Multi-level centering clamp

For both automatic and manual clamping

Benefits:

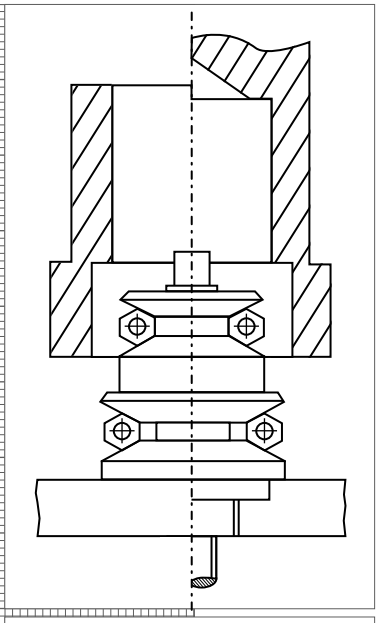
- Varying diameters
- Floating clamping levels
- Two or any number of clamping levels
- Precise self-centering
- Stable connection
- Clamping with a draw-down effect
- Distortion-free positioning and clamping
- Suitable for smaller bore holes of 12 mm and up
- Any installation position
- Generous clamping range
- Minimizes tolerances by positioning and clamping at the zero point
- Customized height according to customer's dimensions

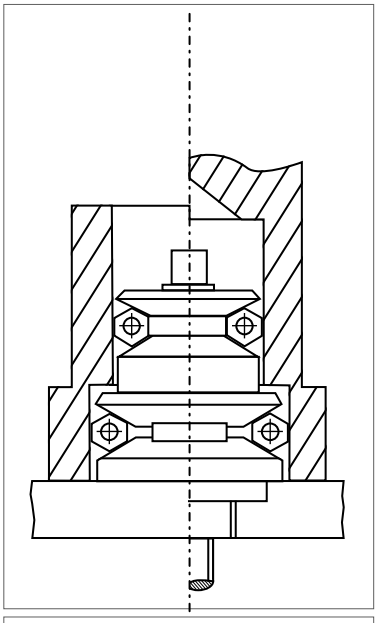
Material:

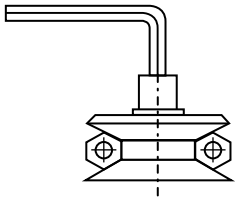
Body: 1.2842, hardened and burnished
Ball/segment: 1.4112, hardened and ground
Tension spring: 1.4210 (VA)

Applications:

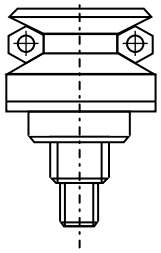
Friction-locked clamping for milling, turning, welding, bonding, assembly and transport, etc. Can be operated from above or below, even in blind holes.
With segments to protect the workpiece or with balls, e.g. for tapered and cast work-pieces. Segments and balls can be combined. The high level of stability allows for vibra-tion-free all-around machining without any supplementary tension.



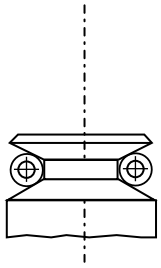




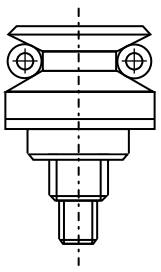
MOS form, operated from above with segment



MUS form, operated from below with segment



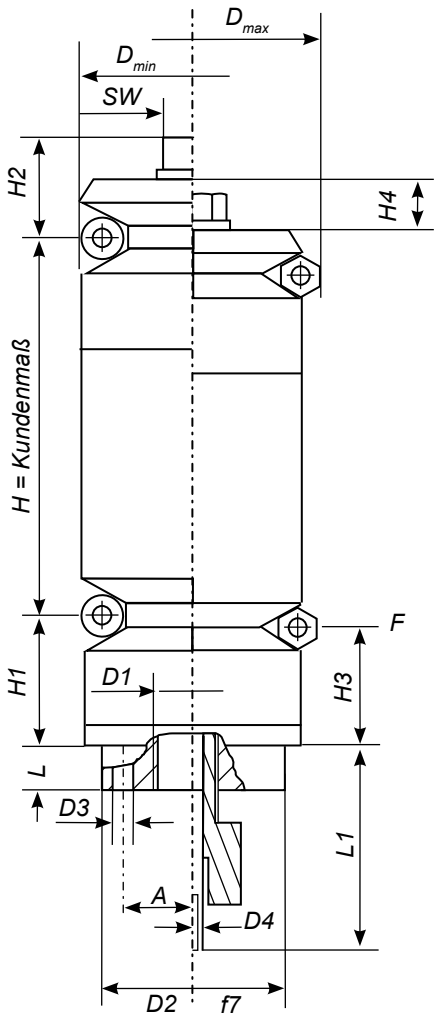
MOK form, operated from above with ball

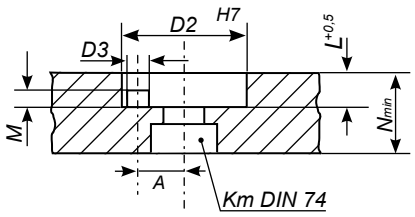


MUK form, operated from below with ball

Sample order – Order number configuration

MOS038x**H**	**M**ulti-level	Above/**O**ben	**S**egment	Diameter	Customer-**H**eight
MOK038x**H**	**M**ulti-level	Above/**O**ben	Ball/**K**ugel	Diameter	Customer-**H**eight
MUS038x**H**	**M**ulti-level	Below/**U**nten	**S**egment	Diameter	Customer-**H**eight
MUK038x**H**	**M**ulti-level	Below/**U**nten	Ball/**K**ugel	Diameter	Customer-**H**eight



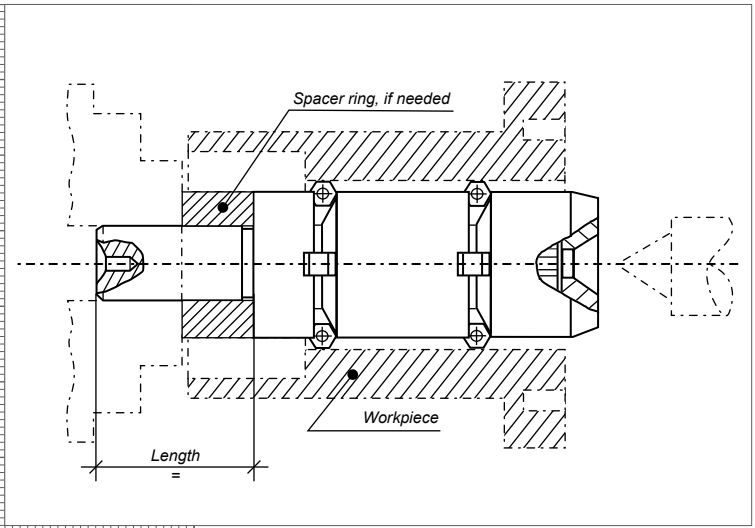


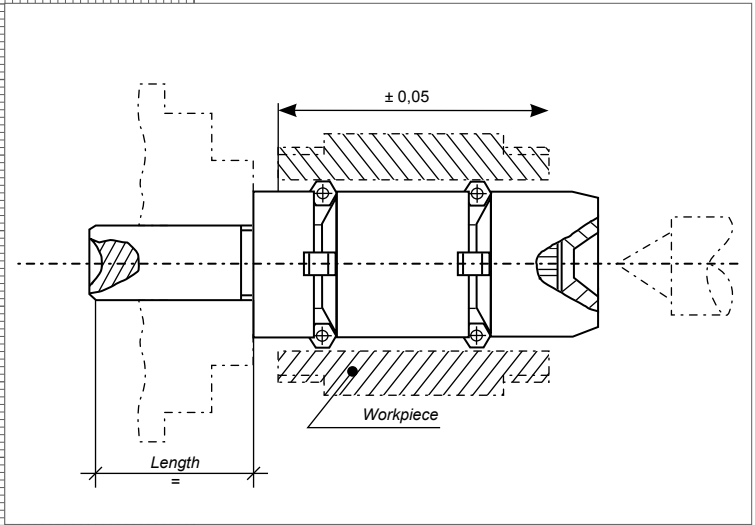
D	A	D min	D max	D1	D2 f7	D3	D4	H1	H2	H3	H4	M	SW	Q	Q_D	L1	L2	F kN	N	Km DIN 74	L
- 011 nur mit Kugel	4,3	11,7	14,2	M6	11	1,5	M3	9,1	12,5	8,3	3,0	2,5	3	3	2,5	20	10	0,5	14	6	3,5
- 014	5,0	14,5	18,5	M6	12	1,5	M3	9,1	14,5	7,3	4,8	3,0	3	3	4	20	12	3,5	16	6	5,5
- 018	6,0	18,5	22,5	M8	16	2,0	M4	12,0	14,5	10,8	4,8	3,0	4	3	4	30	12	4,5	18	8	5,5
- 022	7,5	22,5	26,5	M10	20	2,5	M5	15,1	17,0	13,9	4,8	3,0	5	3	4	30	12	5	20	10	5,5
- 026	8,0	26,5	30,5	M10	22	3	M5	15,1	17,0	13,9	4,8	3,0	5	3	4	30	12	5	20	10	5,5
- 030	9,5	30,5	38,5	M10	26	4	M5	16,5	21,5	14,1	9,6	4,5	5	3	8	30	12	5	20	10	5,5
- 038	11	38,5	46,5	M12	30	4	M6	16,5	23,5	14,1	9,6	4,5	6	6	8	35	15	6,5	20	12	7,0
- 046	11	46,5	54,5	M12	30	4	M6	18,5	23,5	16,1	9,6	4,5	6	6	8	35	15	6,5	20	12	7,0
- 054	15	54,5	70,5	M16	45	5	M8	20,5	34,0	15,7	19,2	5,5	8	6	16	40	18	8	25	16	9,0
- 070	17	70,5	86,5	M16	60	5	M8	22,5	34,5	17,7	19,2	5,5	10	6	16	40	18	10	25	16	9,0
- 086	24	86,5	102,5	M16	60	5	M8	25,0	40,0	20,2	19,2	5,5	14	6	16	40	18	10	30	16	10,0
D	A	D min	D max	D1	D2 f7	D3	D4	H1	H2	H3	H4	M	SW	Q	Q_D	L1	L2	F kN	N	Km DIN 74	L

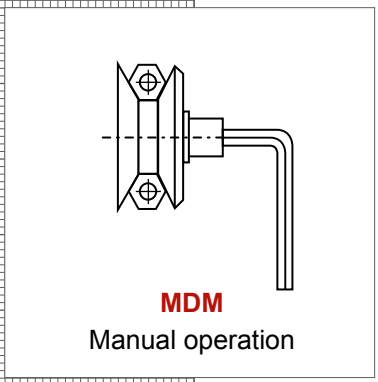
Q = number of balls, QD = diameter of balls

Multi-level centering clamp for turning and grinding

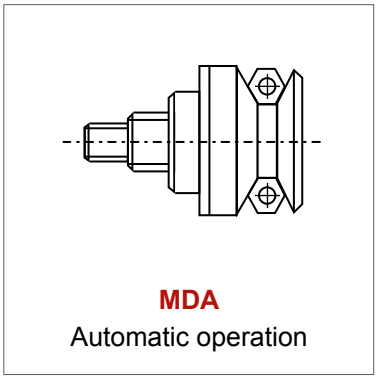
For both automatic and manual clamping







MDM
Manual operation



MDA
Automatic operation

Benefits:

- Varying diameters
- Floating clamping levels
- Two or any number of clamping levels
- Precise self-centering
- Stable connection
- Distortion-free positioning and clamping
- Generous clamping range
- Minimizes tolerances by positioning and clamping at the zero point
- Customized height according to customer's dimensions

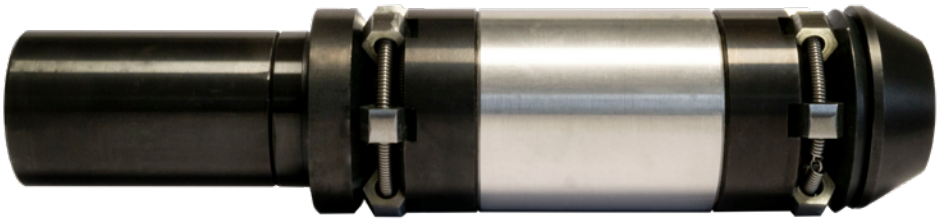
Material:
Body: 1.2842, hardened and burnished
Ball/segment: 1.4112, hardened and ground
Tension spring: 1.4210 (VA)

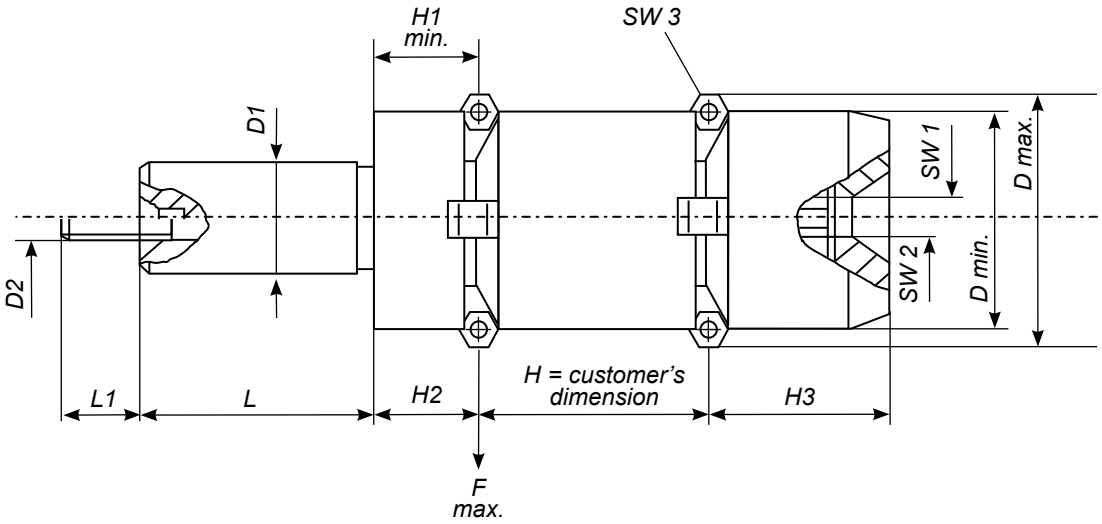
Applications:
Friction-locked clamping for grinding, turning, welding, etc. Automated or manual clamping.

With segments (standard) to protect the workpiece or with balls, e.g. for tapered and cast workpieces. Segments and balls can be combined. The high level of stability allows for vibration-free all-around machining without any supplementary tension.

Sample order – Order number configuration

MDM038x**H**	**M**ultilevel	Turning "**D**rehen"	**M**anual	Diameter	Customer-**H**eight
MDA038x**H**	**M**ultilevel	Turning "**D**rehen"	**A**utomatic	Diameter	Customer-**H**eight





D	15	25	40	55	70	85	100	125	150	special size
- 30			X	X	X					
- 38				X		X				
- 46					X		X			
- 54					X		X			
- 70						X		X		
- 86							X		X	

H = customer's dimension

D	D min	D max	D1 f7	D2	H1	H2	H3	SW1	SW2	L	L1	F kN	Q	SW3
- 30	30,5	38,5	20	M5	14,1	16,5	27	5	5	60	12	5	3	8
- 38	38,5	46,5	25	M6	14,1	16,5	29	6	5	70	15	6,5	6	8
- 46	46,5	54,5	30	M6	16,1	18,5	31	6	5	70	15	6,5	6	8
- 54	54,5	70,5	35	M8	15,7	20,5	45	8	6	80	18	8	6	16
- 70	70,5	86,5	40	M8	17,5	22,5	47	10	6	80	15	10	6	16
-086	86,5	102,5	45	M8	20,2	25,0	53	14	6	90	18	10	6	16
D	D min	D max	D1 f7	D2	H1	H2	H3	SW1	SW2	L	L1	F kN	Q	SW3

Q = number of segments