MIQ girder		
T-bolts		
2x	MIQA-T T bolt incl. nut	2120142
MQK-F brackets		
1x	MQK-21/300-F bracket	304113
	MQK-21/450-F bracket	304114
	MQK-41/300-F bracket	304115
	MQK-41/450-F bracket	304116
	MQK-41/600-F bracket	304117
	MQK-41/1000-F bracket	304117
	MQK-72/450-F bracket	304122
	MQK-72/600-F bracket	304123

2 Double MQK-F brackets fixed to MIQ girder		
T-bolts		
2x	MIQA-T T bolt incl. nut	2120142
MQK-F brackets		
1x	MQK-21 D/300-F bracket	304124
	MQK-21 D/450-F bracket	304125
	MQK-41 D/600-F bracket	304126
	MQK-41 D/1000-F bracket	304127

8 Plastic end caps for MQ channels	
Plastic end caps MQZ-E	
MQZ-E21 end cap	370598
MQZ-E31 end cap	369686
MQZ-E41 end cap	369685

Application description	Application	Product lines	Base material
MIQ System - Trapeze Frame	 1	MIQ System	
General comments		MQ-F System	
<ul style="list-style-type: none"> • These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations 			

Hilti strongly advises customers to verify the respective product application for the intended use by consulting a structural engineer and making the necessary calculations to ensure compliance with the applicable norms and standards. Failure to consult and heed the advice of a structural engineer will free Hilti from any liability. It is essential that the product is used strictly in accordance with the applicable Hilti instructions for use, within the application limits specified in the Hilti technical data sheets, technical specifications and supporting product literature, and that the relevant application limits are not exceeded at any time. All rights reserved by Hilti Corporation. Duplication, utilization and/or publication of drawings contained in this manual are not permitted unless expressly agreed by Hilti Corporation.

Hilti. Outperform. Outlast.

Hilti Corporation | 9494 Schaan | Liechtenstein | P +423 234 2111 | www.facebook.com/hiltigroup | www.hilti.com