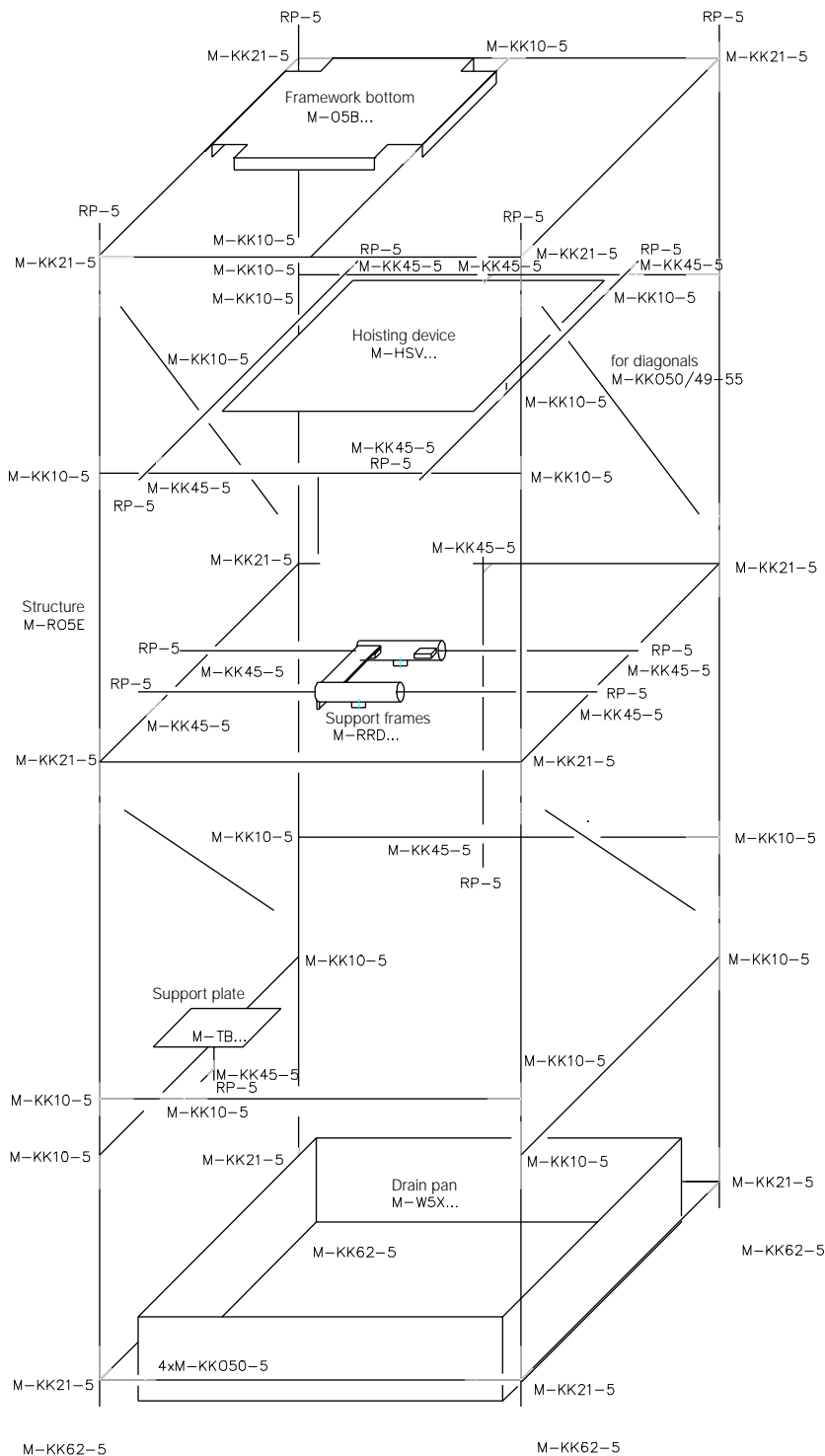


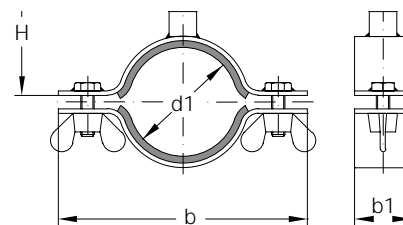
STRUCTURES

Glass installations are supported in a tension-free manner. The Miniplant technology uses polished tubes of stainless steel with coated framework connectors. The example below shows the different framework elements. You can find the tubes and connectors in the WPR 2002 Catalogue. On the following pages, you will see all special supports for the Miniplant technology. Of course, protective walls and housings are available as well.



PIPELINE SUPPORT

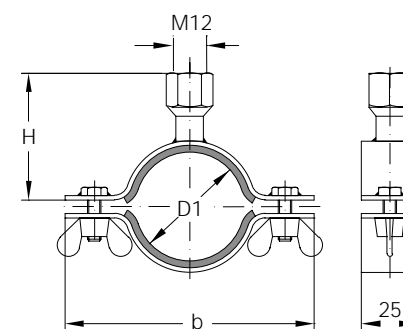
This pipeline support made of stainless steel with a ceramic tape inlay is used to guide columns and support pipelines. Use the corresponding round rod for clamping it to the framework.



DN	d1	H	b	b1	Reference
15	22	45	79	25	M-RH15
25	33	50	90	25	M-RH25
40	47	57	104	25	M-RH40
50	59	63	116	25	M-RH50
80	87	77	144	25	M-RH80
100	115	92	174	30	M-RH100
150	165	117	254	30	M-RH150
200	215	142	314	35	M-RH200

SUPPORT

This pipeline support made of stainless steel with a ceramic tape inlay is used to guide columns and support pipelines. Use the corresponding round rod for clamping it to the framework.

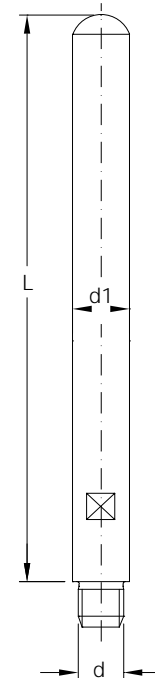


D1	H	b	Reference
70	60,5	130	M-VH70
75	68,5	136	M-VH75
85	76	146	M-VH85
100	83,5	162	M-VH100
110	88,5	172	M-VH110
130	98,5	195	M-VH130

ROUND ROD

Accessory for the pipeline support M-RH... and M-VH...

L	d	d1	Reference
150	M12	15	M-RST150
200	M12	15	M-RST200
250	M12	15	M-RST250
300	M12	15	M-RST300
350	M12	15	M-RST350
400	M12	15	M-RST400
450	M12	15	M-RST450

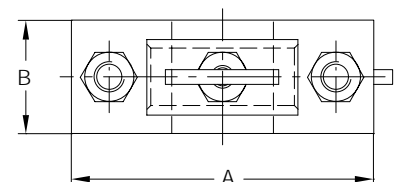
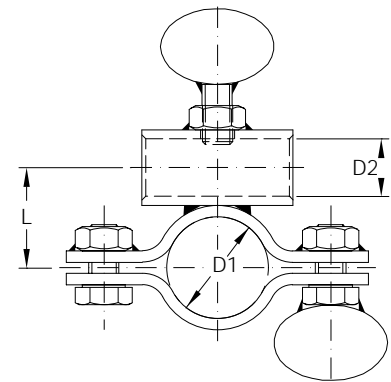


PIPE HANGERS

This pipe clamp is used for attaching round rods and framework tubes to fixed points and pipeline supports.

It is made of stainless steel.

D1	D2	L	A	B	Reference
26,9	15,2	26	80	30	M-RS5/15
26,9	27,3	33	80	30	M-RS5
42,4	15,2	35	105	30	M-RS7/15
42,4	27,3	41	105	30	M-RS7/5

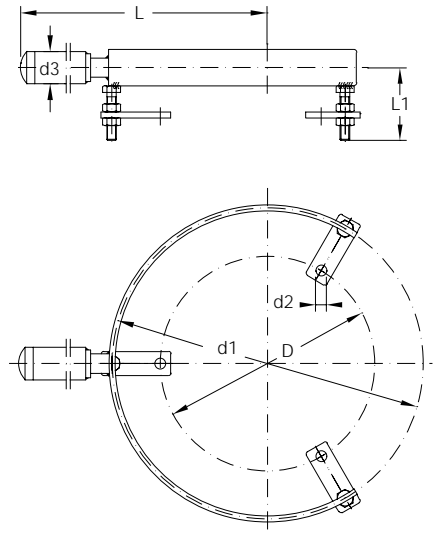


COLUMN SUPPORT - FIXED POINT

All gravity forces should be directed to the column support at the lower column connection. This fixed point is attached to the framework.

It is made of stainless steel.

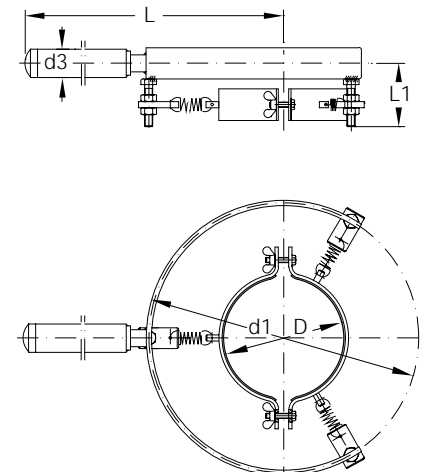
DN	D	d1	d2	d3	L	L1	Reference
50	98	178	9	26,9	419	54	M-FKH50
80	133	213	9	26,9	436	60	M-FKH80
100	178	258	11	26,9	458	60	M-FKH100



COLUMN SUPPORT - PLUMMETING POINT

Columns mounted on a fixed point support must be guided in their upper area. The plummeting point support allows for longitudinal expansions caused by temperature increases, while guiding the column safely.

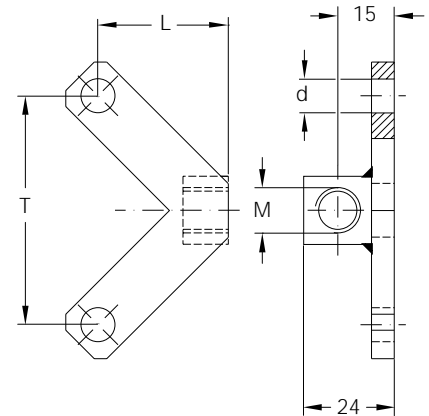
DN	D	d1	d3	L	L1	Reference
50	59	178	26,9	419	54	M-LKH50
80	87	213	26,9	436	60	M-LKH80
100	115	258	26,9	458	60	M-LKH100
150	165	305	26,9	482	66	M-LKH150



SUPPORT BRACKETS

This support yoke made of stainless steel can be used for supporting glass component parts at their connection. The support yokes fit together with the standard glass connectors. For ring clamps with DIN hole circles, use the type M-GHE... .

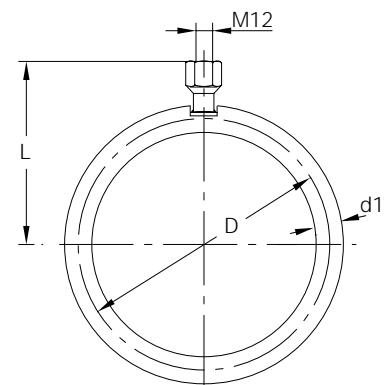
DN	d	T	L	M	Reference
15	7	43.3	25	M12	M-GH15
25	9	60.6	34	M12	M-GH25
40	9	74.5	38	M12	M-GH40
15	7	46	27	12	M-GHE15
25	9	60,1	34	12	M-GHE25
40	9	78	40	12	M-GHE40



SPHERICAL VESSEL SUPPORT RINGS

Spherical vessels are mounted on support rings, which are attached to the framework by means of an M-RST round rod and the M-RS pipe clamp. The ring of stainless steel is coated with silicone. You will find support rings for other spheres in the WPR 2002 Catalogue.

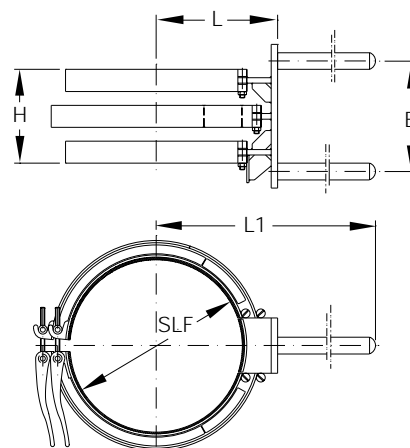
D	d1	L	For spherical vessels liter	Reference
148	16	108	2	M-VRS2
183	16	125	4	M-VRS4



TRIPLE SUPPORT

Reaction vessels, including caps with laboratory flanges, are sealed and simultaneously supported in the framework by means of the M-DFH triple support. The support rings can be opened individually. The seal is not included in the scope of delivery. The support rod diameter is 15 millimeters.

SLF	L	L1	H	B	Reference
100	92	236	47	100	M-DFH100
150	110	254	85	100	M-DFH150

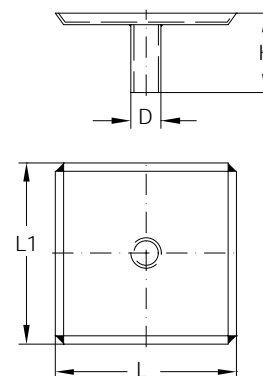


SUPPORT PLATE

Pumps are placed on support plates, which are integrated into the framework.

Material: stainless steel

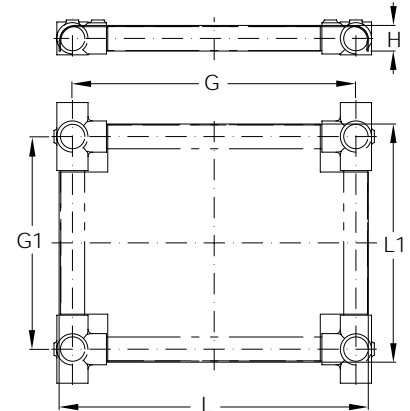
L	L1	H	D	Reference
160	160	70	26,9	M-TB1
235	305	70	26,9	M-TB2



FRAMEWORK BOTTOM

The stainless-steel framework bottom can be used to integrate measurement instruments and other equipment into the framework.

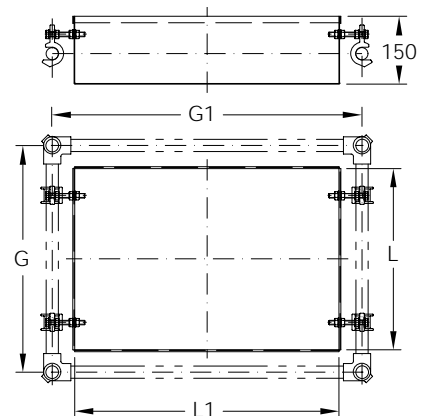
L	L1	G	G1	H	For frame pipeline "	Reference
280	405	250	375	30	3/4	M-05B2.5X3.75
530	405	500	375	30	3/4	M-05B5X3.75
530	530	500	500	30	3/4	M-05B5X5
530	780	500	750	30	3/4	M-05B5X7.5
295	420	250	375	45	1 1/4	M-07B2.5X3.75
545	420	500	375	45	1 1/4	M-07B5X3.75
545	545	500	500	45	1 1/4	M-07B5X5
545	795	500	750	45	1 1/4	M-07B5X7.5



DRAIN PAN

Material: stainless steel

L	L1	G	G1	Volume	Reference
400	400	500	500	17	M-W5X5
400	650	500	750	28	M-W5X7.5
400	900	500	1000	39	M-W5X10
650	650	750	750	46	M-W7.5X7.5
650	900	750	1000	64	M-W7.5X10
1400	650	1500	750	100	M-W7.5X15



HOISTING AND SWIVELING FACILITY

The hoisting and swiveling facility should be used where reaction vessels are mechanically cleaned or replaced.

Once the lower nuts are released, the vessel can be lowered and swiveled to the side, while the cap and the stirrer rest on the fixed point plate.

The hoisting and swiveling facility is designed for a total weight of the reaction vessel of 100 kg. It can be used with vessels of DN 200 and DN 300. The support plate has a PTFE coating where product contact can occur.

Hoisting Rod

Overall length (mm)	Hoisting (mm)	Reference
1200	325	M-HSV325
1600	550	M-HSV550

Support

Vessel Ø	L	Reference
DN 200	286	M-HSV200
DN 300	339	M-HSV300

