

DUPLEX STAINLESS STEEL EYE BOLT



Swivel 360°

Before every use, please read the Safety Instruction of the PSA-Fall protection anchorage point (PSA-INOX-Eyebolt M12/M16/M20) carefully and make sure that you understand all the content. Improper use or care of the PSA-Fall protection anchorage points can result in body injury or property damage and eliminates any warranty!

1.application and waring information

WARING

Improper assembled or damaged fall protection anchorage points and inappropriate use can result in deadly injury or lead to heavy injuries. Inspect fall protection anchorage points before each use carefully!

PSA-Fall protection anchorage point (PSA-INOX-Eyebolt M12/M16/M20) must only used by competent and trained people with adequate knowledge.

To use PSA-Fall protection anchorage points, the user must be physically and psychologically healthy.

The PSA-Fall protection anchorage points must only load with the stated number of persons.

2. Intended use of PSA-INOX-Eyebolt

PSA-INOX-Eyebolt PSA-Fall protection anchorage points are intended for use as fall arrest anchors only and not for lifting purpose. When used as anchor points for fall protection harnesses, they (referred to also as PSA-Fall protection anchorage points hereinafter) can be permanently fixed to a structure.

PSA-Fall protection anchorage points are not designed to be used for permanent swiveling under load, because they can turn loose when turned under load. Please observe the following WLL.

PSA-INOX-Eyebolt M12/M16/M20 are permissible for max.

2 Persons

PSA-Fall protection anchorage points are able to take all possible occurring forces in any loading directions if used in the intended way as far arrest protection devices.

In consequence of the assembly method this product fulfills

the requirements as described in DIN EN795: 2012-10 and DIN CEN/TS 16415: 2013.

Personal fall protection equipment - Type A anchor device
Fall protection anchorage device which includes when installed, either one or multiple stationary anchor point(s) and if for their fixing at the structure facility a stationary installed anchor point or a fixing element is necessary.

3.Installation information

3.1 General information

Capability of temperature usage:

PSA-INOX-Eyebolt M12/M16/M20 can be used in the temperature range between -20°C up to 280°C PSA-Fall protection anchorage points must not be used in an environment that harsh chemical such as acids, alkaline solutions and vapors are present.

Modification or repairing on the PSA-Fall protection anchorage points PSA-INOX-Eyebolt M12/M16/M20 must be carried out by the manufacturer only.

A plan must exist to accomplish rescue actions, including all kinds of possible emergencies occurring with the work.

Store PSA-Fall protection anchorage points in a non-corrosive and dry environment. Proper maintenance and careful handling of them are essential to ensure workplace safety.

3.2 Assembly information

1.the material of the structure onto which the PSA - Fall protection anchorage points are installed should be capable of withstanding the force applied without causing the change of shape. The minimum thread engagement lengths of the bolts recommended are as follows:

-1 x M in steel

-1.5 x M in grey cast iron

-2 x M in aluminum alloys

-2.5 x M for light metals of low strength

(M = size of thread, i.e. M16, means 16mm thread diameter)

When used in light metals, nonferrous metals and grey cast iron

or other materials the thread has to be chosen such a way that the WLL of the thread corresponds to the requirements of the corresponding base material.

HINT

1.PSA - Fall protection anchorage points are standard supplied with a thread length of 1.5 x M. make sure that the tapped holes are providing enough depth.

2.The bolting location for the PSA - Fall protection anchorage points should be marked with paint.

3.when installing the PSA - Fall protection anchorage points, the following principles should be adopted:

-if possible, use the protection anchorage points directly above the users in order to minimize the risks of trips, falls from height and swinging after tumble.

- the connecting element must be free moveable.

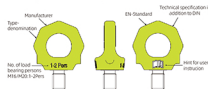
- the connecting element must not be loaded over edges.

4.Always bolt the protection anchorage points on a flat surface.

The maximum diameter of the countersunk threaded hole should be equal to the nominal diameter of the thread of screw.

5.Drill the tapped blind holes deep enough so that the shoulder of the PSA-INOX-Eyebolt M12/M16/M20 bolt sits properly on the plane surface. For holes without tapping, please refer to DIN EN20273 standard.

6.Marking of the PSA-INOX-Eyebolt M12/M16/M20



7.PSA-INOX-Eyebolt M12/M16/M20 must be able to turn by 360° around the bolt axle when its completely installed.

How to temporarily install PSA-Fall protection anchorage points:

For a temporary installation/loading at the load force transmission point, hand tightening of the bolt with an Allen key or a suitable tool, applied with normal hand force into the designed threaded hole is sufficient.

How to permanently install PSA-Fall protection anchorage points:

For an applicable permanently installation /loading at the force transmission point, the PSA-Fall protection anchorage points must be bolted in using a suitable torque wrench into the designed threaded hole. The fastening torque value (+10%) can be taken out of chart 1:

It is possible to use a wrench for the usage of a torque

Type	tightening torque [Nm]
PSA-M16	30
PSA-M20	70

3.3 User information

Inspect PSA-Fall protection anchorage device regularly before each usage in regard of tightening, corrosion, wear, deformation etc.

WARING

Wrong assembled or damaged PSA-Fall protection anchorage points as well as incorrect usage may result in serious or deadly injuries. PSA-Fall protection anchorage points must be inspected before each use.

if and doubt remains regarding the safe use of PSA-Fall protection anchorage points or if the lifting device has been stressed by a

dropped load, the use of the anchorages must be halted immediately for safety reasons. They should not be used before proper actions are taken by the competent person.

the PSA-Fall protection anchorage points has to be adjustable through 360° when fitted and completely installed
HINT

Attention: PSA-Fall protection anchorage points M16/M20 are not suited for permanent turning under load!

When assembling a harness system ensure all components are compatible with the fall protection device.

If the fall arrest anchor device is used as a part of a fall protection system, make sure the device is capable of withstanding a maximum dynamic force (i.e. the force generated when a falling load is arrested) of 6kN.

Eliminate any damage of the PSA-Fall protection anchorage point for example caused by loading on sharp edges.

The assembly of PSA - Fall protection anchorage point to a connecting element must be done by using connecting elements according to EN362 (Grade B and M), which have to free moveable to all sides.

Any other grades are prohibited. Excepting: Grade T is allowed, depending on the shape; Carabiner hooks according to DIN 5290 are prohibited.

PSA - Fall protection anchorage point M16/M20 can be combined with hook clamps according to DIN EN 362 A under the following conditions:

Used by maximum 2 persons

No transverse load of hook clamp

Hook clamp must be freely moveable

For a body harness (belt type) in a fall protection system only harness belts according to EN 361 must be used.

Hook connecting element of the selected harness system into the eye of PSA - Fall protection anchorage point and lock the connector accordingly.

Improper use of the product, such as for lifting, may shorten its lifetime. Proper inspection and maintenance must be made in

accordance with Chapter 4, Inspection criteria.

3.4 Hints for the regular inspection

If used under normal operational conditions, the anchorage points must be inspected and serviced by a technical expert at least once a year. Additional inspections must also be made when necessary (e.g. when failures or special incidents occur)

Please prepare an inspection plan for recording inspection result, date, qualified inspector signature, checking period, etc. and fill out the checking result carefully and detail for every regular inspection. Keep the inspection plan until the end of the product life.

3.5 Hint for the maintenance

For cleaning of PSA - Fall protection anchorage point use only solvent- and acid-free cleaning supplies.

4.Inspection criteria

Observe and control the following points before each usage in regular periods, after assembly and after special incidents:

1.The thread of the lifting point should be fully engaged and 100% contact with the work piece.

2.The structural integrity of the PSA - Fall protection anchorage points

3.Complete readability of the Working Load Limit (WLL) and the brand of manufacturer.

4.Deformation on load bearing parts like basic body and bolt.

5.Mechanical damages, such as dents or, particularly where tensile stress can develop.

6.Any signs of serious corrosion on the product.

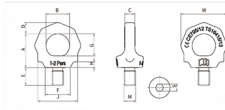
7.The reduction of cross section area caused by wear is checked only if the abnormalities are visually noticeable. If so, the reduction of the cross sectional area must not be more than 10% of the original.

8.Cracks at load bearing parts.

9.Function and damage of bolts and threads, if it's visible.

10.The product identification at the PSA - Fall protection anchorage point must be highly visible.

11.If necessary you can leave a mark at the component information about the latest and up coming inspection.



Metric Thread

ITEM NO.	Thread M	Pers	A	B	C	D	E	F	G	H	J	S	W	mm	Torque Nm	kg
PSANOX-M12	12x1.75	1Pers	43	30	10	13	18	33	29	70	48	80	55	10	0.2	
PSANOX-M16	16x2.00	1-2Pers	50	35	14	16	24	35	34	80	56	10	65	30	0.4	
PSANOX-M20	20x2.50	1-2Pers	57	40	17	19	30	43	37	95	64	12	78	70	0.6	
PSANOX-M12-50	12x1.75	1Pers	43	30	10	13	50	33	29	70	48	80	55	10	0.22	
PSANOX-M16-50	16x2.00	1-2Pers	50	35	14	16	50	35	34	80	56	10	65	30	0.48	
PSANOX-M16-120	16x2.00	1-2Pers	50	35	14	16	120	35	34	80	56	10	65	30	0.56	
PSANOX-M20-60	20x2.50	1-2Pers	57	40	17	19	60	43	37	95	64	12	78	70	0.63	

Unc Thread

ITEM NO.	Thread M	Pers	A	B	C	D	E	F	G	H	J	S	W	mm	Torque Nm	kg
PSANOX-1/2	1/2-13UNC-3A	1Pers	43	30	10	13	18	33	29	70	48	80	55	10	0.2	
PSANOX-5/8	5/8-11UNC-3A	1-2Pers	50	35	14	16	24	35	34	80	56	10	65	30	0.4	
PSANOX-3/4	3/4-10UNC-3A	1-2Pers	57	40	17	19	30	43	37	10	64	12	78	70	0.6	