



Tower Workholding Systems TS TriStar

clamping against the fixed jaw, mechanically operated

jaw widths 80, 100 and 125 mm, with 3 clamping sides



Advantages

- 3 sizes for optimum design to the machining centre
- Clamping of 3, 6 or 12 workpieces with standard jaws
- Clamping of different workpiece dimensions also on one side
- Purely mechanical build up of the clamping force
- Easy and safe operation
- Large jaw openings and high flexibility due to extensive range of clamping jaws
- Highest stability by design as a monoblock
- Optimum protection against contamination and wear through patented guidance and sealing
- Process-safe application of clamping force, also when using grip jaws
- Optimised accessibility

Description

The tower workholding systems TS TriStar convince with their durability and precision. The patented guidance and sealing principle works without any delicate sheet metal covers or plastic wipers. The design as a monoblock, without interfaces to each screwed clamping systems, stands for high stability and high accuracy. The centrally arranged fixed jaw as a central jaw is without load and thus absolutely zero point stable. The workpieces are positioned close to each other, thus reducing the travel paths of the machining centre to a minimum. The purely mechanical operation enables clamping also with low and always reproducible clamping forces. These characteristics turn the tower workholding systems TS TriStar into a flexible standard fixture for a wide variety of applications in modern production.

Accessories

The extensive range of clamping jaws see data sheet 4.330Z.

Handling systems can optionally be used for operation. They increase the user-friendliness and improve the ergonomics. We are pleased to offer you the right system for your machine on request.

Consultation

Extensive information such as drawings and CAD models are available on request. Our experts will be pleased to advise you also on site, and work with you to find the correct clamping solution.

Technical data

Clamping sides: 3 - arrangement 3 x 120°
 Operation: mechanically with a torque wrench against central jaw or fixed jaw arranged on one side

Clamping:

TS 80 TriStar

Jaw width: 80 mm
 Clamping force: 20 kN at 45 Nm
 Max. jaw opening: 1 x 198 mm
 2 x 87 mm

TS 100 TriStar

Jaw width: 100 mm
 Clamping force: 25 kN at 55 Nm
 Max. jaw opening: 1 x 343 mm
 2 x 156 mm

TS 125 TriStar

Jaw width: 125 mm
 Clamping force: 40 kN at 115 Nm
 Max. jaw opening: 1 x 476 mm
 2 x 226 mm
 4 x 108 mm

Versions

The optimum adaptation to the machining centre and the machining task is facilitated by 2 versions of the TS TriStar workholding systems.

Version with 3rd-hand function

The operation is made with only one spindle per clamping side.

The upper and lower clamping jaw are operated together by means of a spindle and clamp against a fixed central jaw or a fixed jaw arranged on one side.

The integrated 3rd-hand function enables to only hold the lower workpiece by operating the spindle. Only after the insertion of the second workpiece above and operating again the spindle, both workpieces are clamped as defined.

Version Vector in 2 variants

Variant 1: central jaw as fixed jaw

Variant 2: 2 x fixed jaw

The operation is made with two spindles per clamping side. The 3rd-hand function is omitted. The Vector versions are particularly suitable for clamping of high workpiece weights (> 15 kg). When used as double workholding system, the upper and lower clamping points can be pressurised with different clamping forces.

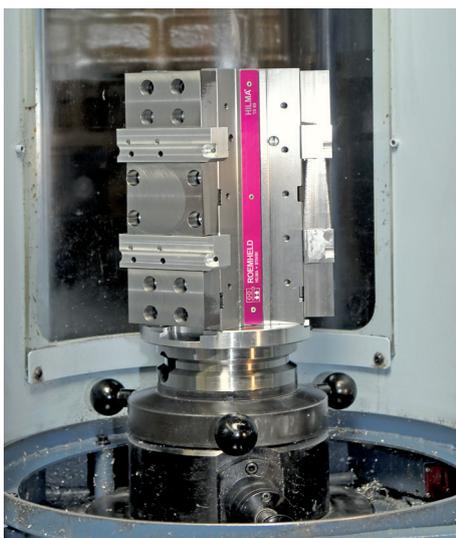
Application

TS TriStar tower workholding systems are used on horizontal machining centres, in vertical machining in connection with 4th axis, but also on 5-axis machining centres. The applications range from manually equipped machines to pallet stations and fully automated systems.

Customised versions

An experienced team of designers is at your disposal to solve your individual clamping task and to develop customised versions. Please contact us.

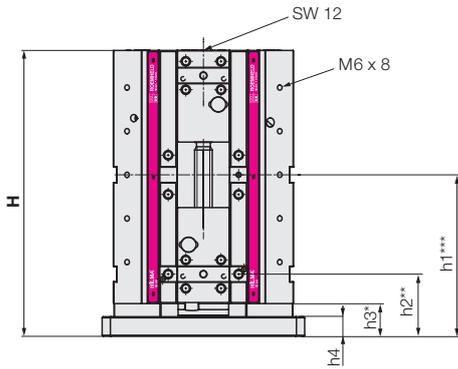
Application example



Tower workholding system TS 80 TriStar, a workholding system with connection to Matsurra MAM 72

Dimensions TS 80 TriStar

TS 80 TriStar with square base plate



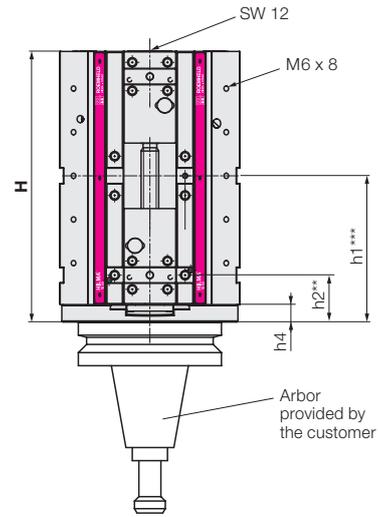
Series TS 80 TriStar
Jaw width 80 mm
Clamping force 20 kN at 45 Nm

Clamping jaws and the associated jaw openings see data sheet WS 4.330Z

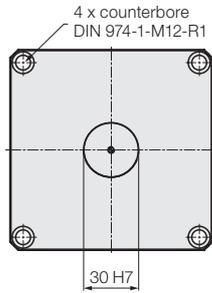
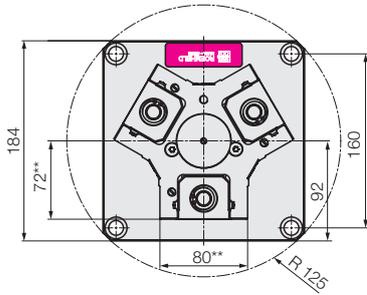
Dimensions in mm

* Tolerance ± 0.01 mm
 ** Tolerance ± 0.02 mm
 *** Tolerance ± 0.03 mm

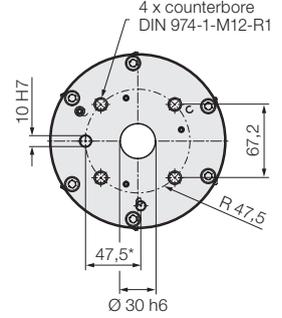
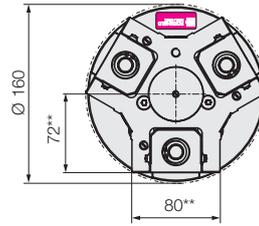
TS 80 TriStar with round base plate



View from below

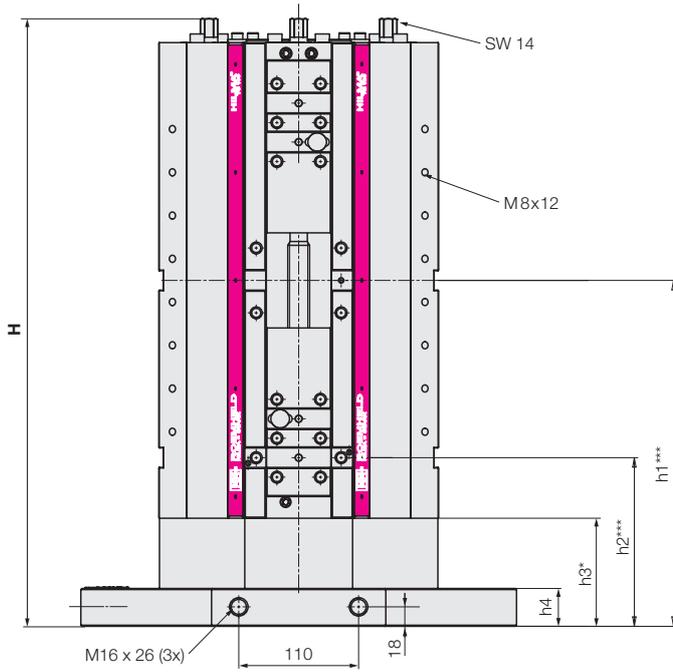


View from below



Series		TS 80 TriStar	
Version		3rd-hand	3rd-hand
Variant		square base plate	round base plate
H	[mm]	262	248
Stroke	[mm]	2 x 30	2 x 30
h1	[mm]	148	134
h2	[mm]	57	43
h3	[mm]	30	-
h4	[mm]	18	16
Weight without clamping jaws	[kg]	20	19
Part no. without clamping jaws		933640131	933640130

Dimensions TS 100 TriStar



Series TS 100 TriStar

Jaw width 100 mm

Clamping force 25 kN at 55 Nm

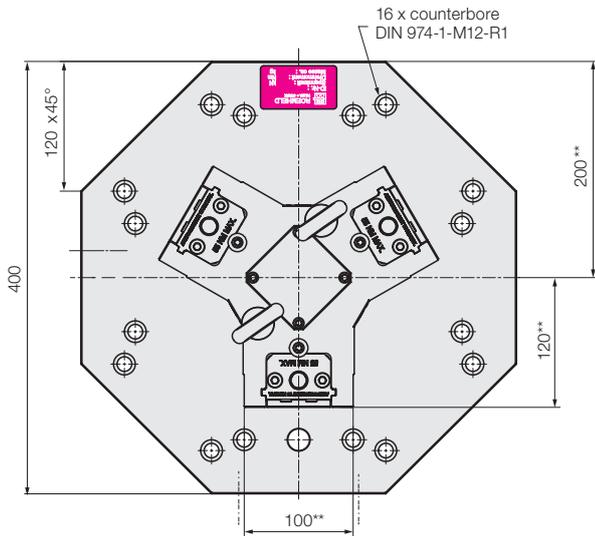
Clamping jaws and the associated jaw openings see data sheet WS 4.330Z

Dimensions in mm

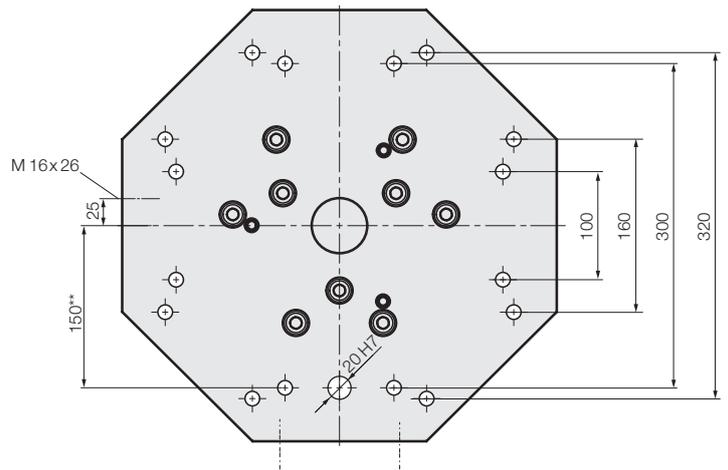
* Tolerance ± 0.01 mm

** Tolerance ± 0.02 mm

*** Tolerance ± 0.03 mm

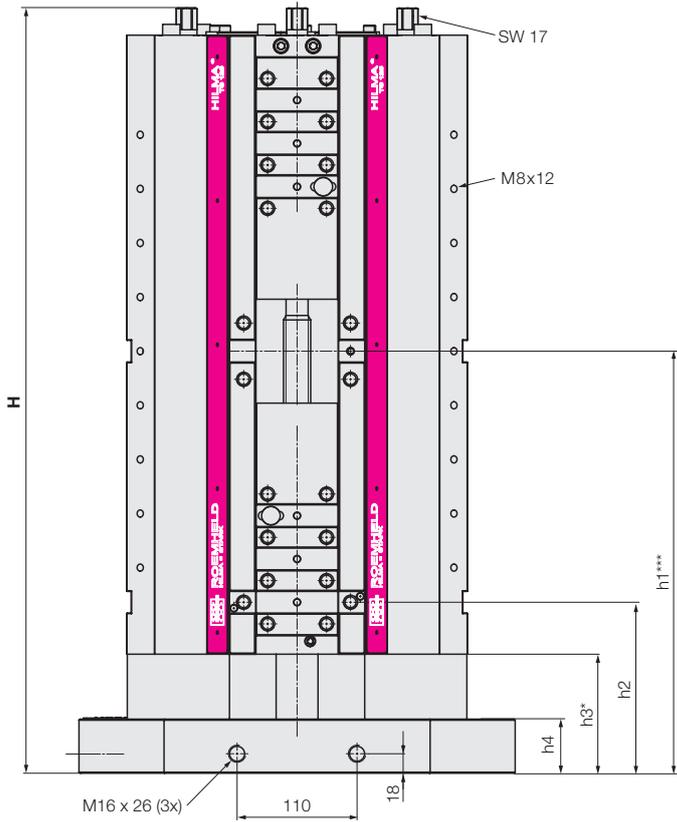


View from below



Series		TS 100 TriStar		
Version		3rd-hand	Vector	Vector
Variant			1 x central jaw	2 x fixed jaw
H	[mm]	562	599	599
Stroke	[mm]	2 x 44	2 x 44	2 x 40
h1	[mm]	320	320	360
h2	[mm]	156	156	146
h3	[mm]	100	100	100
h4	[mm]	35	35	35
Weight without clamping jaws	[kg]	104	107	107
Part no. without clamping jaws		933650232	933750232	933950232

Dimensions TS 125 TriStar



Series TS 125 TriStar

Jaw width 125 mm

Clamping force 40 kN at 115 Nm

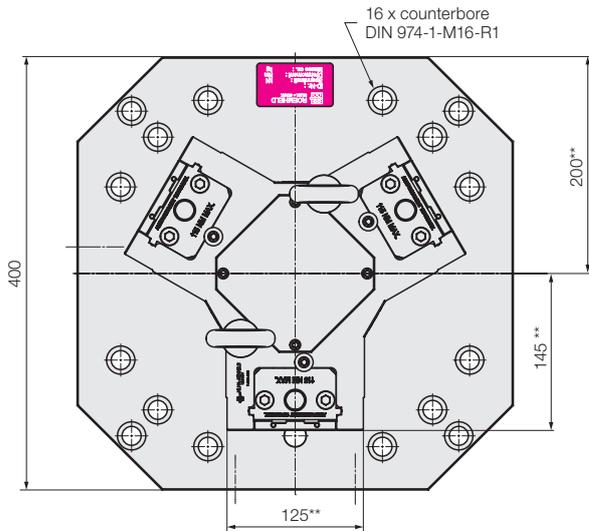
Clamping jaws and the associated jaw openings see data sheet WS 4.330Z

Dimensions in mm

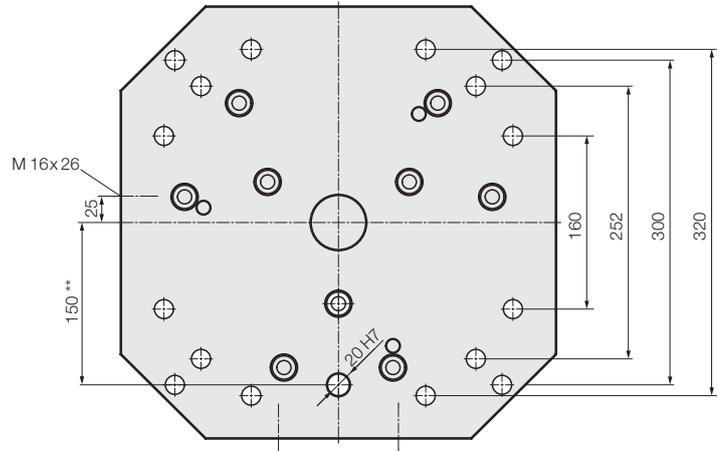
* Tolerance ±0.01 mm

** Tolerance ±0.02 mm

*** Tolerance ±0.03 mm



View from below



Series		TS 125 TriStar		
Version		3rd-hand	Vector	Vector
Variant			1 x central jaw	2 x fixed jaw
H	[mm]	707	750	745
Stroke	[mm]	2 x 48	2 x 47	2 x 47
h1	[mm]	390	390	436
h2	[mm]	158	158	154
h3	[mm]	110	110	110
h4	[mm]	50	50	50
Weight without clamping jaws	[kg]	174	185	183
Part no. without clamping jaws		933660332	933760332	933960332