



**Installation Technical
Manual**

Typical Applications

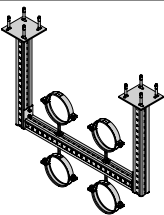
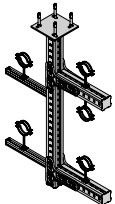
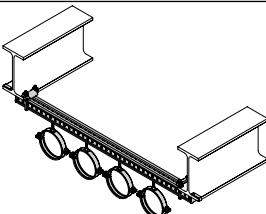
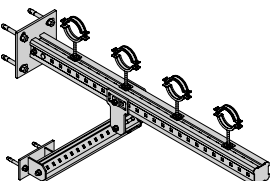
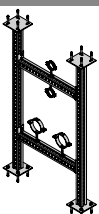
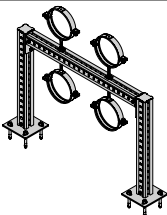
**Typical Product Line
Applications**

MIQ System

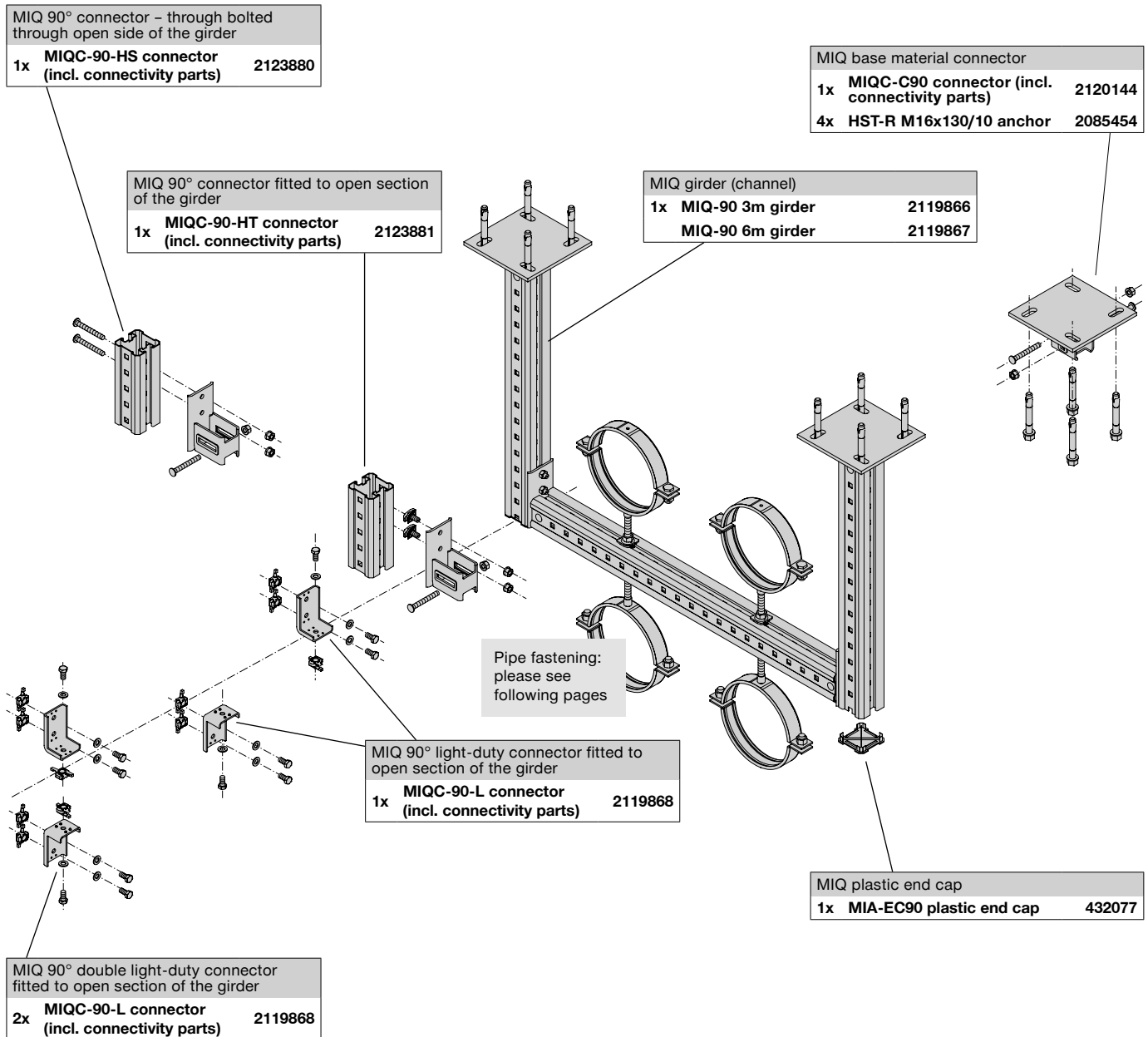


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Contents and overview of this manual

Application	Page
Ceiling applications	
1  MIQ trapeze frame	5
2  MIQ ceiling tree	21
3  MIQ head rail	27
Wall applications	
4  MIQ supported bracket	29
Ceiling-floor applications	
5  MIQ ladder	31
6  MIQ bracket tree	33
Floor applications	
7  MIQ goal post	37

Trapeze Frame On Concrete - Options



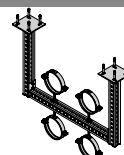
Application description

Trapeze frame

General comments

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

Application



1

Product lines

MIQ System

Anchors

Accessories

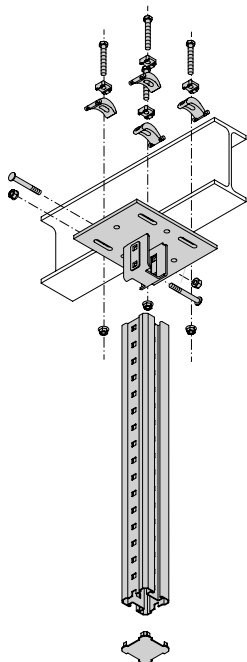
Base material

Concrete

Trapeze Frame On Steel - Options

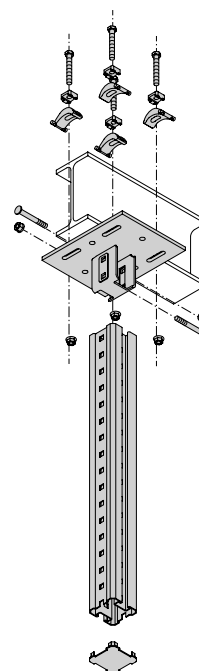
Connection of the vertical uprights to flanges of steel beam

Steel beam parallel to trapeze



MIQ vertical upright connection to flange of steel beam	
Connector for flange width 75-165mm	
1x MIQC-S90-AP connector	2120271
Connector for flange width 165-235mm	
1x MIQC-S90-BP connector	2120273
Beam clamps	
4x MI-SGC M12 beam clamp	233859
Girder (channel)	
1x MIQ-90 3m girder	2119866
Plastic end cap	
1x MIA-EC90 plastic end cap	432077

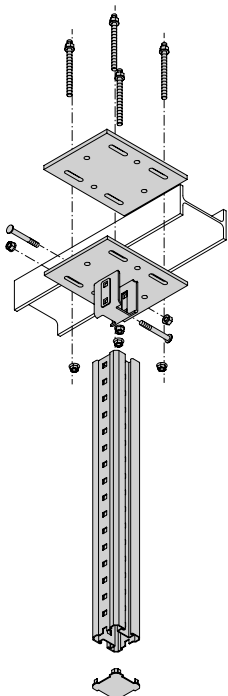
Steel beam perpendicular to trapeze



MIQ vertical upright connection to flange of steel beam	
Connector for flange width 75-165mm	
1x MIQC-S90-AC connector	2120270
Connector for flange width 165-235mm	
1x MIQC-S90-BC connector	2120272
Beam clamps	
4x MI-SGC M12 beam clamp	233859
Girder (channel)	
1x MIQ-90 3m girder	2119866
Plastic end cap	
1x MIA-EC90 plastic end cap	432077

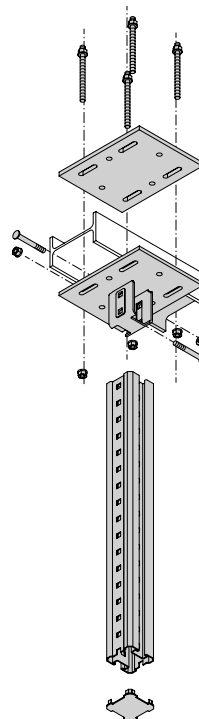
Connection of the vertical uprights to web of steel beam by boxing the profile

Steel beam parallel to trapeze



MIQ vertical upright connection to web of steel beam	
Connector for web width 75-165mm	
1x MIQC-S90-AP connector	2120271
1x MIQB-SA back plate	2123565
Connector for web width 165-235mm	
1x MIQC-S90-BP connector	2120273
1x MIQB-SB back plate	2123566
Through bolts	
4x AM12x1000-8.8 HDG threaded rod	419103
Securing nuts	
4x M12-F-SL WS3/4 self-locking nut	382897
Girder (channel)	
1x MIQ-90 3m girder	2119866
Plastic end cap	
1x MIA-EC90 plastic end cap	432077

Steel beam perpendicular to trapeze



MIQ vertical upright connection to web of steel beam	
Connector for web width 75-165mm	
1x MIQC-S90-AC connector	2120270
1x MIQB-SA back plate	2123565
Connector for web width 165-235mm	
1x MIQC-S90-BC connector	2120272
1x MIQB-SB back plate	2123566
Through bolts	
4x AM12x1000-8.8 HDG threaded rod	419103
Securing nuts	
4x M12-F-SL WS3/4 self-locking nut	382897
Girder (channel)	
1x MIQ-90 3m girder	2119866
Plastic end cap	
1x MIA-EC90 plastic end cap	432077

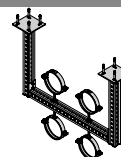
Application description

Trapeze frame

General comments

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Application



Product lines

MIQ System

MI System clamps

Accessories

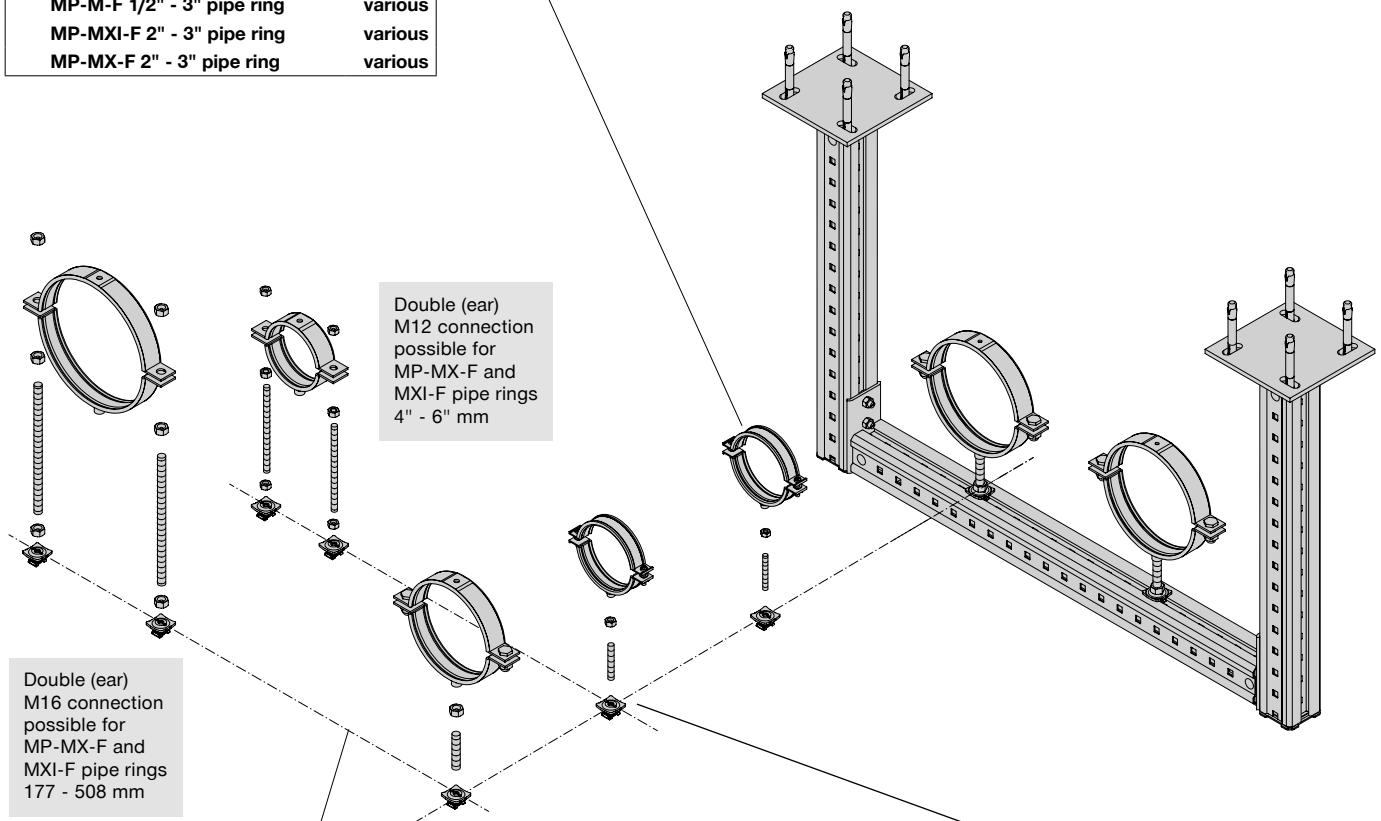
Base material

Steel

Trapeze Frame - Options

Fixed pipe ring connections (no expansion)

MIQ pipe ring connection for M10		
Saddle nut		
1x MQA-M10-F saddle nut		304139
Hexagonal nut		
1x M10-F hex nut		304765
Threaded rod		
1x AM10x1000-F 4.8 t-rod		304773
Pipe rings for M10		
1x MP-MI-F 1/2" - 3" pipe ring	various	
MP-M-F 1/2" - 3" pipe ring	various	
MP-MXI-F 2" - 3" pipe ring	various	
MP-MX-F 2" - 3" pipe ring	various	



MIQ pipe ring connection for M16		
Saddle nut		
1x MQA-M16-F saddle nut		304141
Hexagonal nut		
1x M16-F hex nut		304767
Threaded rod		
1x AM16x1000-F 4.8 t-rod		304776
Pipe rings for M16		
1x MP-MXI-F 4" - 508 mm pipe ring	various	
MP-MX-F 4" - 508 mm pipe ring	various	

MIQ pipe ring connection for M12		
Saddle nut		
1x MQA-M12-F saddle nut		304140
Hexagonal nut		
1x M12-F hex nut		304766
Threaded rod		
1x AM12x1000-F 4.8 t-rod		304774
Pipe rings for M12		
1x MP-MXI-F 2" - 3" pipe ring	various	
MP-MX-F 2" - 3" pipe ring	various	

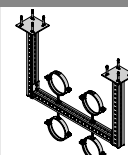
Application description

Trapeze frame

General comments

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Application



1

Product lines

MIQ System

Pipe rings

F - Accessories

Base material

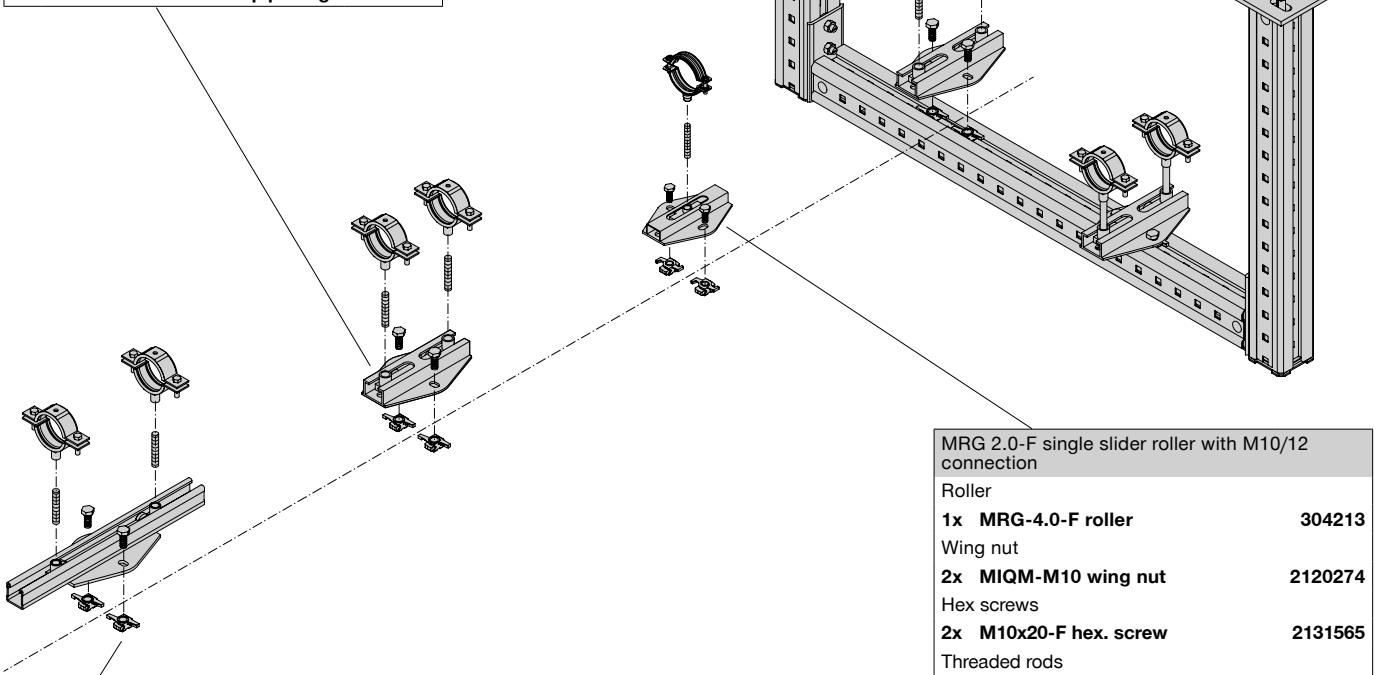
Concrete

Steel

Trapeze Frame - Options

Expansion pipe ring connections

MRG-D6-F double slider roller with M12/16 connection		
Roller		
1x MRG-D6-F roller		304214
Wing nut		
2x MIQM-M12 wing nut		2120275
Hex screws		
2x M12x20-F hex. screw		2131566
Threaded rods		
2x AM12x1000-F 4.8 t-rod		304774
AM16x1000-F 4.8 t-rod		304776
Pipe rings for M12		
2x MP-MXI-F 2" - 3" pipe ring		various
MP-MX-F 2" - 3" pipe ring		various
Pipe rings for M10 and M12		
2x MP-MXI-F 4" - 508 mm pipe ring		various
MP-MX-F 4" - 508 mm pipe ring		various



MRG-D225-F double slider roller with M12/16 connection		
Roller		
1x MRG-D225-F roller		specials
The rest of the BOM the same as in case of MRG-D6-F		

MRG 2.0-F single slider roller with M10/12 connection		
Roller		
1x MRG-4.0-F roller		304213
Wing nut		
2x MIQM-M10 wing nut		2120274
Hex screws		
2x M10x20-F hex. screw		2131565
Threaded rods		
1x AM10x1000-F 4.8 t-rod		304773
AM12x1000-F 4.8 t-rod		304774
Pipe rings for M10		
1x MP-MI-F 1/2" - 3" pipe ring		various
MP-M-F 1/2" - 3" pipe ring		various
Pipe rings for M10 and M12		
1x MP-MXI-F 2" - 3" pipe ring		various
MP-MX-F 2" - 3" pipe ring		various

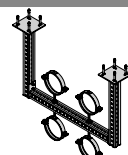
Application description

Trapeze frame

General comments

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Application



1

Product lines

MIQ System

Rollers - F

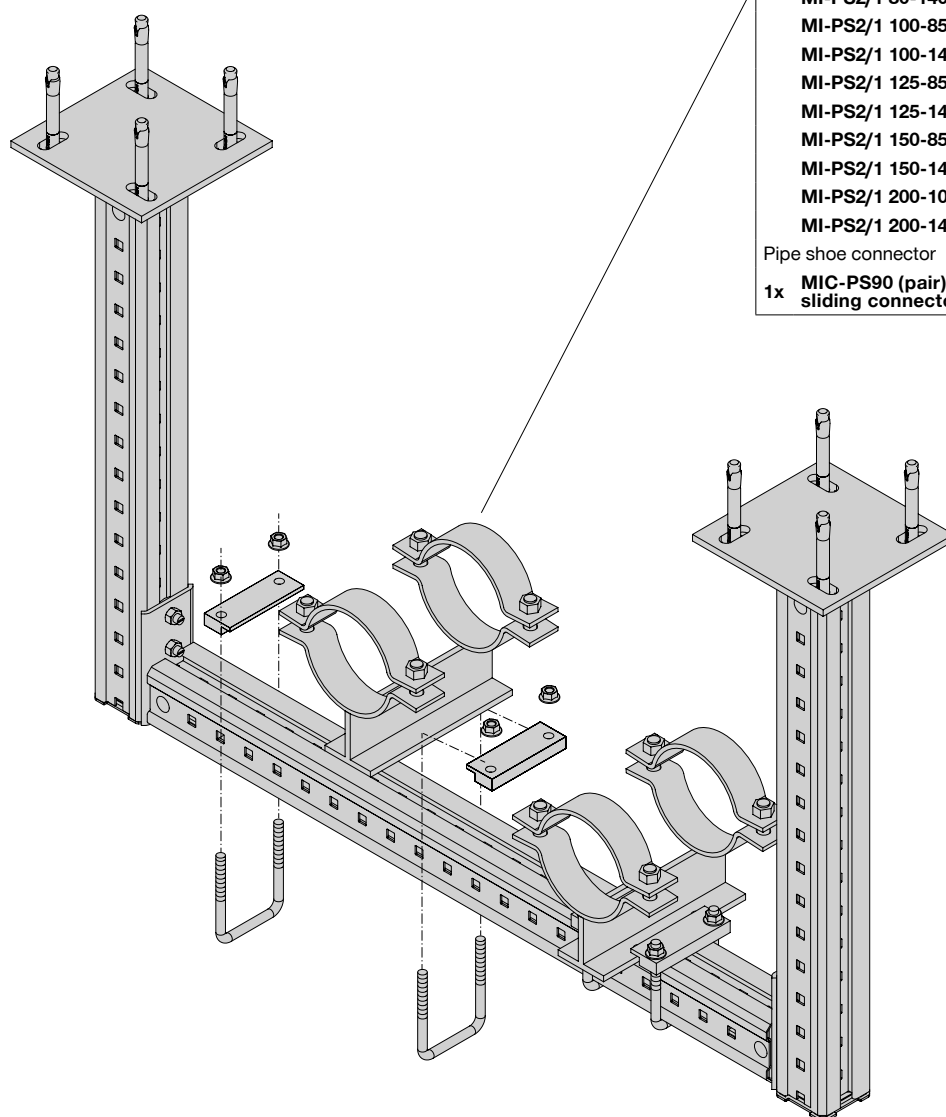
F - Accessories

Base material

Concrete

Trapeze Frame - Options

Expansion pipe shoe connection



Fastening pipe shoes on MIQ girder (channel)

Pipe shoe

1x	MI-PS2/1 25-85	304852
	MI-PS2/1 25-140	286965
	MI-PS2/1 40-85	304853
	MI-PS2/1 40-140	286966
	MI-PS2/1 50-85	304854
	MI-PS2/1 50-140	286967
	MI-PS2/1 65-85	304855
	MI-PS2/1 65-140	286968
	MI-PS2/1 80-85	304856
	MI-PS2/1 80-140	286969
	MI-PS2/1 100-85	304857
	MI-PS2/1 100-140	286970
	MI-PS2/1 125-85	304858
	MI-PS2/1 125-140	286971
	MI-PS2/1 150-85	304859
	MI-PS2/1 150-140	286972
	MI-PS2/1 200-107	304860
	MI-PS2/1 200-142	286973

Pipe shoe connector

1x	MIC-PS90 (pair) pipe shoe sliding connector	304838
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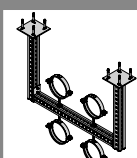
Application description

Trapeze frame

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Application



1

Product lines

MIQ System

MI System

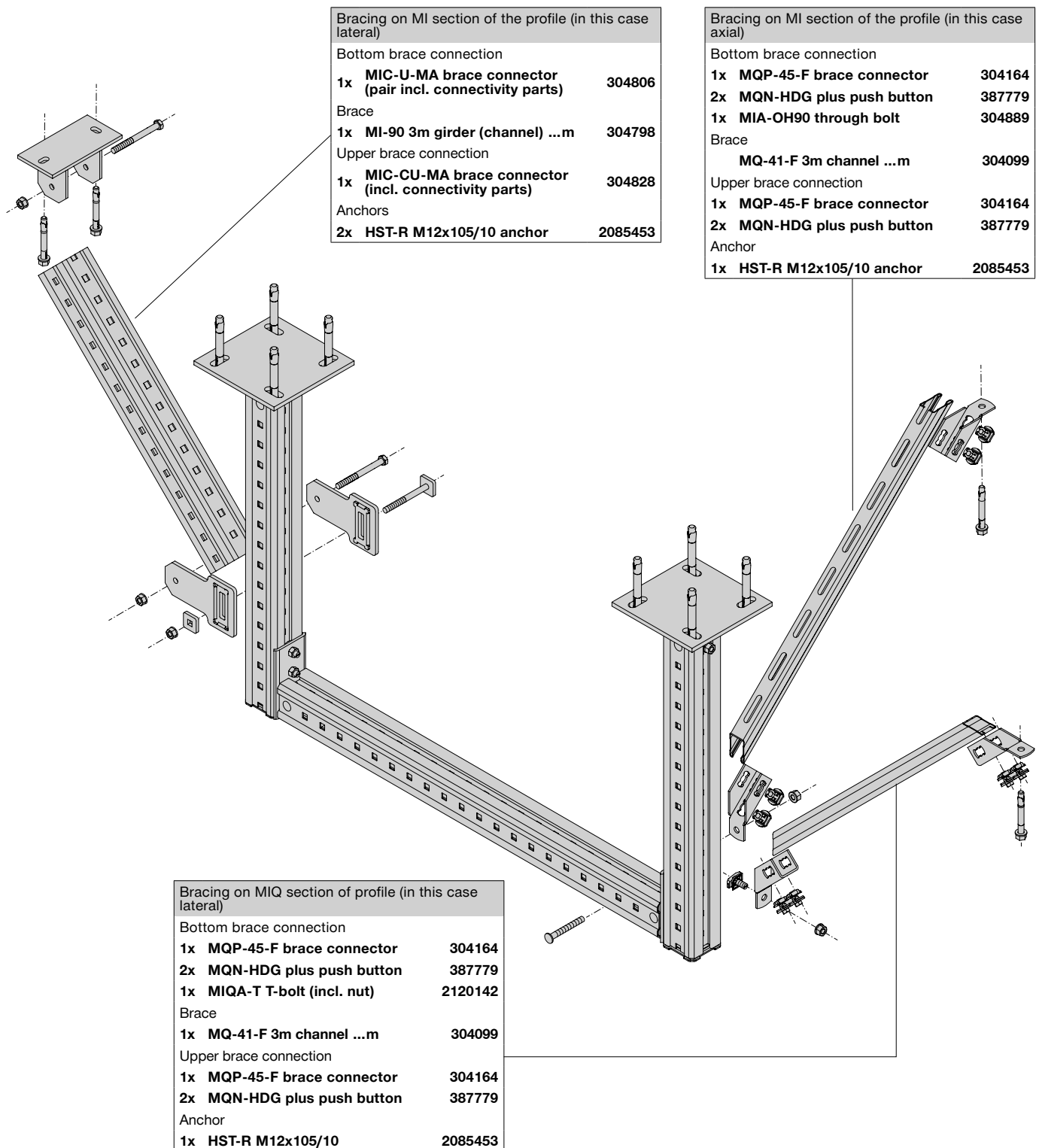
Pipe shoes

Base material

Concrete

Trapeze Frame On Concrete - Options

Stiffening options



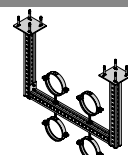
Application description

Trapeze frame

General comments

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Application



Product lines

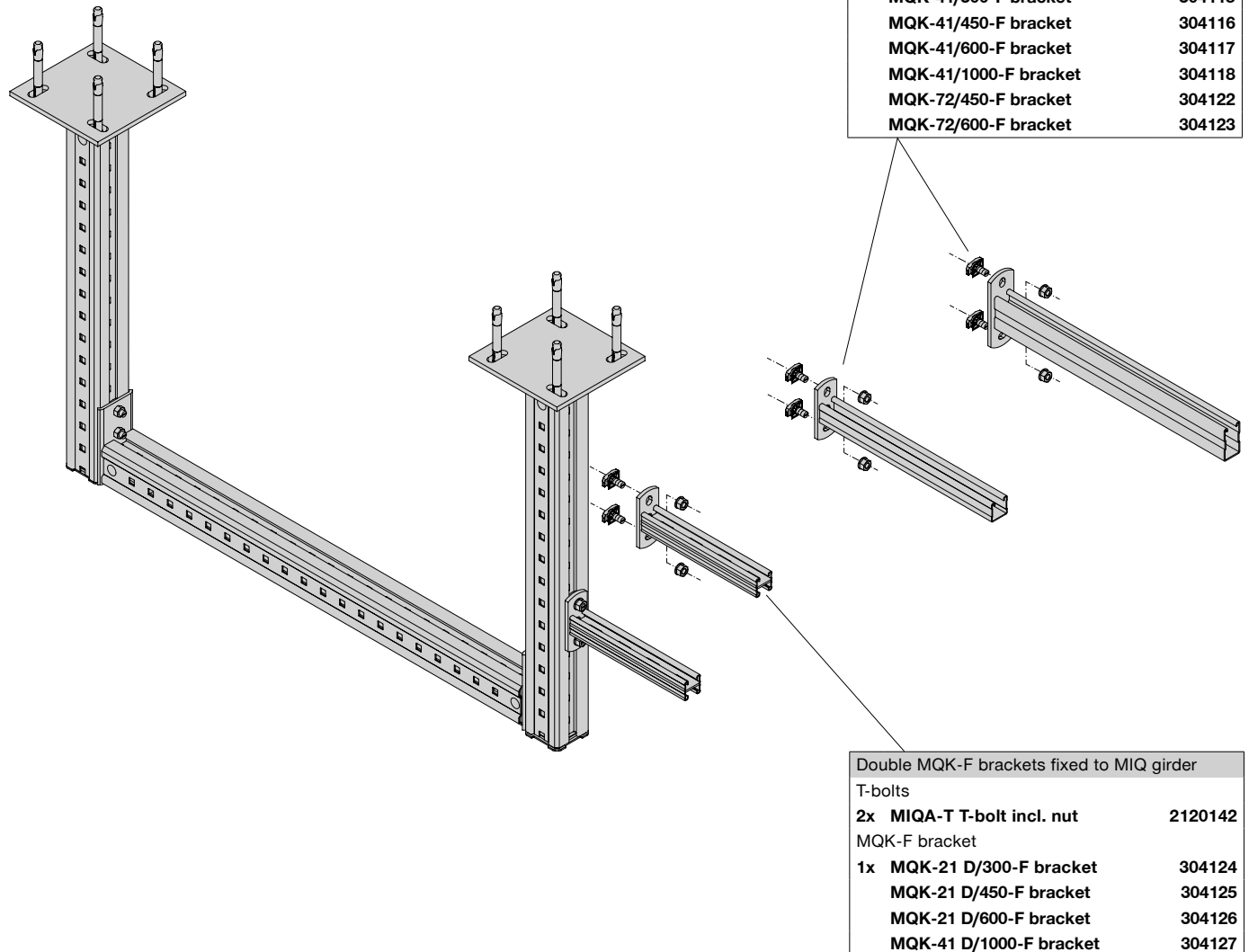
MIQ System
MQ-F System
MI System

Base material

Concrete

Trapeze Frame - Options

MIQ / MQ System partial system compatibility



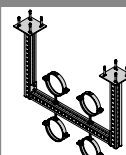
Application description

Trapeze frame

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Application



Product lines

MIQ System

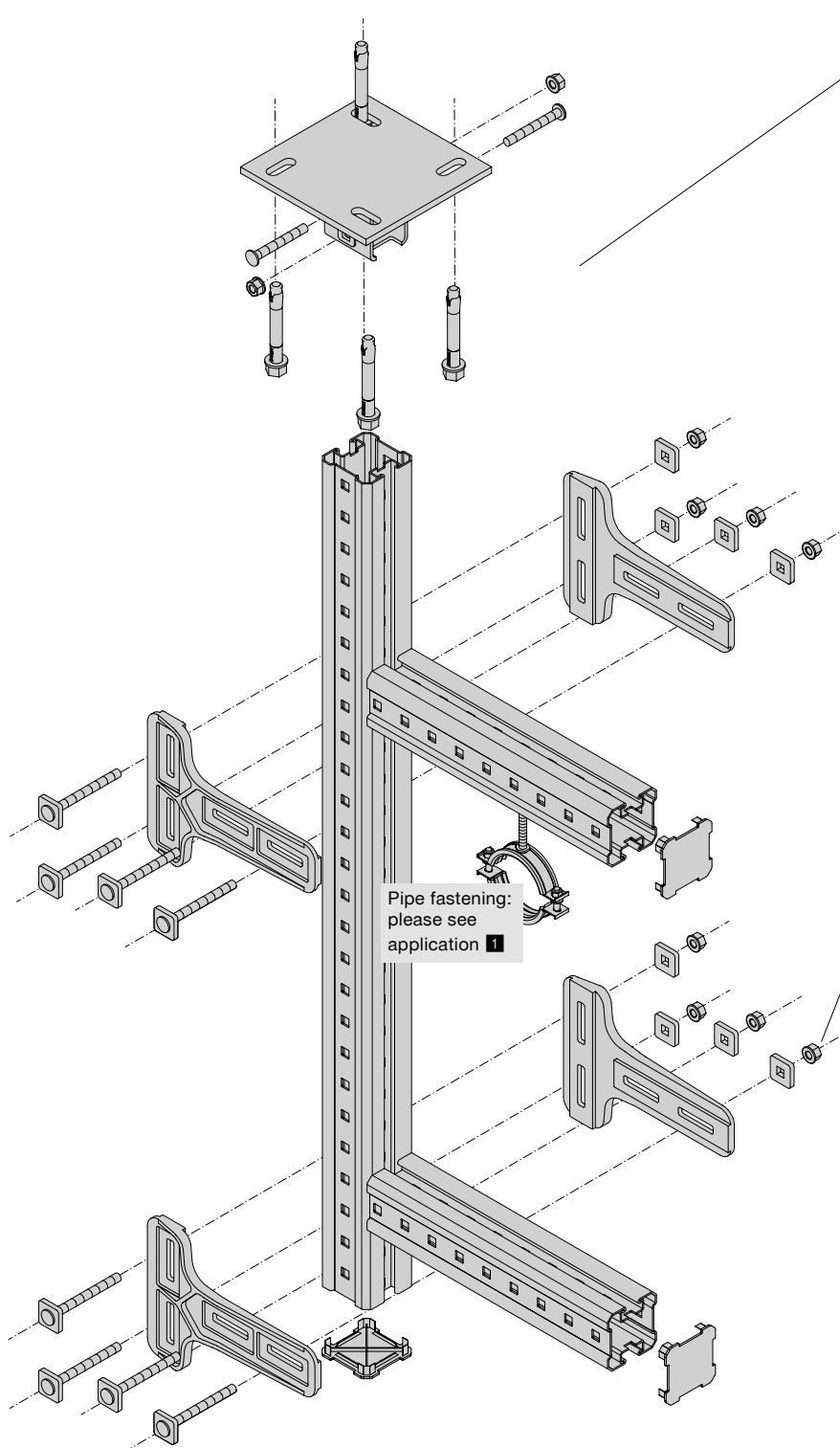
MQ-F System

Base material

Concrete

Ceiling Tree On Concrete - Options

MIQ ceiling tree with MIQ brackets



MIQ ceiling tree with MIQ brackets BOM for entire application without pipe ring connections		
Base material connector		
1x	MIQC-C90 base connector (incl. connectivity parts)	2120144
Anchors		
4x	HST-R M16x130/10	2085454
Vertical upright		
1x	MIQ-90 3m...m girder	2119866
Plastic end cap for MIQ girder		
3x	MIA-EC90 plastic end cap	432077
Bracket connectors		
2x	MIC-90-LH bracket connector (pair) without screws	2048107
Connectivity parts for bracket connector		
8x	MIA-EH90 through bolt	304887
8x	MIA-TP serrated plate	305707
8x	M12-F-SL-WS 3/4" lock nut	382897
Plastic end cap		
	MIA-EC90 plastic end cap	432077

Bracket connector BOM for 1 connection		
Bracket connectors		
1x	MIC-90-LH bracket connector (pair) without screws	2048107
Connectivity parts for bracket connector		
4x	MIA-EH90 through bolt	304887
4x	MIA-TP serrated plate	305707
4x	M12-F-SL-WS 3/4" lock nut	382897

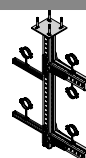
Application description

Ceiling tree

General comments

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Application



2

Product lines

MIQ System

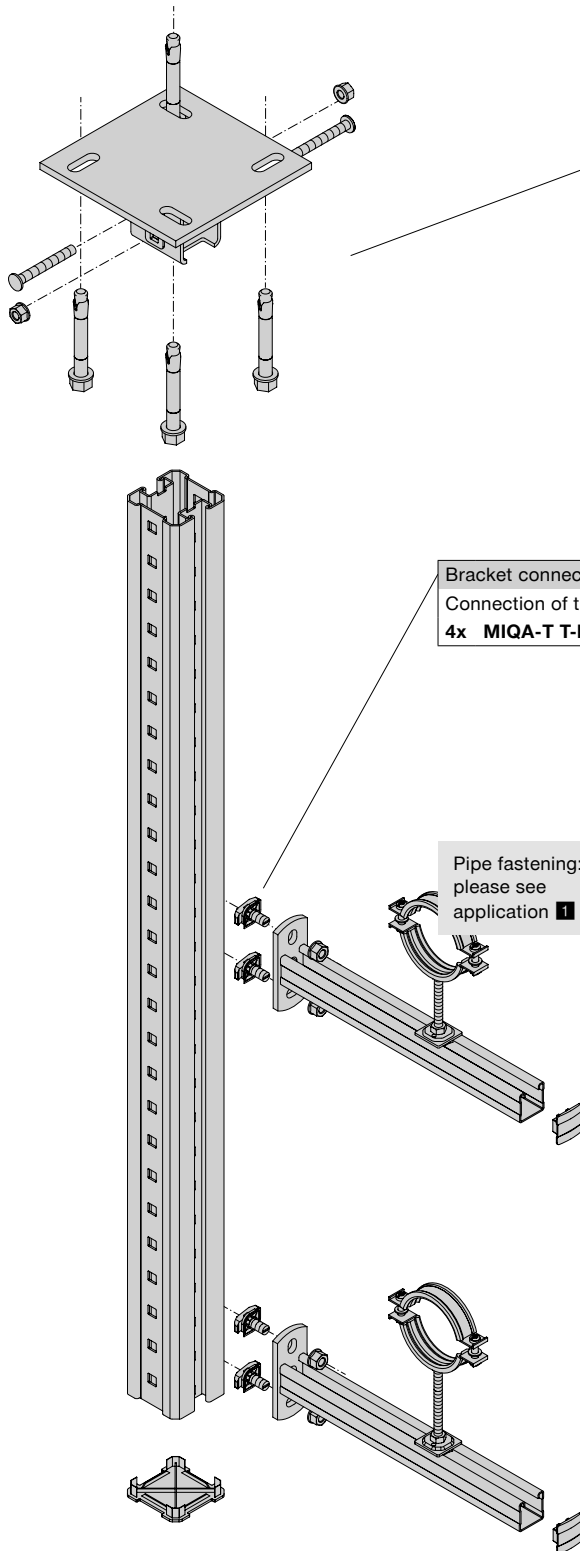
MI System

Base material

Concrete

Ceiling Tree On Concrete - Options

MIQ ceiling tree with MQK brackets



Bracket connector BOM for 1 connection
Connection of the bracket to vertical upright
4x MIQA-T T-bolt incl. nut 2120142

Pipe fastening:
please see
application 1

MIQ ceiling tree with MQK brackets BOM for entire application without pipe ring connections		
Base material connector		
1x	MIQC-C90 base connector (incl. connectivity parts)	2120144
Anchors		
4x	HST-R M16x130/10	2085454
Vertical upright		
1x	MIQ-90 3m...m girder	2119866
Plastic end cap for MIQ girder		
1x	MIA-EC90 plastic end cap	432077
Brackets		
2x	MQK-21/300-F bracket	304113
	MQK-21/450-F	304114
	MQK-41/300-F	304115
	MQK-41/450-F	304116
	MQK-41/600-F	304117
	MQK-41/1000-F	304118
	MQK-72/450-F	304122
	MQK-72/600-F	304123
	MQK-21 D/300-F	304124
	MQK-21 D/450-F	304125
	MQK-21 D/600-F	304126
	MQK-41 D/1000-F	304127
Plastic end cap for 21 mm format		
2x	MQZ-E21	370598
Plastic end cap for 41 mm format		
2x	MQZ-E41	369685
Plastic end cap for 72 mm format		
2x	MQZ-E41	369685
2x	MQZ-E31	369686
Plastic end cap for 21D mm format		
4x	MQZ-E21	370598
Plastic end cap for 41D mm format		
4x	MQZ-E41	369685
Connection of the bracket in vertical upright		
4x	MIQA-T T-bolt incl. nut	2120142

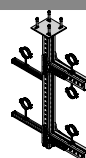
Application description

Ceiling tree

General comments

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Application



2

Product lines

MIQ System

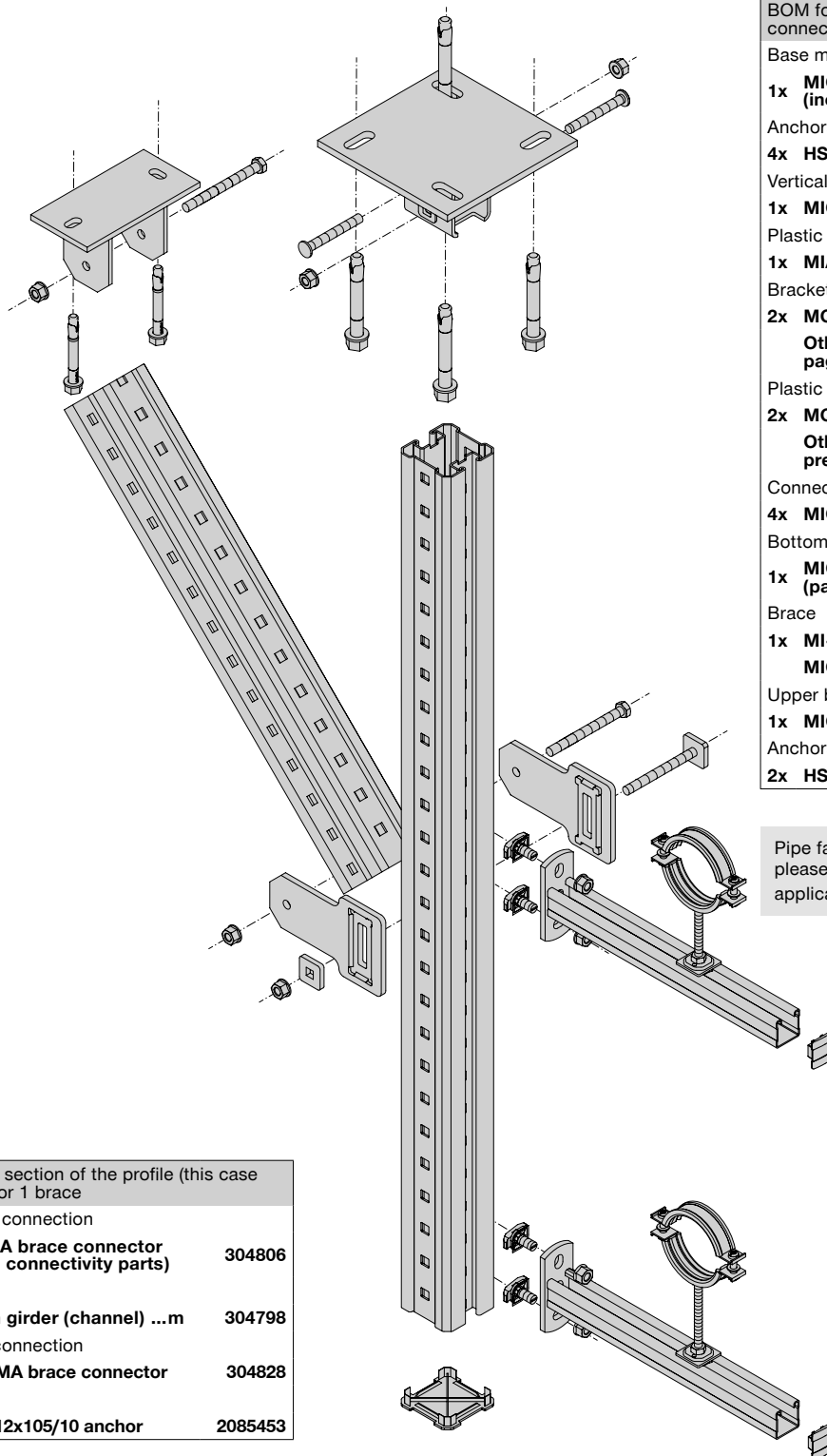
MQ-F System

Base material

Concrete

Ceiling Tree On Concrete - Options

MIQ ceiling tree – stiffening option using MIQ /MI girder



MIQ ceiling tree with MQK brackets BOM for entire application without pipe ring connections		
Base material connector		
1x	MIQC-C90 base connector (incl. connectivity parts)	2120144
Anchors		
4x	HST-R M16x130/10 anchor	2085454
Vertical upright		
1x	MIQ-90 3m...m girder	2119866
Plastic end cap for MIQ girder		
1x	MIA-EC90 plastic end cap	432077
Brackets		
2x	MQK-41/600-F	304117
Other brackets on previous pages		
Plastic end cap for 41 mm format		
2x	MQZ-E41	369685
Other plastic end caps on previous pages		
Connection of the bracket to vertical upright		
4x	MIQA-T T-bolt incl. nut	2120142
Bottom brace connection		
1x	MIC-U-MA brace connector (pair incl. connectivity parts)	304806
Brace		
1x	MI-90 3m girder (channel) ...m	304798
	MIQ-90 3m...m girder	2119866
Upper brace connection		
1x	MIC-CU-MA brace connector	304828
Anchors		
2x	HST-R M12x105/10 anchor	2085453

Pipe fastening:
please see
application 1

Bracing on MI section of the profile (this case lateral) BOM for 1 brace		
Bottom brace connection		
1x	MIC-U-MA brace connector (pair incl. connectivity parts)	304806
Brace		
1x	MI-90 3m girder (channel) ...m	304798
Upper brace connection		
1x	MIC-CU-MA brace connector	304828
Anchors		
2x	HST-R M12x105/10 anchor	2085453

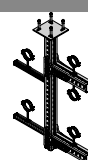
Application description

Ceiling tree

General comments

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Application



2

Product lines

MIQ System

MQ-F System

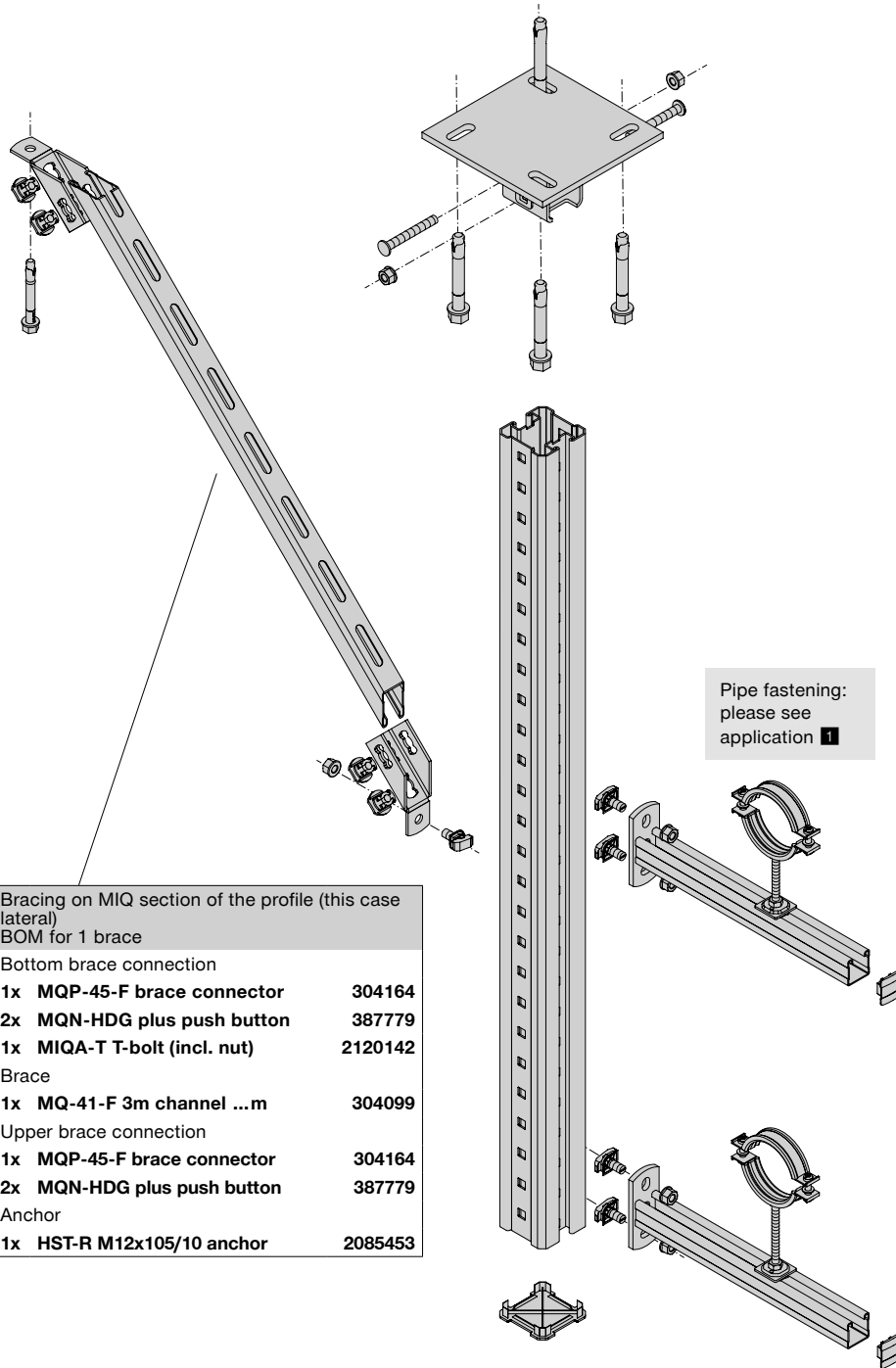
MI System

Base material

Concrete

Ceiling Tree On Concrete - Options

MIQ ceiling tree – stiffening option using MQ channel



Bracing on MIQ section of the profile (this case lateral)
BOM for 1 brace

Bottom brace connection	
1x MQP-45-F brace connector	304164
2x MQN-HDG plus push button	387779
1x MIQA-T T-bolt (incl. nut)	2120142
Brace	
1x MQ-41-F 3m channel ...m	304099
Upper brace connection	
1x MQP-45-F brace connector	304164
2x MQN-HDG plus push button	387779
Anchor	
1x HST-R M12x105/10 anchor	2085453

Pipe fastening:
please see
application 1

MIQ ceiling tree with MQK brackets BOM for entire application without pipe ring connections		
Base material connector		
1x MIQC-C90 base connector (incl. connectivity parts)		2120144
Anchors		
4x HST-R M16x130/10 anchor		2085454
Vertical upright		
1x MIQ-90 3m...m girder		2119866
Plastic end cap for MIQ girder		
1x MIA-EC90 plastic end cap		432077
Brackets		
2x MQK-41/600-F		304117
Other brackets on previous pages		
Plastic end cap for 41 mm format		
2x MQZ-E41		369685
Other plastic end caps on previous pages		
Connection of the bracket to vertical upright		
4x MIQA-T T-bolt incl. nut		2120142
Bottom brace connection		
1x MQP-45-F brace connector		304164
2x MQN-HDG plus push button		387779
1x MIQA-T T-bolt (incl. nut)		2120142
Brace		
1x MQ-41-F 3m channel ...m		304099
Upper brace connection		
1x MQP-45-F brace connector		304164
2x MQN-HDG plus push button		387779
Anchors		
1x HST-R M12x105/10 anchor		2085453

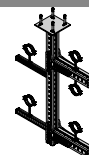
Application description

Ceiling tree

General comments

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Application



2

Product lines

MIQ System

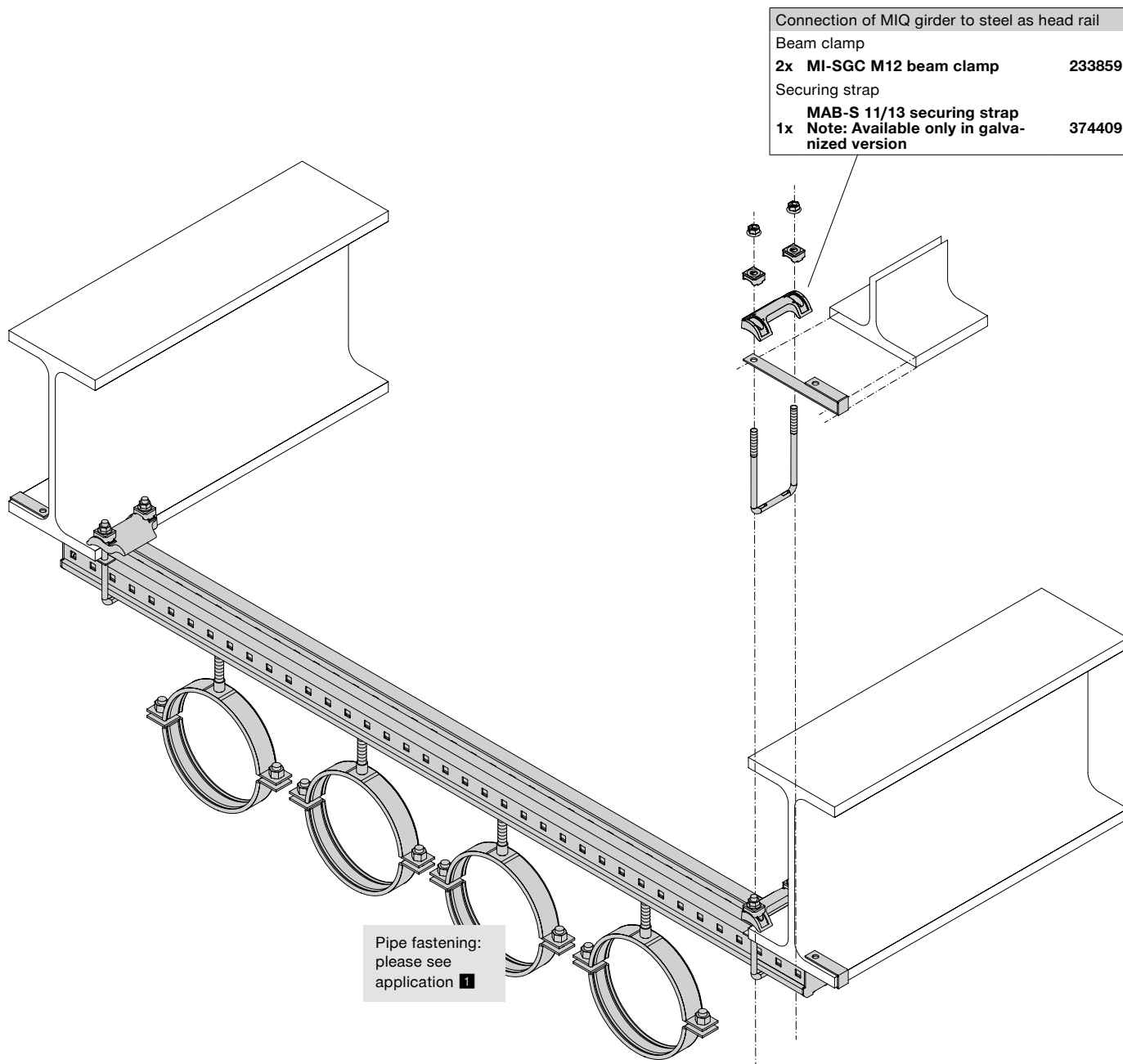
MQ-F System

Base material

Concrete

Head Rail On Steel – Options

MIQ girder fixed to steel using MI System beam clamps



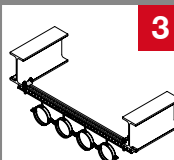
Application description

Head rail

General comments

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Application



3

Product lines

MIQ System

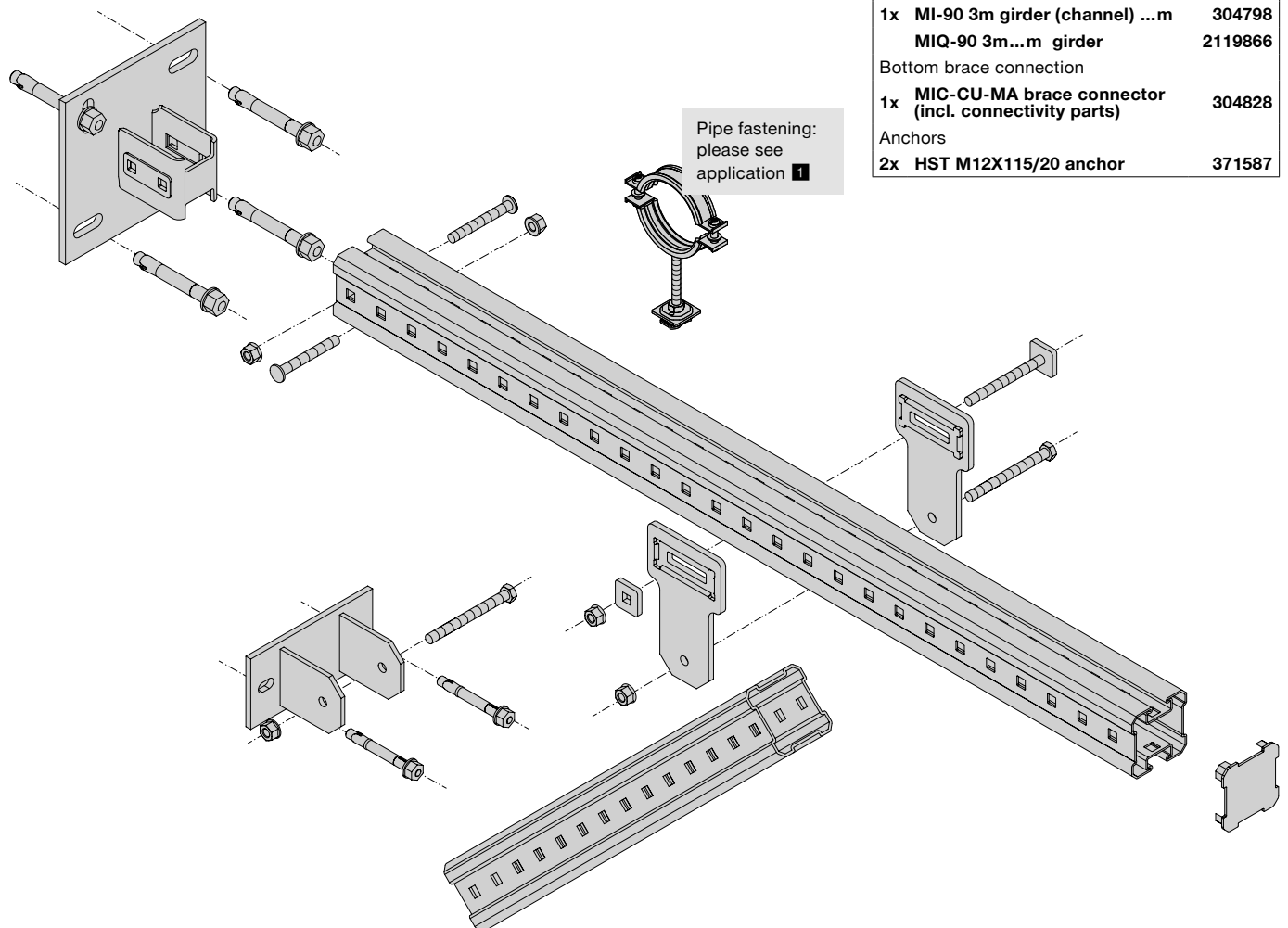
MI System

Base material

Steel

Supported Bracket On Concrete – Options

MIQ supported bracket – stiffening option using MIQ girder



MIQ supported bracket with brace made of MIQ girder BOM for entire application without pipe ring connections		
Base material connector		
1x	MIQC-C90 base connector (incl. connectivity parts)	2120144
Anchors		
4x	HST-R M16x130/10 anchor	2085454
Horizontal girder		
1x	MIQ-90 3m...m girder	2119866
Plastic end cap for MIQ girder		
1x	MIA-EC90 plastic end cap	432077
Upper brace connection		
1x	MIC-U-MA brace connector (pair incl. connectivity parts)	304806
Brace		
1x	MI-90 3m girder (channel) ...m	304798
	MIQ-90 3m...m girder	2119866
Bottom brace connection		
1x	MIC-CU-MA brace connector (incl. connectivity parts)	304828
Anchors		
2x	HST M12X115/20 anchor	371587

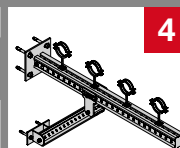
Application description

Supported bracket

General comments

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

Application



Product lines

MIQ System

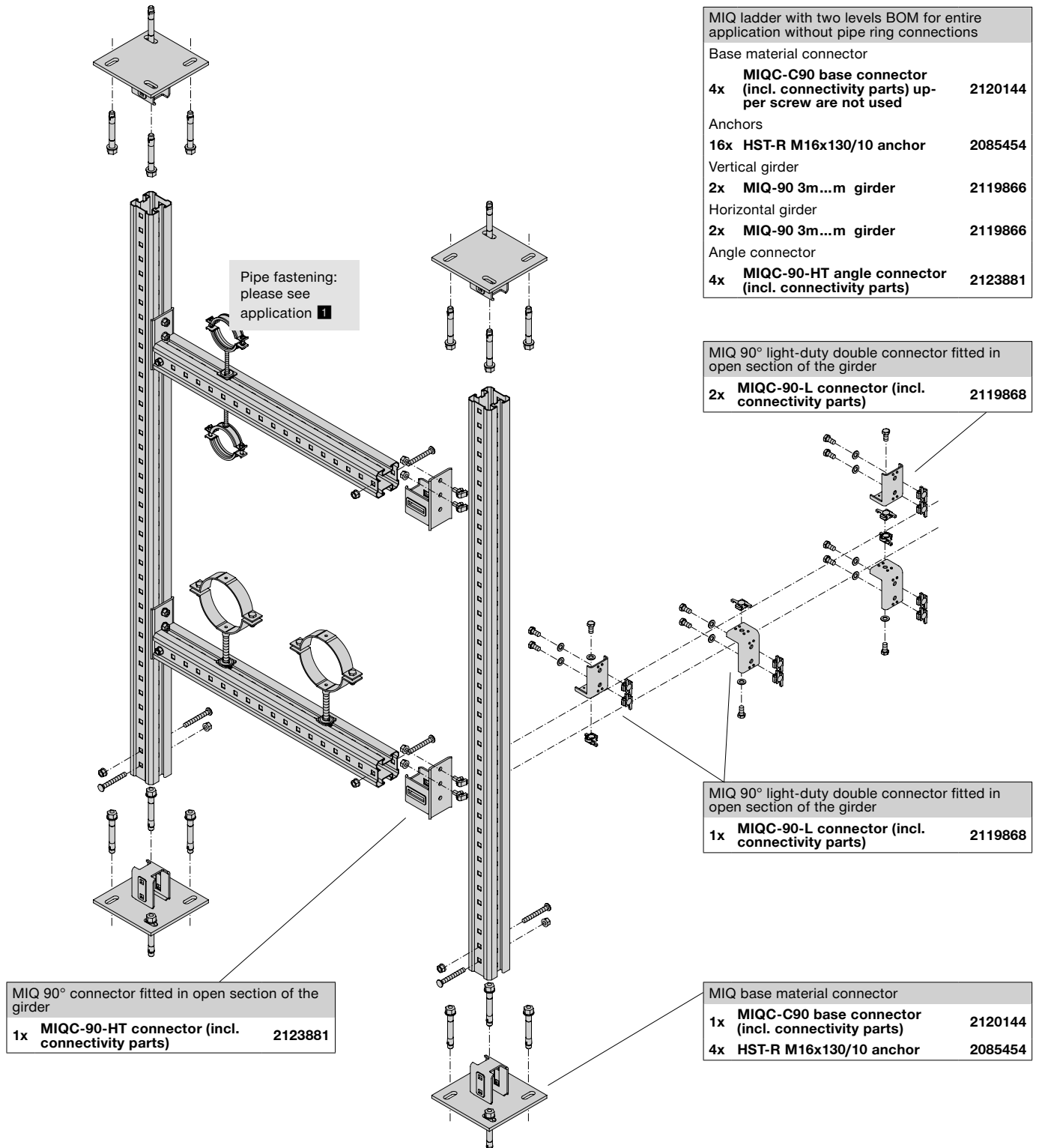
MI System

Base material

Concrete

Ladder On Concrete - Options

MIQ ladder



Application description

Ladder

General comments

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

Application



5

Product lines

MIQ System

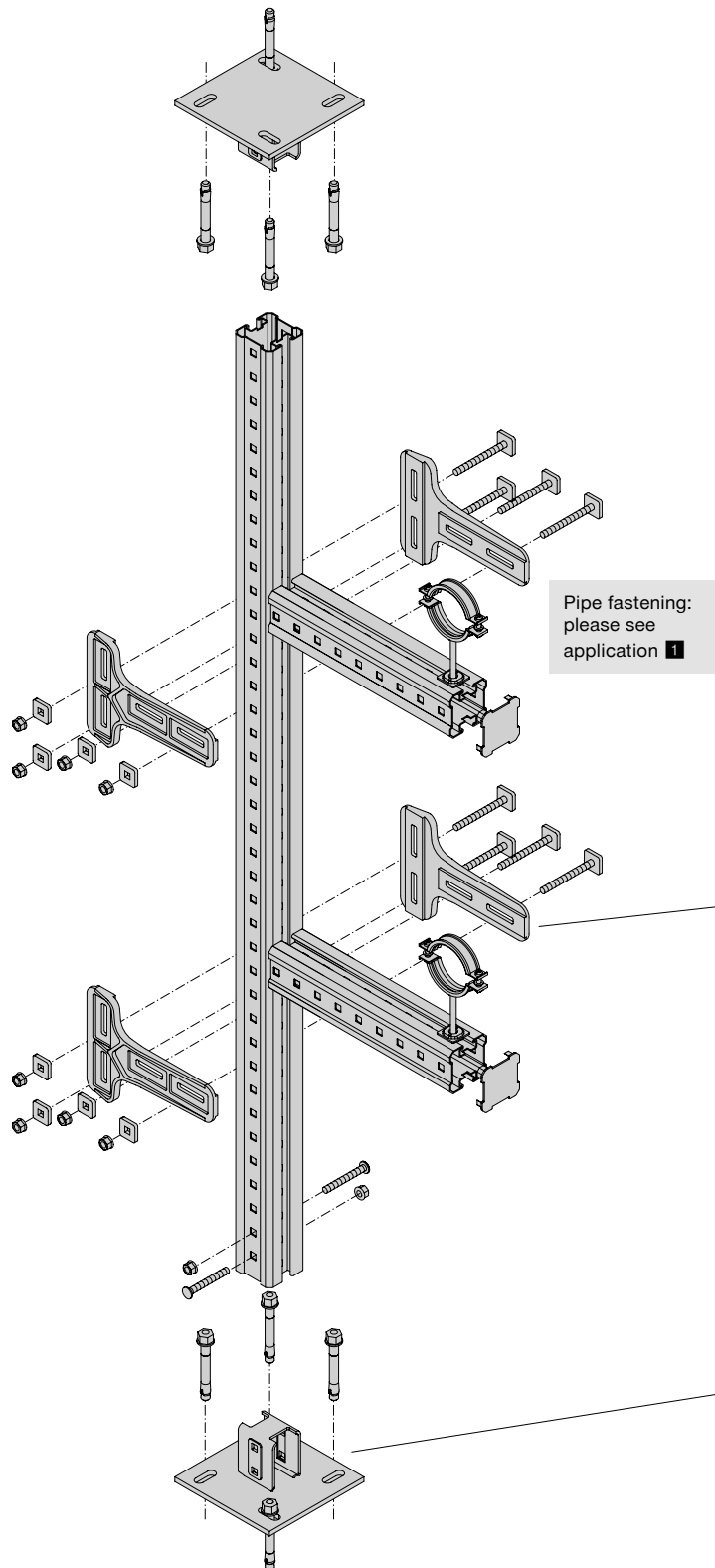
Anchors

Base material

Concrete

Bracket tree on concrete - options

MIQ bracket tree with brackets made of MIQ girder



MIQ bracket tree with brackets made of MIQ girder. BOM for entire application without pipe ring connections

Base material connector

MIQC-C90 base connector
2x (incl. connectivity parts) upper screw are not used 2120144

Anchors

8x HST-R M16x130/10 anchor 2085454

Vertical girder

1x MIQ-90 3m...m girder 2119866

Horizontal girder

2x MIQ-90 3m...m girder 2119866

Bracket connectors

2x MIC-90-LH bracket connector (pair) without screws 2048107

Connectivity parts for bracket connector

8x MIA-EH90 through bolt 304887

8x MIA-TP serrated plate 305707

8x M12-F-SL-WS 3/4" lock nut 382897

Plastic end cap

2x MIA-EC90 plastic end cap 432077

MIQ/MI bracket connector

Bracket connectors

1x MIC-90-LH bracket connector (pair) without screws 2048107

Connectivity parts for bracket connector

4x MIA-EH90 through bolt 304887

4x MIA-TP serrated plate 305707

4x M12-F-SL-WS 3/4" lock nut 382897

MIQ base material connector

1x MIQC-C90 base connector (incl. connectivity parts) 2120144

4x HST-R M16x130/10 anchor 2085454

Application description

Bracket tree

General comments

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

Application



6

Product lines

MIQ System

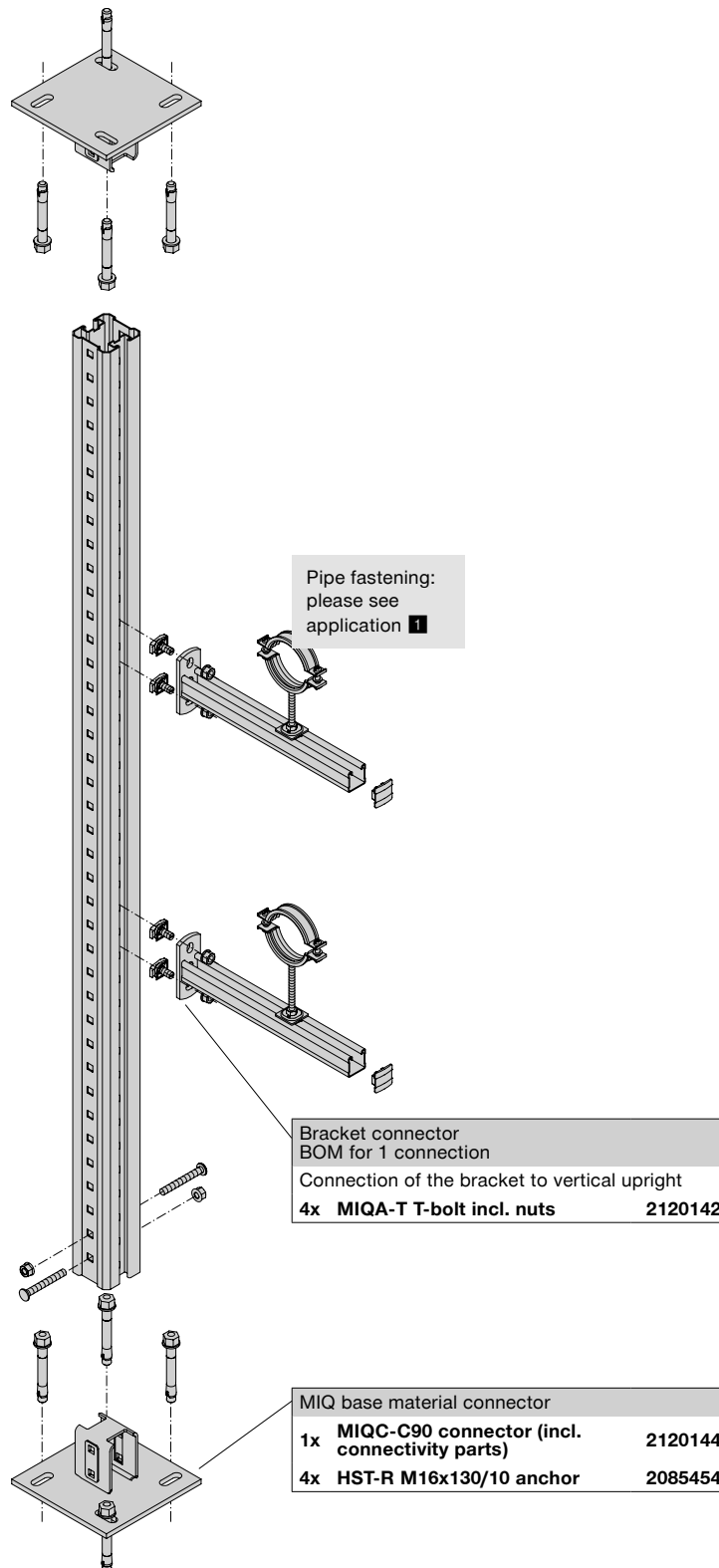
MI System

Base material

Concrete

Bracket Tree On Concrete - Options

MIQ bracket tree with brackets made of MQK brackets



MIQ bracket tree with brackets made of MQK brackets BOM for entire application without pipe ring connections		
Base material connector		
2x	MIQC-C90 base connector (incl. connectivity parts) upper screws are not used	2120144
Anchors		
8x	HST-R M16x130/10 anchor	2085454
Vertical upright		
1x	MIQ-90 3m...m girder	2119866
Brackets		
2x	MQK-21/300-F bracket	304113
	MQK-21/450-F	304114
	MQK-41/300-F	304115
	MQK-41/450-F	304116
	MQK-41/600-F	304117
	MQK-41/1000-F	304118
	MQK-72/450-F	304122
	MQK-72/600-F	304123
	MQK-21 D/300-F	304124
	MQK-21 D/450-F	304125
	MQK-21 D/600-F	304126
	MQK-41 D/1000-F	304127
Plastic end cap for 21 mm format		
2x	MQZ-E21	370598
Plastic end cap for 41 mm format		
2x	MQZ-E41	369685
Plastic end cap for 72 mm format		
2x	MQZ-E41	369685
2x	MQZ-E31	369686
Plastic end cap for 21D mm format		
4x	MQZ-E21	370598
Plastic end cap for 41D mm format		
4x	MQZ-E41	369685
Connection of the bracket to vertical upright		
4x	MIQA-T T-bolt incl. nut	2120142

Application description

Bracket tree

General comments

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

Application



6

Product lines

MIQ System

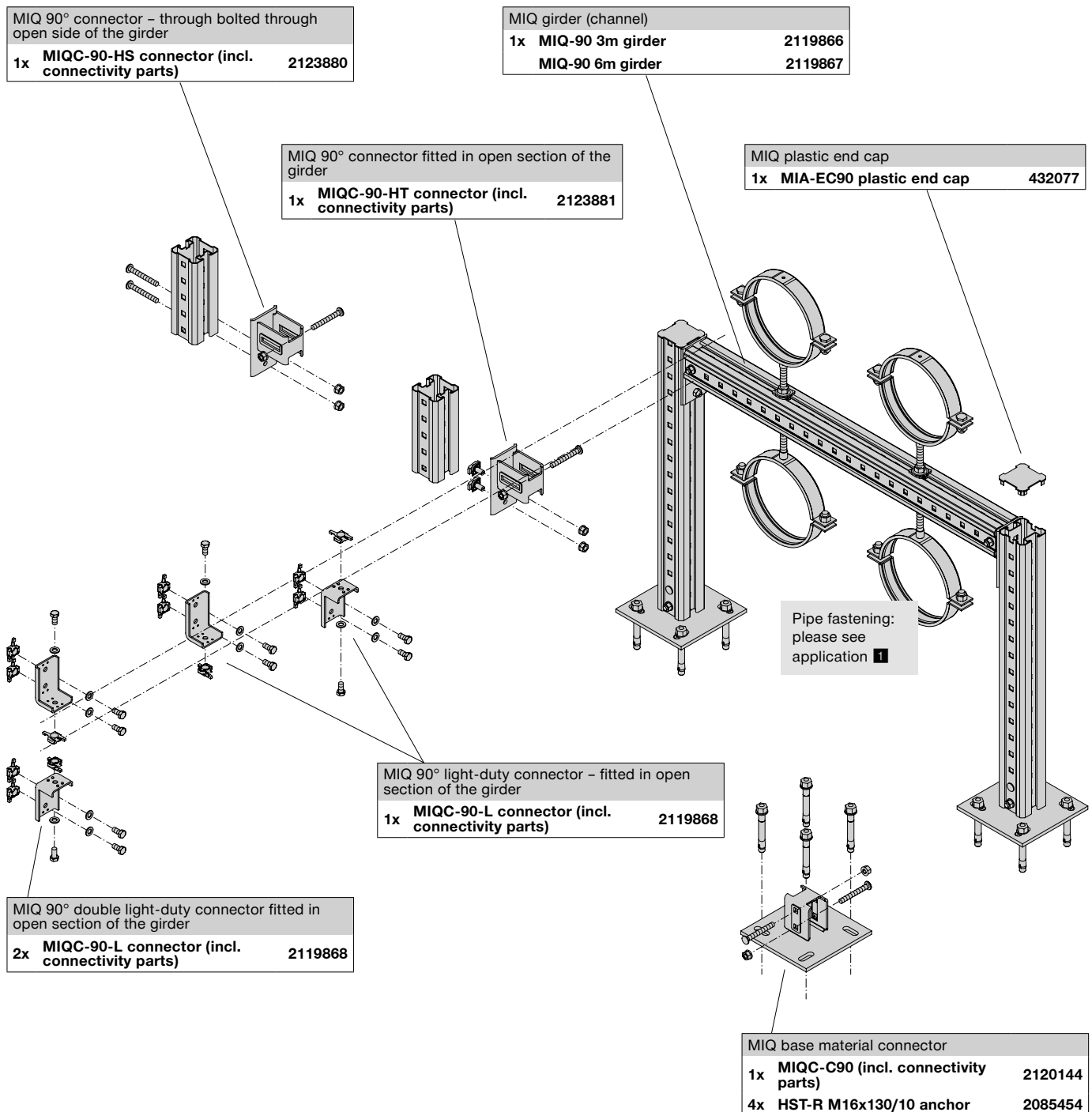
MQ-F System

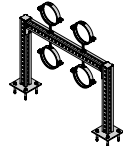
Base material

Concrete

Goal Post On Concrete - Options

Goal post



Application description	Application	Product lines	Base material
Goal post	 7	MIQ System	Concrete
General comments		Anchors	
These illustrations do not show any loading capacity limits, load exposure or limitations applicable to any load combinations			

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Hilti Corporation | 9494 Schaan | Liechtenstein | P +423-234 2111 | www.facebook.com/hiltigroup | www.hilti.com