



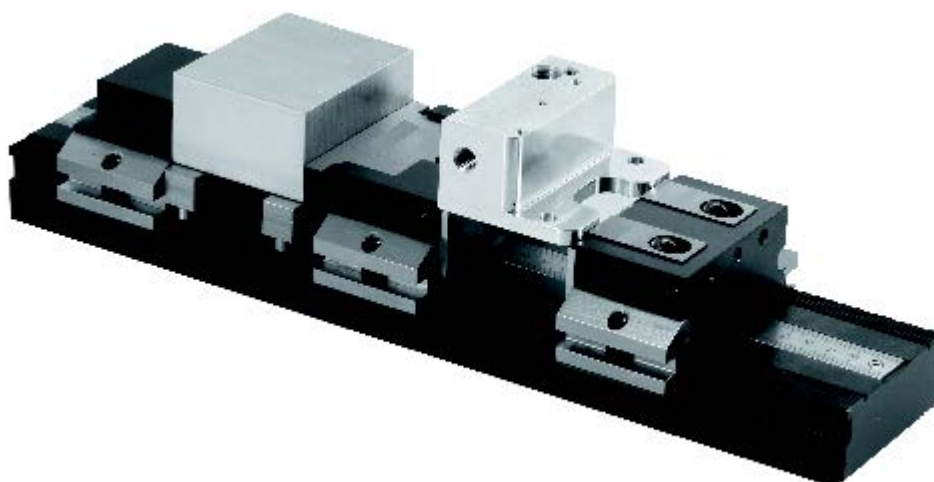
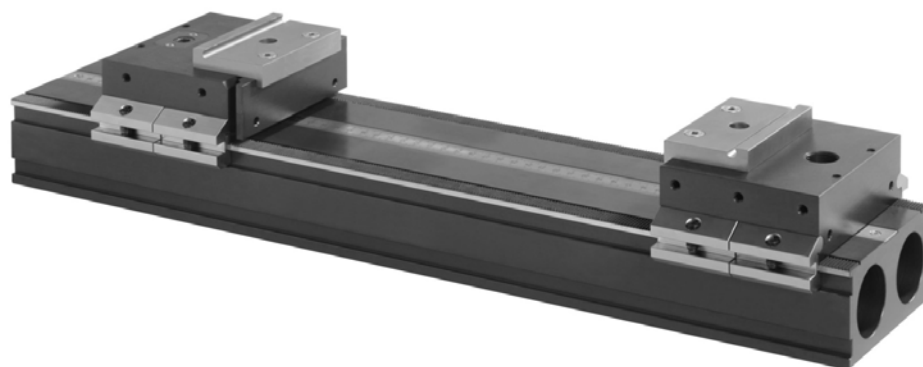
ZERO CLAMP®

Experience precision

Original

Installation and Operating
Instructions

Modular Clamping Rail System SL120 &
SL080



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ZEROCLAMP® Modular Clamping Rail System Installation and Operating Instructions.

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D-82057 Icking

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Issue: 8/3/2017

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1. General matters

1.1 Use of the installation and operating instructions

Dear customer,

Many thanks for deciding to purchase our products. These installation and operating instructions contain useful information allowing you to familiarize yourself with your clamping system before starting to use it for its intended purpose under the specified operating conditions. They contain important instructions to ensure functionally correct and cost-effective installation and operation.

The operating instructions have been created for use by installation, operating and maintenance staff, and must always be kept to hand at the place of use of the clamping system.

You have chosen a high-quality clamping system which operates at extremely high precision.

In the interests of product improvement we reserve the right to make changes in respect of versions, dimensions and materials.

Of course, we remain available to you at all times for after-sales service.

Please contact us using the information set out below.

1.2 Customer Service contact information

ZeroClamp GmbH
Wadlhausen 14
D-82057 Icking, Germany

Tel. +49 (0) 8178-90998-0
info@zeroclamp.com

1.3 Warranty

The warranty is 12 months from the date of delivery from the works, provided the system is used for its intended purpose in 1-shift operation.

These operating instructions supersede any previous versions. The current version of the operating instructions is available for download at: www.zeroclamp.com

1.4 Scope of supply

The scope of supply includes:

- 1x clamping rail of corresponding size
- 1x ruler with two mounting screws (mounted)
- The scope of supply of the Modular Clamping Rail System SL080 with 260 mm length in particular includes support plates (2x), countersunk screws and locating pins (4x each)

1.5 Declaration of conformity

The manufacturer: ZeroClamp GmbH
Wadlhausen 14
D-82057 Icking, Germany

hereby declares that the following products:
Product designation: Modular Clamping Rail System
Type designation: SL120 and SL080

Build year: 2013

comply with the following essential requirements of the **Machines Directive (2006/42/EC)**:

The following standards were applied:

DIN EN ISO 12100	Safety of machinery - General principles for design, risk assessment and risk reduction
ISO 16156	Safety Machine tools safety – Safety requirements for the design and construction of work holding chucks
ISO 19719	Machine tools — Work holding chucks — Vocabulary

The incomplete machine may not be brought into use until it has been incorporated into a machine and the machine into which it has been incorporated satisfies the provisions of the Machines Directive (2006/42/EC).

The manufacturer undertakes on request to communicate by electronic means the special documents relating to the incomplete machine.

The special technical documents relating to the machine were created in accordance with Appendix VII Part B.

Name of the authorized person for documentation: Klaus Hofmann

Address of the authorized person for documentation: see manufacturer's address




Icking,
May 2, 2013
Date

Klaus Hofmann, Managing Director
Signatory and details of signatory


Unterschrift
Signature

2. Safety

2.1 General safety instructions

	<p><i>Warning! For use on the zero point clamping system</i></p> <p>If the forces acting on the clamping rail become too great, due to machining of a workpiece, the clamping stud might be torn from the clamping pot even in the clamped state.</p> <p>Do not overload the zero point clamping system.</p> <p>Make an estimate of the forces to be expected.</p> <p>Use additional safety devices, e.g., monitoring devices and safety guards.</p>
	<p><i>Warning! For use on the zero point clamping system</i></p> <p>The zero point clamping system will only clamp the clamping rail reliably if the clamping stud and the clamping pot lie flat against each other. Even slight impurities between the contact surfaces, or a tilted position will compromise the clamping effect.</p> <p>Furthermore, surface inaccuracies caused by wear will also compromise the clamping effect.</p> <p>Before clamping the pieces, always thoroughly clean the contact surfaces between clamping stud and clamping pot!</p> <p>Verify the exact concentric alignment of clamping stud and clamping pot.</p> <p>Regularly check the clamping force of the zero point clamping system, using a pull-out force tester.</p> <p>Use the subsidiary zero point clamping system for a maximum of 1,000,000 clamping cycles.</p>
	<p><i>Warning!</i></p> <p>When the clamping jaws are actuated, the skin of the fingers or the fingers might be crushed.</p> <p>Do not reach between the clamping jaws, or between the clamping jaw and the workpiece.</p>



Warning!

When the clamping system is fastened, the skin of the fingers or the fingers might be crushed.

Do not reach between the clamping rail and the machine table / zero point clamping system.



Warning!

The clamping rail will only be reliably fastened to the machine table if all contact surfaces are completely clean. Even slight impurities between the contact surfaces, or a tilted position will compromise the clamping effect. Use only original parts, or standard parts that are approved by the manufacturer.

Furthermore, surface inaccuracies caused by wear will also compromise the clamping effect.

Before clamping workpieces, always thoroughly clean the contact surfaces between the clamping rail and the machine table.



Warning! For use on the zero point clamping system

Accidental actuation of the subsidiary zero point clamping system might lead to unintentional releasing of the entire clamping fixture.

Disconnect the zero point clamping system from the compressed air supply before you undertake installation, adjustment, maintenance or set-up work.

During operation, secure the subsidiary zero point clamping system against unintentional releasing by using suitable safety devices for the compressed air supply.



Warning!

Clamping systems might be very heavy.

When you build your own clamping assemblies, make sure that they can be fastened in a suitable way in order to be lifted with handling devices or cranes.

Give particular attention to this point if the clamping systems weigh 20 kg and more.

2.2 Use for the intended purpose

The clamping system must only be used for clamping workpieces.

Use for the intended purpose includes compliance with the conditions specified by the manufacturer in respect of installation, commissioning, operation, ambient conditions and maintenance.

Any use that is not within these conditions ranks as improper use. The manufacturer accepts no responsibility for damage resulting from improper use.

Before using the clamping system in an environment with abrasive dusts, caustic or aggressive vapors or liquids, you must obtain approval by ZeroClamp®.

2.3 Period of use of the subsidiary zero point clamping system

The zero point clamping system mechanism is designed for a maximum life span of 1,000,000 clamping cycles.

2.4 Structural modifications

For reasons of safety, unauthorized changes and modifications of the clamping rail are prohibited! When exchanging defective parts, use only original parts, or standard parts that are approved by the manufacturer.

2.5 Training the operators

The operators must have received instruction on the following topics:

- Functionality and operation of the clamping rail
- Maintaining the clamping forces
- Servicing and cleaning work

All persons responsible for the installation, commissioning and maintenance of the tester must have read and understood the complete operating instructions, especially Section 2 "Safety". We recommend that the operating company obtains signatures to this effect.

Installation, removal, connection and commissioning may be performed only by authorized personnel. Do not use operating techniques which adversely affect the functionality and operational safety of the clamping system.

2.6 Operational environment

The clamping rail system is not suitable for the following operational environments:

- Abrasive dusts,
- Caustic or aggressive liquids and vapors.

3. Technical data

3.1 Clamping forces

Clamping force		Torque Pull-down jaws	Torque Parallel clamping jaws	Torque Duo pull-down jaws (when using both jaws)
SL 080	KN	Nm	Nm	Nm
	5	6.0	5.0	6.0
	10	12.0	10.0	8.0
	15	17.5	15.0	10.0
	20	25.0	20.0	14.0
SL 120	10	17	10	-
	20	30	20	-
	30	50	30	-
	40	-	40	-

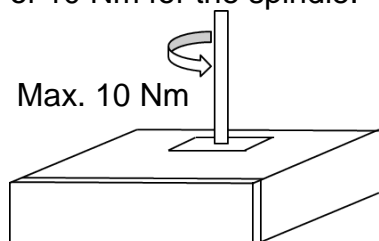


Note:

All values are intended for reference. They are only standard values and do not imply any guarantee (depending on the material).

They are only guaranteed under optimum conditions (clean, greased contact surfaces and threads).

When releasing the parallel clamping jaws, make sure not to exceed an initial torque of 10 Nm for the spindle.



When the tension is released, the initial torque might be greater than 10 Nm. However, the torque will drop again immediately.

The parallel clamping jaws SL080 (from rev. 5) and SL120 (from rev. 4) have the same releasing moments such as the max clamping moments.

3.2 Operating temperature

Minimum	15 °C
Maximum	40 °C


3.3 Sizes and weights

SL120

Length in mm	300	600
Height in mm	60	60
Width in mm	120	120
Order No.:	20254	16221
Weight in kg	9.3	19

SL080

Length in mm	260	400	500	600
Height in mm	35	35	35	35
Width in mm	80	80	80	80
Order No.:	13834	13833	14269	13408
Weight in kg	5.2	7.7	9.7	11.6

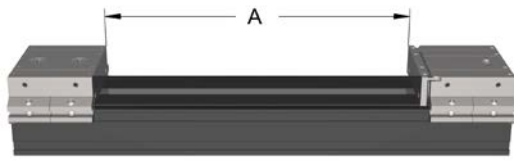
	<p>Warning!</p> <p>The complete clamping system might be very heavy.</p> <p>When you build your own clamping systems, make sure that they can be fastened in a suitable way in order to be lifted with handling devices or cranes.</p>
---	---

3.4 Clamping widths SL120



With pull-down jaw
Jaw stroke 4.5 mm

Clamping rail length in mm	300	600	800
Clamping range in mm	0-90	0-390	0-590



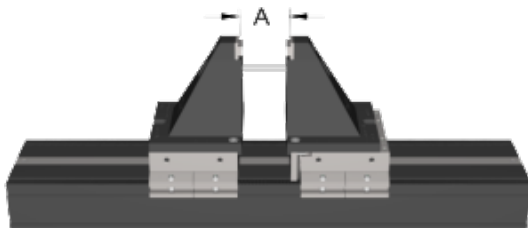
With parallel clamping jaw
Jaw stroke 4 mm

Clamping rail length in mm	300	600	800
Clamping range in mm	0-90	0-390	0-590



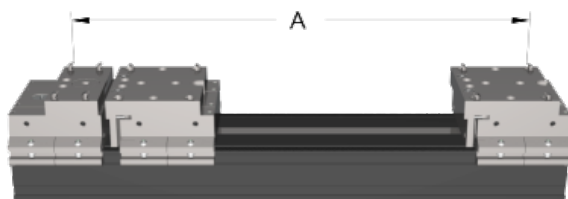
With steel serrated top jaws

Clamping rail length in mm	300	600	800
Clamping range in mm	90-165	90-465	90-665



With base jaw, 5-AXIS

Clamping rail length in mm	300	600	800
Clamping range in mm	10-60	10-60	10-60



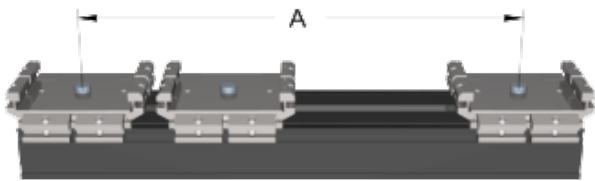
With grip top jaw

Clamping rail length in mm	300	600	800
Clamping range in mm	30-220	30-520	30-720
Clamping range in mm (round material)	> Ø 30	> Ø 30	> Ø 30



With stepped jaw

Clamping rail length in mm	300	600	800
Clamping range in mm	70-160	70-460	70-660



With cross connector

Clamping rail length in mm	300	600	800
Center distance in mm	160-180	160-480	160-680



Note:

When using facing jaws, the clamping widths are reduced.



Warning!

The position of the clamping jaw (with fully retracted clamping mechanism) should be as close as possible to the workpiece that be clamped. A 2 mm grid of the clamping rail is available.

If this are not observed, a lost of clamping force can occur.

3.5 Clamping widths SL080



With pull-down jaw

Pull-down jaw 26 and duo jaw stroke 3.5 mm

Pull-down jaw 48 and 80 jaw stroke 4.0 mm

Clamping rail length in mm	260	400	500	600
Clamping range in mm	0-145	0-285	0-385	0-485



With parallel clamping jaw

Jaw stroke 3.5 mm

Clamping rail length in mm	260	400	500	600
Clamping range in mm	0-135	0-275	0-375	0-475



With cross connector

Clamping rails length in mm	260	400	500	600
Center distance in mm	116-178	116-318	116-418	116-518



Note:

When using facing jaws, the clamping widths are reduced.



Warning!

The position of the clamping jaw (with fully retracted clamping mechanism) should be as close as possible to the workpiece that be clamped. A 2 mm grid of the clamping rail is available.

If this are not observed, a lost of clamping force can occur.

4. Operation

4.1 View



(Fig.: Modular Clamping Rail System SL120)

The Modular Clamping Rail Systems SL120 and SL080 are clamping rail systems that can be used universally and flexibly, due to their wide range of jaw systems. The Modular Clamping Rail Systems are used for the positive-locking clamping of blanks, and of machined workpieces.

Both Modular Clamping Rail Systems can be mounted on conventional machine tables, or on the zero point clamping system by ZeroClamp® GmbH.

For use with the zero point clamping system, special bolts are required (not included in delivery).

4.2 System accuracy

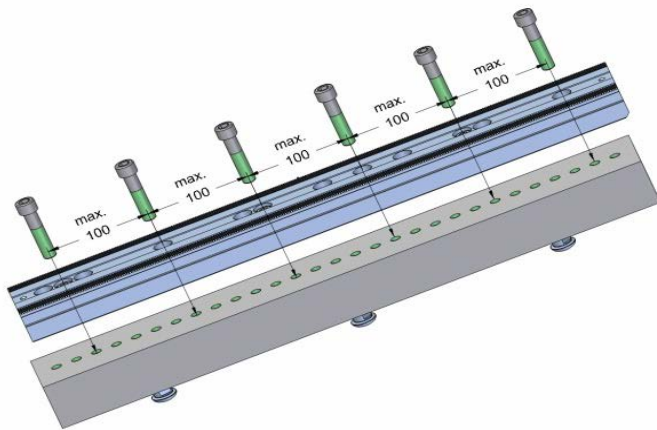
Modular Clamping Rail Systems attain a pairing accuracy of ± 0.03 mm.

4.3 Assembly

The Modular Clamping Rail System must always rest completely on the machine table or on the clamping pots. Therefore, surfaces must be cleaned before fastening. Fasten the clamping rails at two points at least. When using the zero point clamping system, you can also use a clamping point for fastening. In this case, indexing is obligatory in order to prevent twisting of the clamping rail.

However, the manufacturer recommends clamping by at least two pots, because higher torques can thus be accommodated.

In order to prevent sagging with certain types of clamping fixtures, use a suitable supporting structure.

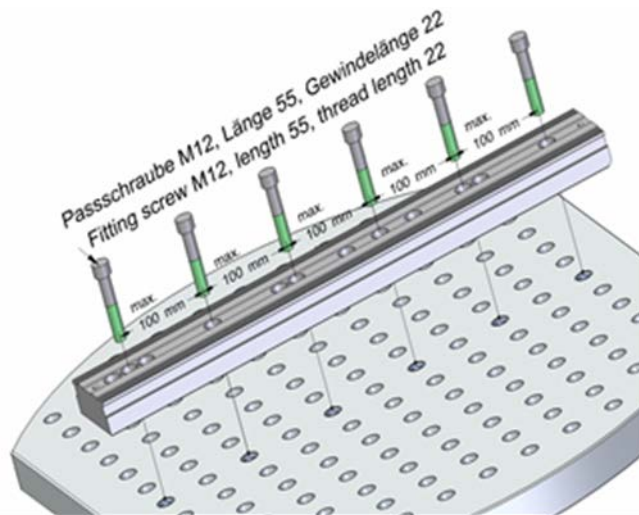


(Fig.: Special supporting structure to prevent sagging)

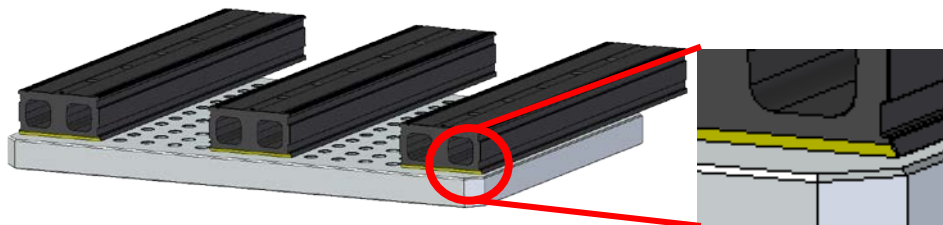
4.3.1 When using on a machine table

The clamping rails can be used both on the zero point clamping system and on the machine table (40 / 50 mm grid).

The appropriate fastening material (Side clamp, Order No. 19296) is not included in the delivery. Use only original parts, or standard parts that are approved by the manufacturer. The rails can also be fastened by means of fitting screws.



(Fig.: Example illustration of SL080 fastened on machine table with fitting screws)



When using several clamping rails in parallel, make sure that the chamfers (5x45) are always positioned on the same side.



Warning!

Clean all contact surfaces thoroughly in order to achieve a precise fit.



Warning!

Fasten the clamping rail on the machine table at two points at least. Use only original parts, or standard parts that are approved by the manufacturer.



Warning!

When the clamping system is fastened, the skin of the fingers or the fingers might be crushed.

Do not reach between the clamping rail and the machine table.

4.3.2 When using on the zero point clamping system

For fastening clamping rails on the zero point clamping system, use only clamping studs by the manufacturer.

The Modular Clamping Rail System can be clamped on all sizes of the zero point clamping system (NP90, NP120, NP138 and/or NP190) by using different types of clamping studs.

Before fastening the clamping rail on the zero point clamping system, open the clamping pots by means of compressed air and remove any impurities. When the clamping rail lies flat on the clamping pots, the compressed air can be removed again. The zero point clamping system is now clamping the clamping rail.

To release the clamping rail, proceed in reverse order.

Generally, the Modular Clamping Rail System should always be fastened by means of two clamping points at least.

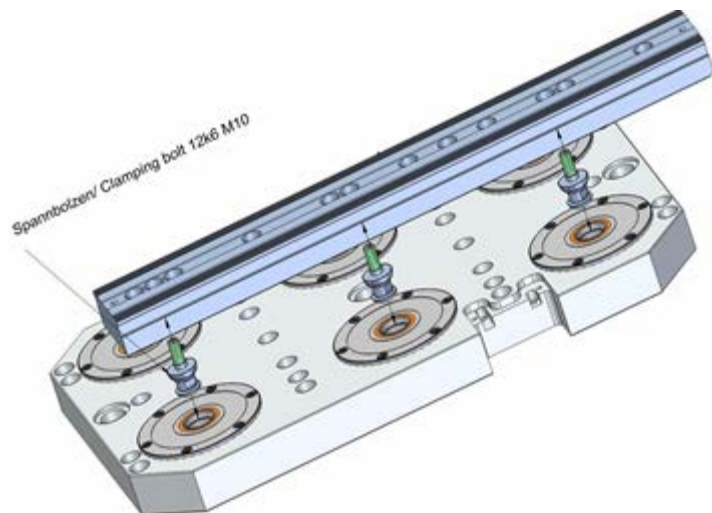
Alternatively, you can fasten it by means of a single clamping point, but only with indexing (see Point 4.3.2.1 Clamping with one pot)

Modular Clamping Rail System SL120:

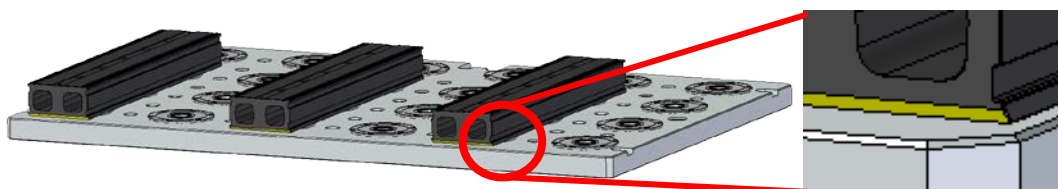
All fastening bolts with bore pattern M16

Modular Clamping Rail System SL080:

All fastening bolts with bore pattern M10



(Fig.: Example illustration SL080 from base unit)



When using several clamping rails in parallel, make sure that the chamfers (5x45) are always positioned on the same side.



Warning!

Clean all contact surfaces thoroughly in order to achieve a precise fit.



Warning!

When the clamping system is fastened, the skin of the fingers or the fingers might be crushed in the clamping system of the zero point clamping system.

Do not reach into the clamping stud socket of the clamping pots.



Warning!

Accidental actuation of the zero point clamping system might lead to unintentional releasing of the clamping fixture.

Disconnect the zero point clamping system from the compressed air supply before you undertake installation, adjustment, maintenance or set-up work.

During operation, secure the zero point clamping system against unintentional releasing by using suitable safety devices for the compressed air supply.



Warning!

If the forces acting on the clamping rail become too great, due to machining of a workpiece, the clamping stud might be torn from the clamping pot even in the clamped state.

Do not overload the zero point clamping system.

Make an estimate of the forces to be expected.

Use additional safety devices, e.g., monitoring devices and safety guards.



Warning!

In addition, observe the installation and operating instructions of the zero point clamping system.

A current version is available at www.zeroclamp.com.



Note:

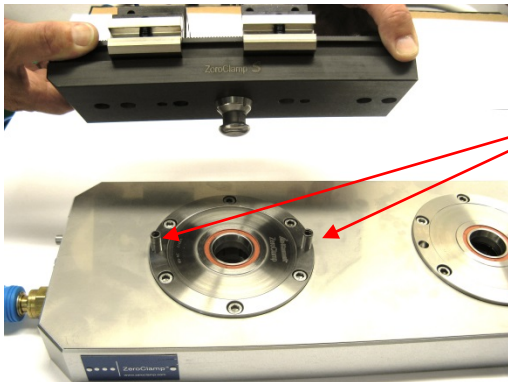
The manufacturer recommends fastening the rail by at least two clamping points, because higher torques can thus be accommodated compared to the use of indexing.

4.3.2.1 Clamping by one pot

Generally, the Modular Clamping Rail System should always be fastened by means of two clamping pots at least. However, in case of the Modular Clamping Rail System SL080 with 260 mm length, many workpieces can be clamped by a single clamping point.

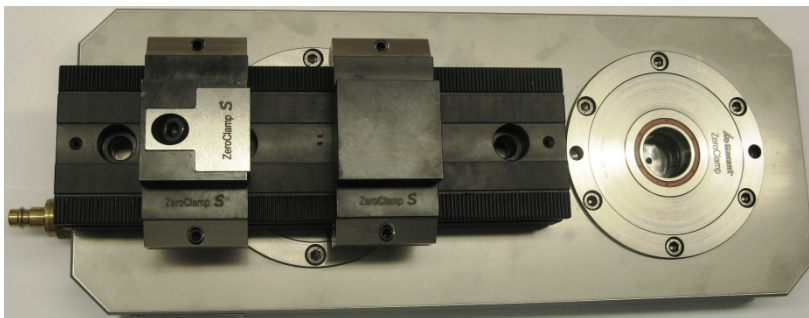
For this purpose, two types of clamping fixtures are available.

Clamping by one pot, with indexing



Use only with 2 indexing pins. Insert pins into the pot. Then put the clamping rail in position.

The indexing pins protect the clamping fixture against turning.



(Fig.: SL080 on clamping pot, with indexing)



Warning!

Clean all contact surfaces thoroughly in order to achieve a precise fit.



Warning!

If the forces acting on the clamping rail become too great, due to machining of a workpiece, the clamping stud might be torn from the clamping pot even in the clamped state.

Do not overload the zero point clamping system.

Make an estimate of the forces to be expected.

Use additional safety devices, e.g., monitoring devices and safety guards.



Warning!

When the clamping system is fastened, the skin of the fingers or the fingers might be crushed in the clamping system of the zero point clamping system.

Do not reach into the clamping stud socket of the clamping pots.



Warning!

Accidental actuation of the zero point clamping system might lead to unintentional releasing of the clamping.

Disconnect the zero point clamping system from the compressed air supply before you undertake installation, adjustment, maintenance or set-up work.

During operation, secure the zero point clamping system against unintentional releasing by using suitable safety devices for the compressed air supply.



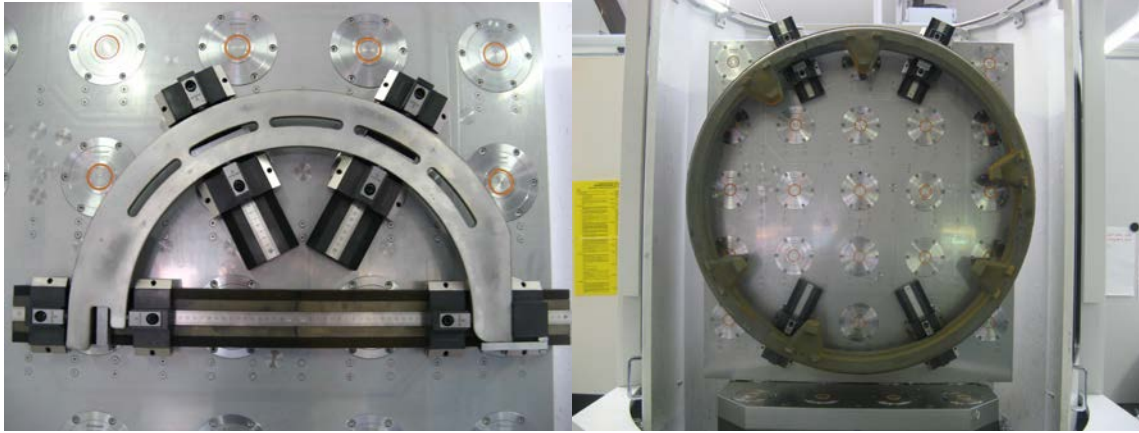
Warning!

In addition, observe the installation and operating instructions of the zero point clamping system.

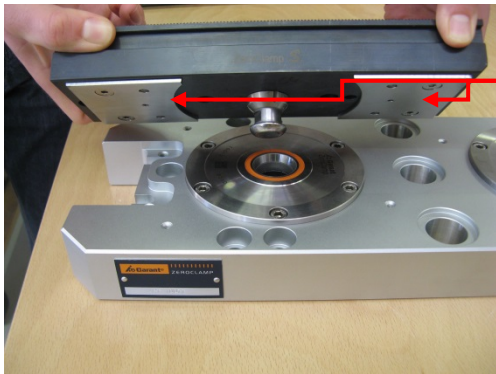
A current version is available at www.zeroclamp.com.

Flexible clamping of complex workpieces

If a complex workpiece is to be clamped by several rails, you can clamp the clamping rail on a pot in a way that it can be rotated (without indexing). This allows the clamping of e.g. flame cuts and cast parts.



(Fig.: Clamping examples)



In case of rotatable clamping, the manufacturer recommends the use of supporting plates. These plates absorb additional forces, and provide a firm seat on the clamping pot. The plates can be used only with the clamping rail system SL080 with 260 mm length. When ordering a clamping rail with 260 mm length, the supporting plates are included in the delivery.



Warning!

When clamping parts, make sure that the workpiece cannot twist inside or together with the clamping fixture. The zero point clamping system without indexing is not capable of absorbing any torques. Therefore, always use at least two or more clamping rails or clamping pots with indexing in order to prevent twisting.

It is not enough just to use two clamping rails to prevent a twisting of the clamping fixture. The clamping rails also must be positioned in the proper way.



Warning!

Clean all contact surfaces thoroughly in order to achieve a precise fit.



Warning!

If the forces acting on the clamping rail become too great, due to machining of a workpiece, the clamping stud might be torn from the clamping pot even in the clamped state.

Do not overload the zero point clamping system.

Make an estimate of the forces to be expected.

Use additional safety devices, e.g., monitoring devices and safety guards.



Warning!

When the clamping system is fastened, the skin of the fingers or the fingers might be crushed in the clamping system of the zero point clamping system.

Do not reach into the clamping stud socket of the clamping pots.



Warning!

Accidental actuation of the zero point clamping system might lead to unintentional releasing of the clamping.

Disconnect the zero point clamping system from the compressed air supply before you undertake installation, adjustment, maintenance or set-up work.

During operation, secure the zero point clamping system against unintentional releasing by using suitable safety devices for the compressed air supply.



Warning!

In addition, observe the installation and operating instructions of the zero point clamping system.

A current version is available at www.zeroclamp.com.



Note:

More case examples and videos can be found at www.zeroclamp.com

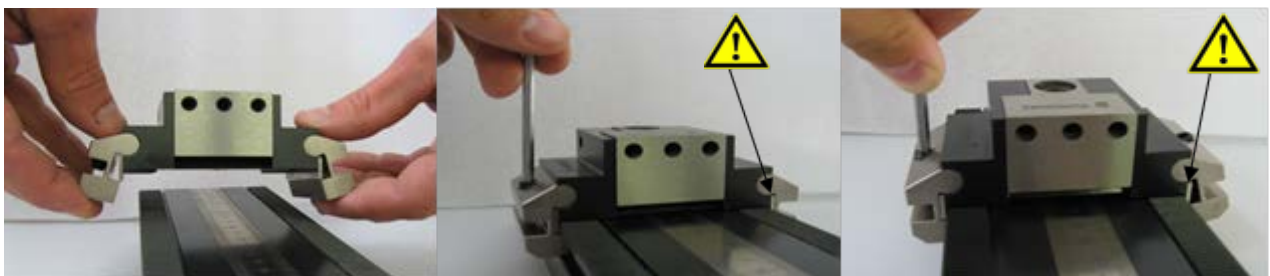
4.3.3 Fastening of a clamping jaw

Clamping jaws are coated with an anti-corrosion wax coating. During initial use, more force may therefore be required to operate the clamping mechanism. This is not a quality flaw.

The protective wax coating can be removed by spraying with fine oil and then wiping it off. Do not use any pointed or sharp objects to remove the wax coating.

All jaws can be fastened on the clamping rail rapidly, in a variety of ways, by means of the lateral clamping brackets. Never combine jaws from the two different systems. Only use clamping jaws that belong to the appropriate system.

Clamping jaws can be positioned in a 2 mm pitch. They can be pre-positioned by means of a ruler on the upper side.



Fold clamping brackets to the side, and place them to their position

Fold in both clamping brackets to the stop, and tighten both screws to **min. 15 Nm, max. 16 Nm**

Loosen both screws. Fold brackets to the side, lift them off and place them to their new position



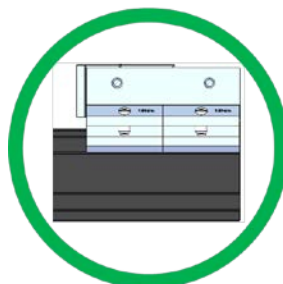
Warning!



Clean all contact surfaces thoroughly in order to achieve a precise fit.



Warning!

All clamping brackets must be fully folded in and clamped. They must not protrude. An incorrect seat might lead to unintentional releasing of the entire clamping fixture.



	<p><i>Warning!</i></p> <p>When the clamping brackets are fastened, the skin of the fingers or the fingers might be crushed.</p> <p>Do not reach between the clamping jaws, or between the clamping jaw and the workpiece.</p>
	<p><i>Warning!</i></p> <p>If the forces acting on the clamping rail become too great, due to machining of a workpiece, the clamping fixture might be damaged.</p> <p>Do not overload the entire clamping system.</p> <p>Make an estimate of the forces to be expected.</p>

4.4 Tools required

Actuating the clamping jaws:

SL120: Allen key SW 8

SL080: Allen key SW 6

Fastening the clamping brackets:

Allen key SW 4 (identical for both jaw systems)

5. Accessories

A wide range of jaws and other accessories is available for the Modular Clamping Rail Systems.

Use only original parts, or standard parts that are approved by the manufacturer. For a detailed description of available accessories, see the current catalog or www.zeroclamp.com.



Note:

All products are subject to continuous further development.

Current accessories or modifications will be announced in time by the manufacturer at www.zeroclamp.com.



Warning!

When the clamping system is actuated, the skin of the fingers or the fingers might be crushed on the clamping jaws.

Do not reach between the clamping jaws, or between the clamping jaws and the workpiece.



Warning!

Clean all contact surfaces thoroughly in order to achieve a precise fit.



Warning!

The complete clamping system might be very heavy.

When you build your own clamping systems, make sure that they can be fastened in a suitable way in order to be lifted with handling devices or cranes.

5.1 Accessories SL120

5.1.1 Side clamp

For conventional fastening of the clamping rail on the machine table.



Order No.: 19296 (Set: including 6 pieces)

5.1.2 Parallel clamping jaw



Order No.: 15289

5.1.3 Pull-down jaw



Order No.: 16233

5.1.4 Fixed jaw



Order No.: 15342

5.1.5 Cross connector



Order No.: 16736

5.1.6 Stepped jaw



Order No.: 18575

5.1.7 Clamping pot socket



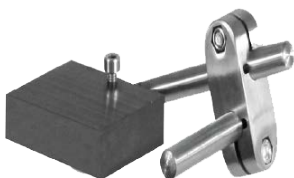
Order No.: 16240

5.1.8 Serrated top jaw, steel



Order No.: 17099

5.1.9 Magnetic workpiece stop



Order No.: 17908

5.1.10 Base jaw, 5-AXIS (pair)



Order No.: 15339

5.1.11 Grip facing jaw (pair)



Grip height in mm	3.3	4.8
Order No.:	15341	20373

5.1.12 Base jaw with pivot function



Order No.: 15348

5.1.13 Fixed base jaw



Order No.: 15345

5.1.14 Grip insert



Grip height in mm	1.8	3.8
Order No.:	17898	20268

5.1.15 Clamping insert, smooth



Order No.: 21099

5.1.16 Grip facing jaw



Order No.: 17093

5.1.17 HM facing jaw

Coated steel jaw



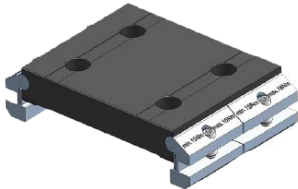
Order No.: 17897

5.1.18 Magnetic Strip



Size width/height in mm	120/10	120/20	120/30	120/38
Order No.:	19391	19392	19393	19394

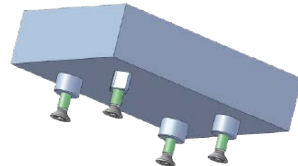
5.1.19 Base jaw



Order No.: 20765

5.1.20 Top jaws

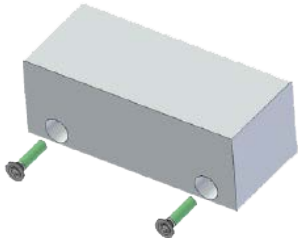
For own production of mold jaws (to fit on base jaw)



Material	Aluminum		Steel	
Version	1	½	1	½
Order No.:	20778	20768	20780	20769

5.1.21 Facing jaws

For own production of mold jaws (to fit on parallel clamping jaws)

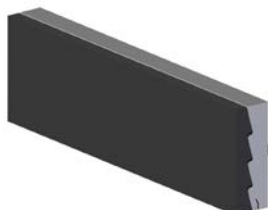


Material	Aluminum	Steel
Order No.:	20767	20766

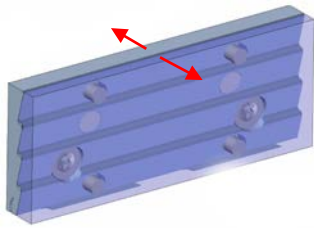
5.1.22 Pull-down facing jaw

The pull-down facing jaw can be used on fixed and parallel clamping jaws of size 120.

It prevents the lifting off of the clamped workpiece.



Order No.: 22236



Fasten the facing jaw to the fixed or parallel clamping jaw by means of two Torx M6x16 screws (included in delivery). For this purpose, separate the facing jaw and then reassemble it. During this procedure, the facing jaw is held by magnets, tension springs and cylindrical pins.

To open the jaw, fold out the two halves (see Fig.). The tension springs need not be removed for this. Avoid damaging the jaw; do not use any pointed or sharp objects.



Warning!

After opening the jaw, clean all contact surfaces thoroughly. Make sure that all components are in their correct position.

5.2 Accessories SL080

5.2.1 Side clamp

For conventional fastening of the clamping rail on the machine table.



Order No.: 19296 (Set including 6 pieces)

5.2.2 Pull-down jaw 26



Order No.: 13930

5.2.3 Pull-down jaw 26 Duo



Order No.: 13934

5.2.4 Pull-down jaw 48



Order No.: 13411

5.2.5 Pull-down jaw 80



Order No.: 14274

5.2.6 Parallel clamping jaw 48



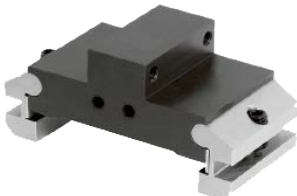
Order No.: 13410

5.2.7 Parallel clamping jaw 80



Order No.: 14536

5.2.8 Fixed jaw 26



Order No.: 14369

5.2.9 Fixed jaw 48



Order No.: 13412

5.2.10 Fixed jaw 80



Order No.: 14280

5.2.11 Form-fit jaw



Order No.: 13936

5.2.12 Centering clamping fixture

Observe the separate installation and operating instructions on www.zeroclamp.com



Order No.: 21838

5.2.13 Base jaw



Order No.: 14131

5.2.14 Cross connector



Order No.: 15421

5.2.15 Grip and HM facing jaw

Coated steel jaw



(Fig.: Grip facing jaw 26 Order No.: 14482
and HM facing jaw 80 Order No.: 14373)

Size	26	48P	48NF	80
Grip Order No.:	14482	14565	14480	14484
HM Order No.:	14371	14576	14364	14373
48P = for parallel clamping jaw				
48NF = for pull-down and fixed jaw				

5.2.16 Serrated facing jaw



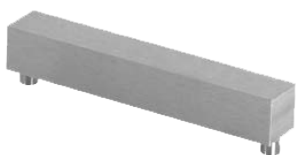
Order No.: 17010

5.2.17 Magnetic Strip 74



Size width/height in mm	74/10	74/15	74/20	74/25	74/30
Order No.:	14189	13575	14312	14314	14121

5.2.18 Magnetic Strip 94



Size width/height in mm	94/10	94/15
Order No.:	14006	13576

5.2.19 Workpiece stop



(Fig.: Fixed workpiece stop)

	Fixed	Adjustable	Magnetic
Order No.:	14119	14120	14116

5.2.20 Facing jaw

For own production of mold jaws (to fit on parallel clamping jaw)



(Fig.: Top jaw, steel 80)

Material	Aluminum		Steel	
Version	48	80	48	80
Order No.:	14586	14590	14584	14588

5.2.21 Top jaw

For own production of mold jaws (to fit on base jaw)



(Fig.: Top jaw, steel)

Material	Aluminum	Steel
Order No.:	14134	14346

5.2.22

5.2.23 Supporting plate

For clamping rail with 260 mm length.

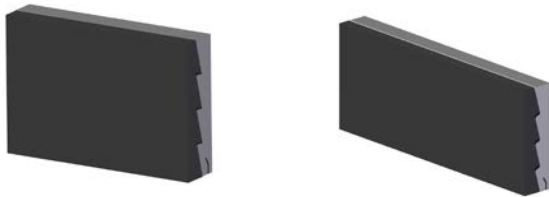


Order No.: 20132 (Set: including fastening material and two supporting plates)

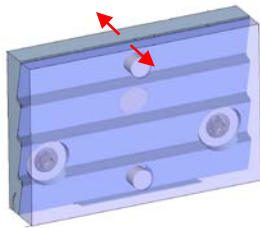
5.2.24 Pull-down facing jaw

The pull-down facing jaw can be used on fixed and parallel clamping jaws of sizes 48 or 80.

It prevents the lifting off of a clamped workpiece.



	Pull-down facing jaw 48	Pull-down facing jaw 80
Order No.:	21107	22233



Fasten both facing jaws to the fixed or parallel clamping jaw by means of two Torx M4x10 screws (included in delivery). For this purpose, separate the facing jaw and then reassemble it. During this procedure, the facing jaw is held by magnets, tension springs and cylindrical pins.

To open the jaw, fold out the two halves (see Fig.). The tension springs need not be removed for this. Avoid damaging the jaw;

do not use any pointed or sharp objects.



Warning!

After opening the jaw, clean all contact surfaces thoroughly. Make sure that all components are in their correct position.

6. Spare parts

In case of damages to the Modular Clamping Rails or to clamping jaws, contact the manufacturer in order to perform an accurate damage analysis.

7. Maintenance operations

The clamping rail is generally maintenance-free.

Only the gaps of the clamping rail gears and of the jaws need to be cleaned of deposits and dirt before fitting.



Clean and lubricate the clamping devices once a week.

During and after spraying, keep operating the clamping mechanism in order to distribute the lubricant evenly.

If the clamping jaw is permanently used in cooling lubricant, it is recommended to clean and lubricate the mechanics several times a week.

7.1 Extraction of liquids

For the extraction of liquids, you can use commercial extraction devices.

7.2 Cleaning and care

Approved cleaning and care agents:

- WD 40
- Ballistol
- Hebro Multiplus


Prohibited cleaning and care agents:

- Acids
- Lyes
- aggressive media
- not approved cleaning and care agents

7.3 Storage

To prevent the formation of a rust film, the manufacturer recommends to clean the clamping bars and clamping jaws thoroughly before storage, and to oil all surfaces and the clamping mechanism. Before longer storage, it is recommended to apply anti-corrosion wax. The wax can be removed again by spraying with fine oil and wiping it off.


8. Residual risks

	Description of risk	Minimization of risk
	Disregard of safety instructions	Training the staff about the hazards

9. Concluding remarks

The product is subject to continuous further development, and ZeroClamp GmbH reserves the right to make technical changes.

Wherever possible, these will be compatible with previous versions. The portfolio of accessories is also being constantly expanded and complemented.

	<p><i>General instruction</i></p> <p>When using the Modular Clamping Rail System, observe in addition all safety instructions and other instructions regarding all systems used.</p> <p>The installation and operating instructions of the subsidiary system are available for download. www.zeroclamp.com</p>
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11. Appendix