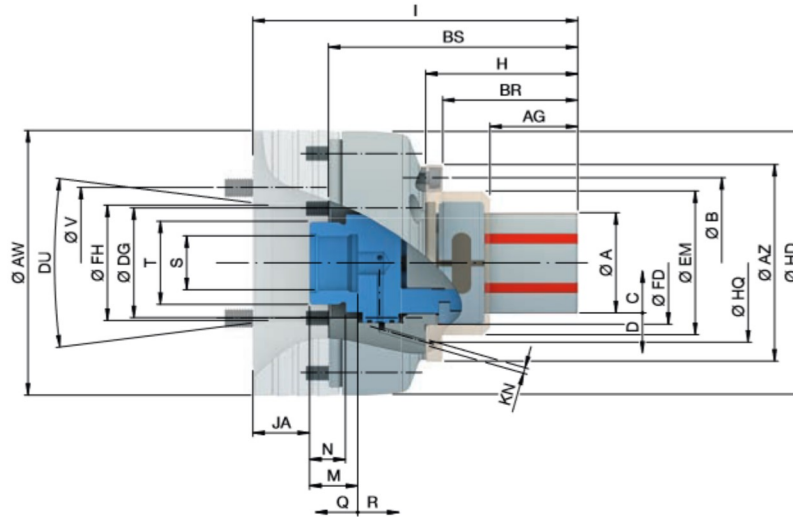




**MANDO T212 size XXS. Technical data**



Size	XXS								
Clamping range [mm]	A		8 – 13						
Spindle nose	DU	A2-4	A2-5	A2-6	A2-8	AP120	AP140	AP170	AP220
Run-out ≤ [mm]									0,020
Max. radial clamping force [kN]									42
Max. axial drawtube force [pull / push] [kN]									10
Max. clamping length [mm]	AG								12,9
Reserve stroke in Ø [mm]	D								0,2
Release stroke in Ø [mm]	C								0,2
RPM n max. [1/min.]									7000
Reserve stroke axial [mm]	Q								1,5
Release stroke axial [mm]	R								1,5
Reception workpiece end-stop	FD								Ø 34 f7
End-stop outer Ø [mm]	AZ								65
End-stop outer Ø 2 [mm]	EM								41
Bolt hole circle end-stop	B								LK Ø 53 [3 x M5]
Length [mm]	H								45,5
Length 2 [mm]	BS								100,5
Total length [mm]	I		140,5		144,5			140	
Depth [mm]	BR								36,50
Connecting thread inside	S								M30 x 1,5
Connecting thread outside	T								M44 x 1,5
Distance [mm]	JA		30		34			30	
Depth of thread [mm]	M								25,5
Thread length [mm]	N								19
Max. drawtube Ø [mm]	DG								54
Minimum length of DG [mm]									13
Bore-Ø	FH	61	79,6	103,2	100	77	80		103
Bolt hole circle	V	LK Ø 82,6 [3 x M10]	LK Ø 104,8 [6 x M10]	LK Ø 133,4 [6 x M12]	LK Ø 171,4 [6 x M16]		LK Ø 104,8 [6 x M10]	LK Ø 133,4 [6 x M12]	LK Ø 171,4 [6 x M16]
Outer Ø [mm]	AW		140		165		140	150	
Outer Ø 2 [mm]	HD								139
Air sensing control bolt hole circle-Ø [mm]	HQ								56
Air sensing control bore Ø [mm]	KN								3
Central air sensing connection Ø optional [mm]									12 H7
Weight [kg]		9,1	8,5	9,5	14,3	8,7	9,3	11,1	16,6

Please note: The maximum clamping length [AG] varies from 6 to 12.9 mm depending on the clamping diameter.

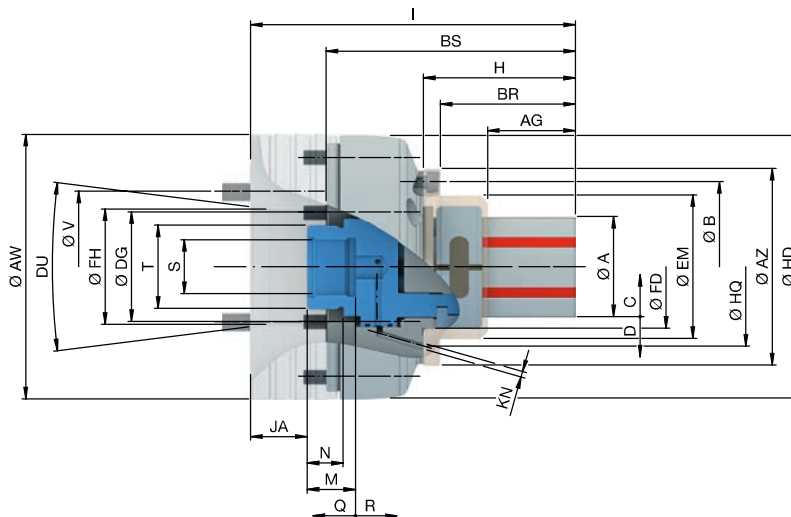
Segmented clamping bushings Page 442	Flanges Page 208	Actuating units Page 226	Accessory overview Page 478

**Scope of delivery**

- Mandrel without spindle flange / without air sensing adapter
- Coupling ring
- Mounting aid depending on size



**MANDO T212 size XS.** Technical data



Size	<b>XS</b>								
Clamping range [mm]	A	<b>13 – 19</b>							
Spindle nose	DU	A2-4	A2-5	A2-6	A2-8	AP120	AP140	AP170	AP220
Run-out ≤ [mm]		0,020							
Max. radial clamping force [kN]		42							
Max. axial drawtube force [pull / push] [kN]		10							
Max. clamping length [mm]	AG	14							
Reserve stroke in Ø [mm]	D	0,3							
Release stroke in Ø [mm]	C	0,4							
RPM n max. [1/min.]		7000							
Reserve stroke axial [mm]	Q	1,5							
Release stroke axial [mm]	R	2							
Reception workpiece end-stop	FD	Ø 36 f7							
End-stop outer Ø [mm]	AZ	65							
End-stop outer Ø 2 [mm]	EM	42							
Bolt hole circle end-stop	B	LK Ø 53 [3 x M5]							
Length [mm]	H	40							
Length 2 [mm]	BS	95							
Total length [mm]	I	135		139		135			
Depth [mm]	BR	36,50							
Connecting thread inside	S	M30 x 1,5							
Connecting thread outside	T	M44 x 1,5							
Distance [mm]	JA	30		34		30			
Depth of thread [mm]	M	25,5							
Thread length [mm]	N	19							
Max. drawtube Ø [mm]	DG	54							
Minimum length of DG [mm]		13							
Bore-Ø	FH	61	79,6	103,2	100	77	80	103	
Bolt hole circle	V	LK Ø 82,6 [3 x M10]	LK Ø 104,8 [6 x M10]	LK Ø 133,4 [6 x M12]	LK Ø 171,4 [6 x M16]	LK Ø 104,8 [6 x M10]		LK Ø 133,4 [6 x M12]	LK Ø 171,4 [6 x M16]
Outer Ø [mm]	AW	140		165		140		150	
Outer Ø 2 [mm]	HD	139							
Air sensing control bolt hole circle-Ø [mm]	HQ	56							
Air sensing control bore Ø [mm]	KN	3							
Central air sensing connection Ø optional [mm]		12 H7							
Weight [kg]		8,7	8,1	9,1	13,9	8,3	8,9	10,7	16,2

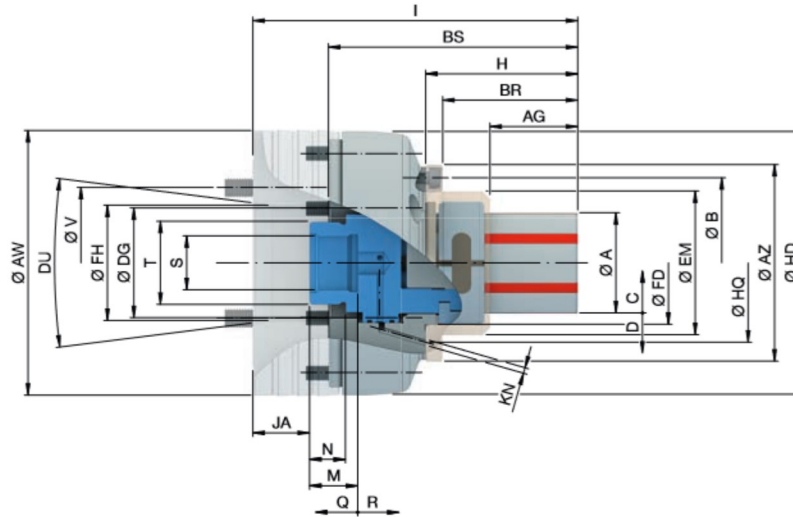


**Scope of delivery**

- Mandrel without spindle flange / without air sensing adapter
- Coupling ring
- Trimming sleeve for SAD segmented clamping bushings
- Mounting aid depending on size



**MANDO T212 size S. Technical data**



Size	<b>S</b>								
Clamping range [mm]	<b>16 – 21</b>								
Spindle nose	DU	A2-4	A2-5	A2-6	A2-8	AP120	AP140	AP170	AP220
Run-out ≤ [mm]						0,020			
Max. radial clamping force [kN]						42			
Max. axial drawtube force [pull / push] [kN]						10			
Max. clamping length [mm]	AG					15			
Reserve stroke in Ø [mm]	D					0,3			
Release stroke in Ø [mm]	C					0,4			
RPM n max. [1/min.]						7000			
Reserve stroke axial [mm]	Q					1,5			
Release stroke axial [mm]	R					2			
Reception workpiece end-stop	FD					Ø 39 f7			
End-stop outer Ø [mm]	AZ					70			
End-stop outer Ø 2 [mm]	EM					45			
Bolt hole circle end-stop	B					LK Ø 57 [3 x M5]			
Length [mm]	H					47,5			
Length 2 [mm]	BS					97			
Total length [mm]	I		137		141			137	
Depth [mm]	BR					38,00			
Connecting thread inside	S					M30 x 1,5			
Connecting thread outside	T					M44 x 1,5			
Distance [mm]	JA		30		34			30	
Depth of thread [mm]	M					25,5			
Thread length [mm]	N					19			
Max. drawtube Ø [mm]	DG					54			
Minimum length of DG [mm]						13			
Bore-Ø	FH	61	79,6	103,2	100	77	80		103
Bolt hole circle	V	LK Ø 82,6 [3 x M10]	LK Ø 104,8 [6 x M10]	LK Ø 133,4 [6 x M12]	LK Ø 171,4 [6 x M16]	LK Ø 104,8 [6 x M10]	LK Ø 133,4 [6 x M12]	LK Ø 171,4 [6 x M16]	
Outer Ø [mm]	AW		140	165	210	140	150	180	230
Outer Ø 2 [mm]	HD					139			
Air sensing control bolt hole circle-Ø [mm]	HQ					60			
Air sensing control bore Ø [mm]	KN					3			
Central air sensing connection Ø optional [mm]						12 H7			
Weight [kg]		8,8	8,2	9,2	14	8,4	9	10,8	16,3



**Scope of delivery**

- Mandrel without spindle flange / without air sensing adapter
- Coupling ring
- Trimming sleeve for SAD segmented clamping bushings
- Mounting aid depending on size