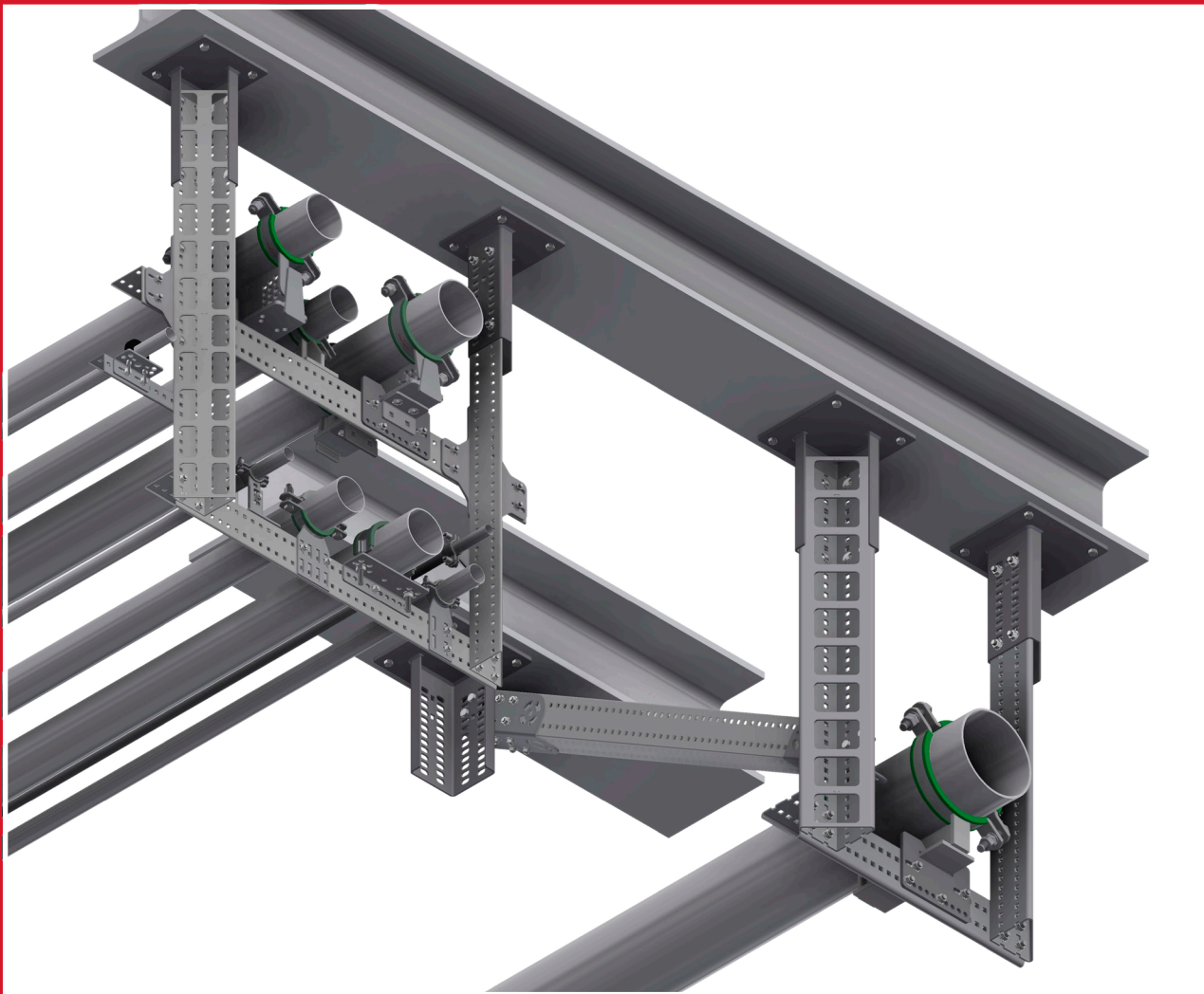


# Maintenance & Modifications

*Quick guide for selection, sizing and installation of pipe support systems*



## Reduce MMO costs with >30%



Flexible cold  
work solutions



Quick and Easy  
On-site modifications



Light weight  
support system



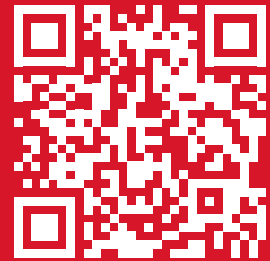
Reduce deferment  
& installation cost

# We Support You!

This is your tool for selection, sizing and installation of pipe support systems used in offshore maintenance and modification work.

**By following the step-by-step guide you can reduce your MMO costs with >30%.**

Full product overview is found at [www.oglaend-system.com/selector](http://www.oglaend-system.com/selector)



[www.oglaend-system.com/selector](http://www.oglaend-system.com/selector)

## STEP-BY-STEP GUIDE

TO REDUCING PROJECT COSTS WITH >30%



### ENGINEERING

- Identify total load.
- Define starter points.
- Select typicals and channels based on P4D load matrix.
- Select pipe support accessories (pipe clamps, pipe shoes etc).
- Model support if required. Our channels and accessories are available in standard 3D software libraries.
- Mekano® typicals for piping are pre-engineered. Load matrix and documentation report are available on request.
- Call us for support - we have done this since 1977.



### PURCHASE

- Call or e-mail us to order:

**Phone:** (+47) 51 78 81 00

**Email:** [order@oglaend-system.com](mailto:order@oglaend-system.com)

1

Define Starters



2

Select Support Channels



3

Select Pipe Support Details



### INSTALLATION

- Re-use or install new starters by use of cold work only (bolted or clamped).
- Alternatively, bolt channel directly to existing steel.
- Install the support typicals (few parts).
- Install pipe and accessories.

# 1-2-3 Pipe Support Guide

COLD WORK



1

## Define Starters

Our bolted starters are made for light and heavy piping applications and can be installed while the facilities are in operation. They are specially designed to fit the triangular Mekano® Channels. Clamped solutions are also available.



**BOLTED L-BRACKET 50**

Art. no.	1306907
Fits channel	CH50-2T2.5
Material thickness (mm)	3
Weight (kg)	0.7

*For light duty supporting.*



**BOLTED C-BRACKET 100**

Art. no.	1303358
Fits channel	CH100-2T3
Material thickness (mm)	4
Weight (kg)	5.0



**BOLTED C-BRACKET 125**

Art. no.	1306896
Fits channel	CH125-2T5
Material thickness (mm)	5
Weight (kg)	8.4

2

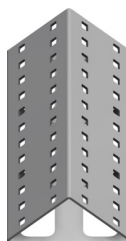
## Select Mekano® Support Channels

Mekano® is a flexible, lightweight and cost saving support system designed for multidiscipline **piping** applications.



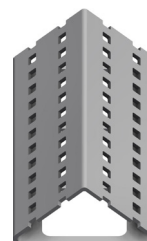
**MEKANO® CH50-2T2.5**

Art. no.	1372183
Length (mm)	3000
Width (mm)	50
Material thickness (mm)	2.5
Weight (kg)	7.3
Weight (kg/m)	2.43



**MEKANO® CH100-2T3**

Art. no.	1372185
Length (mm)	3000
Width (mm)	100
Material thickness (mm)	3
Weight (kg)	18.0
Weight (kg/m)	6.0



**MEKANO® CH125-2T5**

Art. no.	1303398
Length (mm)	3000
Width (mm)	125
Material thickness (mm)	5
Weight (kg)	36.9
Weight (kg/m)	12.3

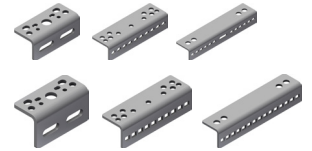
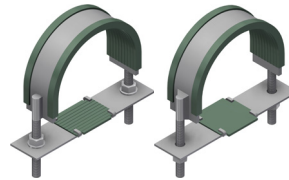
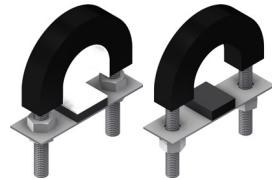
3

## Select Pipe Support Details

Our Pipe Support Details are designed to be fully compatible with our Mekano® channels, either by bolting directly in the pre-drilled holes or by using an adapter.

Next page →

## U-Straps & U-Bolts



Standard U-bolts

Brackets

### U-BOLTS

Type	SS
1/2" M6	1302403
1/2" M8	1302404
3/4" M8	1302405
3/4" M10	1302396
1" M8	1302406
1.1/4" M10	1302407
1.1/2" M10	1302408
2" M10	1302409
2" M12	1302410
2.1/2" M10	1302411
2.1/2" M12	1302412
3" M12	1302413
3.1/2" M12	1302414
4" M12	1302415

Not all dimensions fit DN piping sizes.

PSU 110	1302391
PSU 160	1302392

Bracket for U-Bolts. PSU 110 for 1/2"-2" and PSU 160 for 1"-4".

### U-BOLT VIBRO DAMPING

Non-Grip

Grip

Type	SS
PC06-015	PS43200
PC06-020	PS43201
PC06-025	PS43202
PC06-032	PS43203
PC06-040	PS43204
PC06-050	PS43205
PC05-015	PS43180
PC05-020	PS43181
PC05-025	PS43182
PC05-032	PS43183
PC05-040	PS43184
PC05-050	PS43185

For lines DN 15-50 / 1/2" -2".  
Type S.T.K

### U-STRAP

Non-Grip

Grip

Type	SS
PC01-050	PS43000
PC01-080	PS43001
PC01-100	PS43002
PC01-125	PS43003
PC01-150	PS43004
PC01-200	PS43005
PC02-050	PS43048
PC02-080	PS43049
PC02-100	PS43050
PC02-125	PS43051
PC02-150	PS43052
PC02-200	PS43053

For CS, SS and Alloy lines  
DN 50-200 / 2"-8".

### MEKANO® ADAPTERS

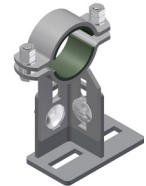
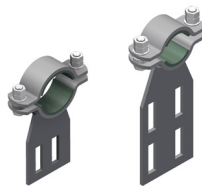
Type	SS
1/2"-2"	PS60051
2"-5"	PS60050*
6"-8"	PS60046*
1/2"-2"***	PS60414
2"-5"***	PS60412*
6"-8"***	PS60410*

For fitting on Mekano®.

\*Nonie adjustment.

\*\*For Mekano CH125-2T5.

## Pipe Clamps



### 2 BOLTS PIPE CLAMP FOR LIGHT LOADS

Type	SS
PC08-015	PS43299
PC08-020	PS43300
PC08-025	PS43301
PC08-032	PS43302
PC08-040	PS43303
PC08-050	PS43304
PC08-080	PS43305
PC08-0100	PS43306
PC08-0125	PS43307
PC08-0150	PS43308
PC08-0200	PS43309

For CS, SS & Alloy Lines  
DN 15-200 / 1/2"-8".

### PERFORATED PLATE, PIPES ≤ 2"

Short-Plate

Long-Plate

Type	SS
PC21-015	PS44065
PC21-020	PS44066
PC21-025	PS44067
PC21-032	PS44068
PC21-040	PS44069
PC21-050	PS44070
PC21-015	PS44100
PC21-020	PS44101
PC21-025	PS44102
PC21-032	PS44103
PC21-040	PS44104
PC21-050	PS44110

Long-Plate have ~6 mm adjustment available by turning the clamp 180°. Not compatible with CH125-2T5.

### PERFORATED PLATE, 2"-4" PIPES

Type	SS
PC23-050	PS44150
PC23-065	PS44151
PC23-080	PS44152
PC23-090	PS44153
PC23-0100	PS44154

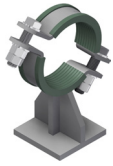
Not compatible with CH125-2T5.

### ADJUSTABLE BRACKET

Type	SS
PC13-015	PS43750
PC13-020	PS43751
PC13-025	PS43752
PC13-032	PS43753
PC13-040	PS43754
PC13-050	PS43760

2 M10 Nut(s) included.  
Not compatible with CH125-2T5.

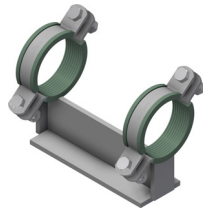
## Pipe Shoes



### SHORT CLAMPED SHOE

Type	SS
PS-01-0050	PS46015
PS-01-0080	PS46016
PS-01-0100	PS46017
PS-01-0125	PS46018
PS-01-0150	PS46019

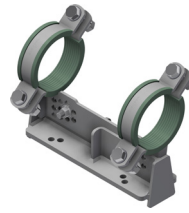
Height: 100 mm.



### CLAMPED SHOE

Type	SS
PS-02-0050	PS46218
PS-02-0080	PS46219
PS-02-0100	PS46220
PS-02-0125	PS46221
PS-02-0150	PS46222
PS-02-0200	PS46223

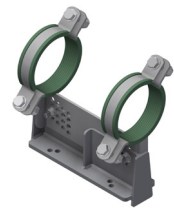
Height: 100 mm.  
Length: 300 mm.



### ADJUSTABLE (LOW)

Type	SS
PS-05-0050	PS46067
PS-05-0080	PS46068
PS-05-0100	PS46069
PS-05-0125	PS46070
PS-05-0150	PS46071
PS-05-0200	PS46072

Height: 100 mm.  
Length: 316 mm.  
Adjustable in 2.5 mm steps.



### ADJUSTABLE (HIGH)

Type	SS
PS-07-0050	PS46037
PS-07-0080	PS46038
PS-07-0100	PS46039
PS-07-0125	PS46040
PS-07-0150	PS46041
PS-07-0200	PS46042

Height: 150 mm.  
Length: 316 mm.  
Adjustable in 2.5 mm steps.



### BOLTED LINE GUIDE & HOLD DOWN

Type	SS	Baseplate thickness
LG05-A	PS41862	10 mm
LG05-B	PS41872	15 mm
LG05-A	PS41863*	10 mm
LG05-B	PS41873*	15 mm

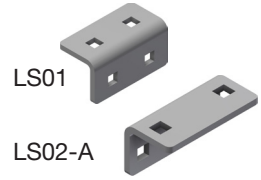
With Nonie adjustment for Shoes.  
\*For Mekano® CH125-2T5.



### BOLTED ANCHOR/LG+HD

Type	SS	Baseplate thickness
LG01-A	PS41678	10 mm
LG01-B*	PS41679	10 mm
LG01-C	PS41680	15 mm
LG01-D*	PS41681	15 mm

4 M10 Nut(s) included.  
Not compatible with CH125-2T5.

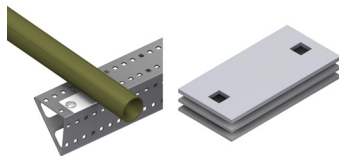


### BOLTED LINE STOP

Type	SS
LS01	PS41900
LS02-A	PS41903*

Includes 2x Line Stops for Shoes.  
\*For Mekano® CH125-2T5.

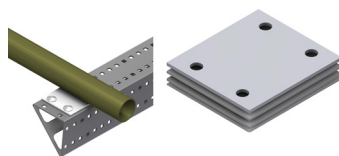
## Pipe Support Accessories



### LOW FRICTION MULTIGRID ISOLATION PAD (RECTANGULAR)

Type	SS
MI01-A	PS42000
MI01-B	PS42001
MI01-C	PS42002
MI01-D	PS42003
MI01-E	PS42004
MI01-F	PS42005

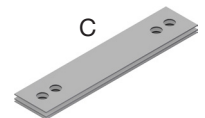
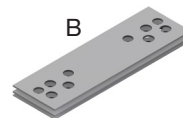
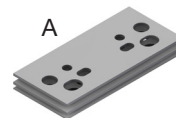
-46°C-150°C (PTFE/SS).  
Shim plates included (2x2 mm).  
Not compatible with CH125-2T5.



### LOW FRICTION MULTIGRID ISOLATION PAD (SQUARE)

Type	SS
MI02-A	PS42020
MI02-B	PS42021
MI02-C	PS42022
MI02-D	PS42023
MI02-E	PS42024
MI02-F	PS42025

-46°C-150°C (PTFE/SS). Shim plates included (1x1 mm + 2x2 mm).  
Not compatible with CH125-2T5.



### SHIMS FOR MEKANO® ADAPTER

Type	Fits	SS
SH-AD01-A	U-Bolt Mekano Adapter 1/2"-2"	PS42200
SH-AD01-B	U-Strap Mekano Adapter 2"-5"	PS42201
SH-AD01-C	U-Strap Mekano Adapter 6"-8"	PS42202

Shim plates 1x1 mm + 2x2 mm.

For more detailed information about our pipe support products visit our website:

[www.oglaend-system.com/products/accessories/pipe-support](http://www.oglaend-system.com/products/accessories/pipe-support)

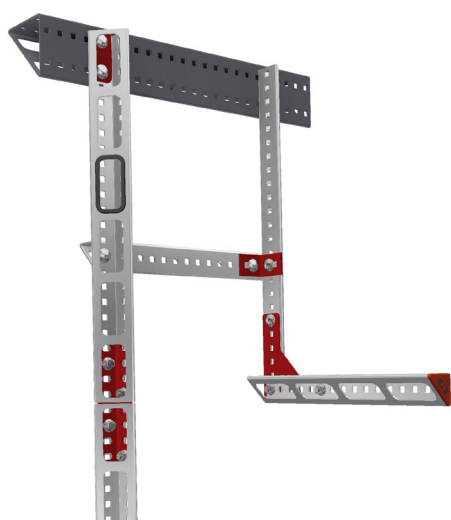
# Pipe Support Accessories

## COMPLETE RANGE

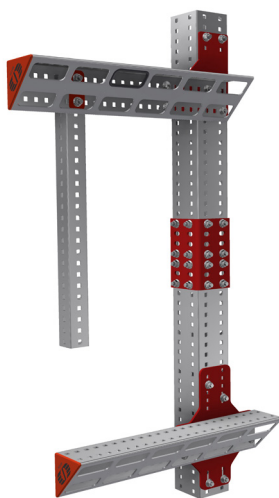
A full and comprehensive range of standard and specialist accessories are available that simplify design and procurement, and offer quick, safe and economical installation for all disciplines.

For more details about our Mekano® product range visit our website:  
[www.oglaend-system.com/products/support/mekano](http://www.oglaend-system.com/products/support/mekano)

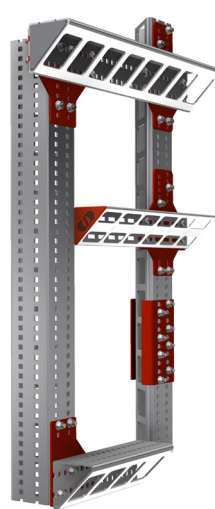
## Mekano® Accessories



Mekano® CH50-2T2.5



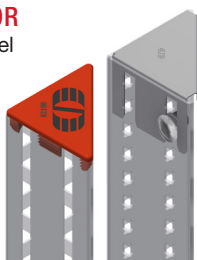
Mekano® CH100-2T3



Mekano® CH125-2T5

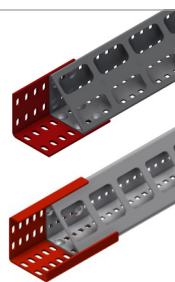
### END CAP PROTECTOR

Used when the channel is cut and the surface is left untreated.



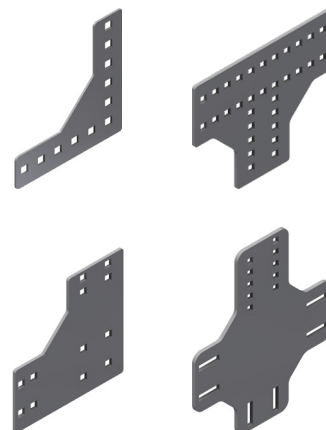
### SPLICE CONNECTOR

Splices for Mekano® Channels are usually not necessary as all Channels comes in 3 m lengths.



### GUSSET PLATES

Gusset Plates are available to reinforce the connection between two Triangle Channels. Gusset Plates are recommended to use when installing L and T supports and when adding cantilevers. Always use with CH50 to achieve 2 bolt connection.



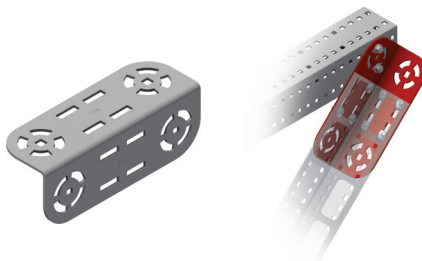
### CHANNEL WASHERS

Channel Washers are used to reinforce the channel in case of heavy loads.



### BRACING BRACKET

To provide additional support. Can be retrospectively added when using MultiGrid® system.



### CABLE PROTECTORS

Can be used to safely exit cables through the holes in the Triangle Mekano® Channel.



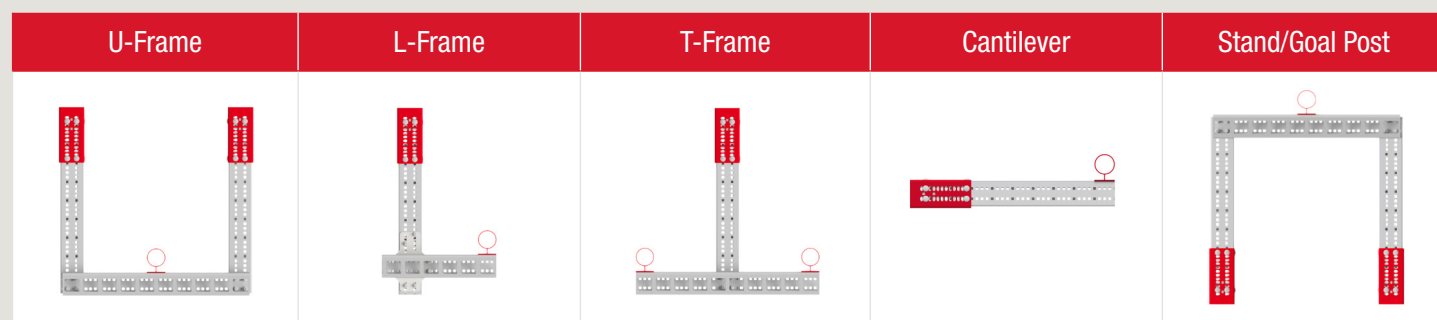
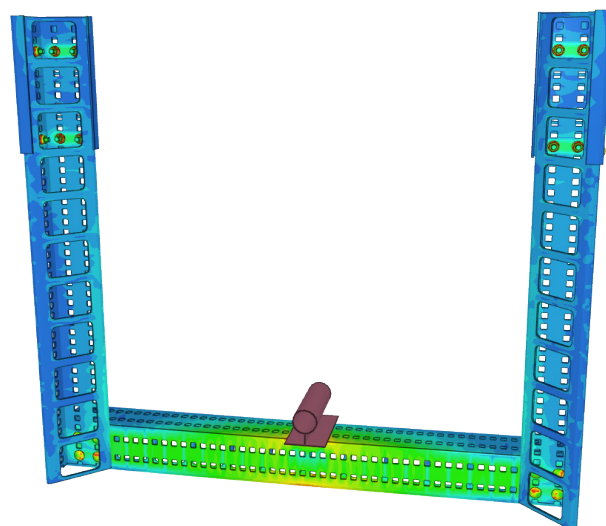


# Support System Selection

P4D

## WE USE P4D TO PRE-ENGINEER OUR SYSTEMS

P4D is an engineering tool developed to design and predict the behavior of Mekano® support systems. Finite Element technology provides extreme accuracy, well suited for piping applications.



## PRE-ENGINEERED

All our typical piping support solutions are pre-engineered. The need for further calculations in PMO projects will in many cases be unnecessary.

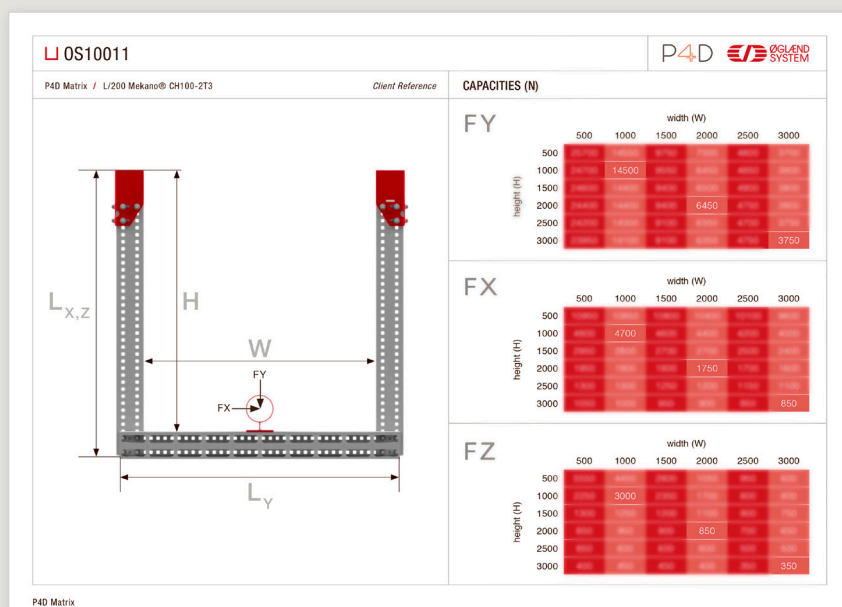
Use our P4D Matrix for quick channel and support selection (available upon request). Bespoke projects are verified with P4D.

## DOCUMENTATION AVAILABLE

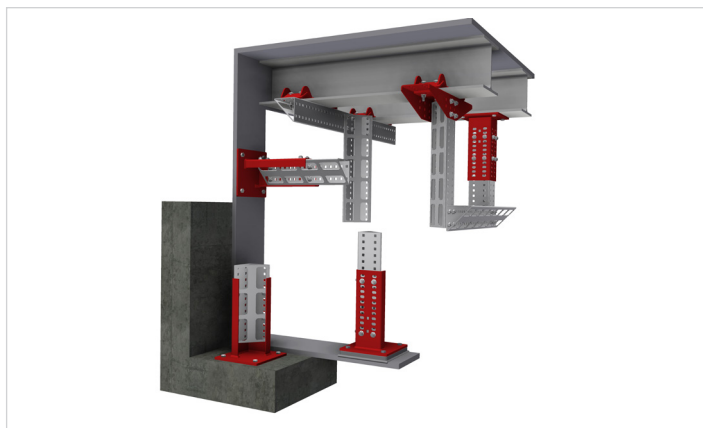
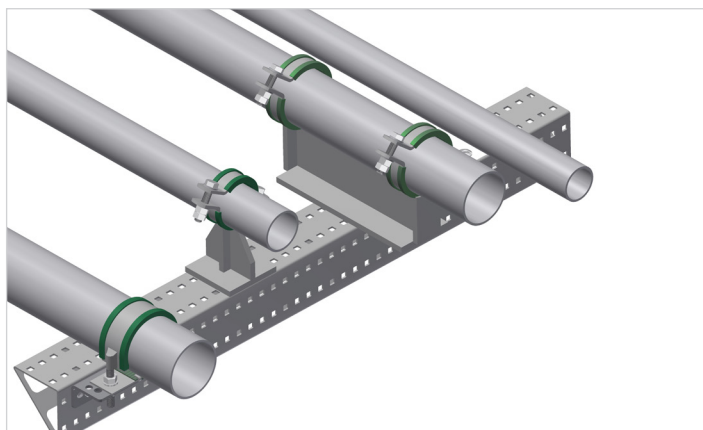
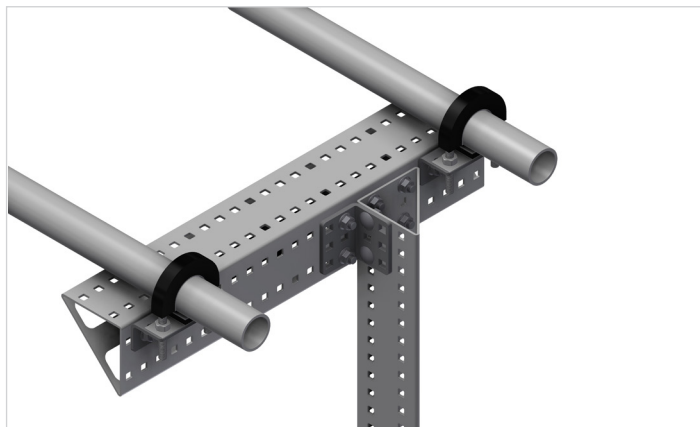
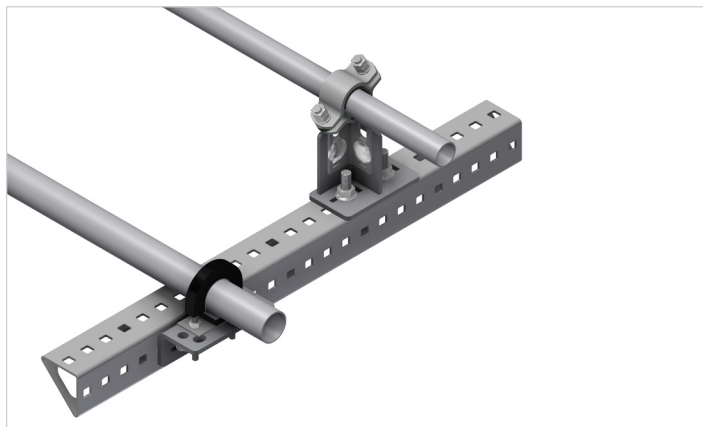
All typicals are supplied with relevant documentation.

## P4D MATRIX TEASER

Contact us for full versions of load matrices that cover all support typicals.



# Pipe Support Applications



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P.O. box 133, Engelsvollvegen 264  
N-4358 Kleppe, Norway

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**E-mail:** [oglaend@oglaend-system.com](mailto:oglaend@oglaend-system.com)

**Order/purchase orders:**  
[ordre@oglaend-system.com](mailto:ordre@oglaend-system.com)

[www.oglaend-system.com](http://www.oglaend-system.com)

Contact us:

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Customer service: 11 4134 9050  
(Monday to Friday from 8:00 to 18:00 BRT)

Online: [www.hilti.com.br/#contact](http://www.hilti.com.br/#contact)



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