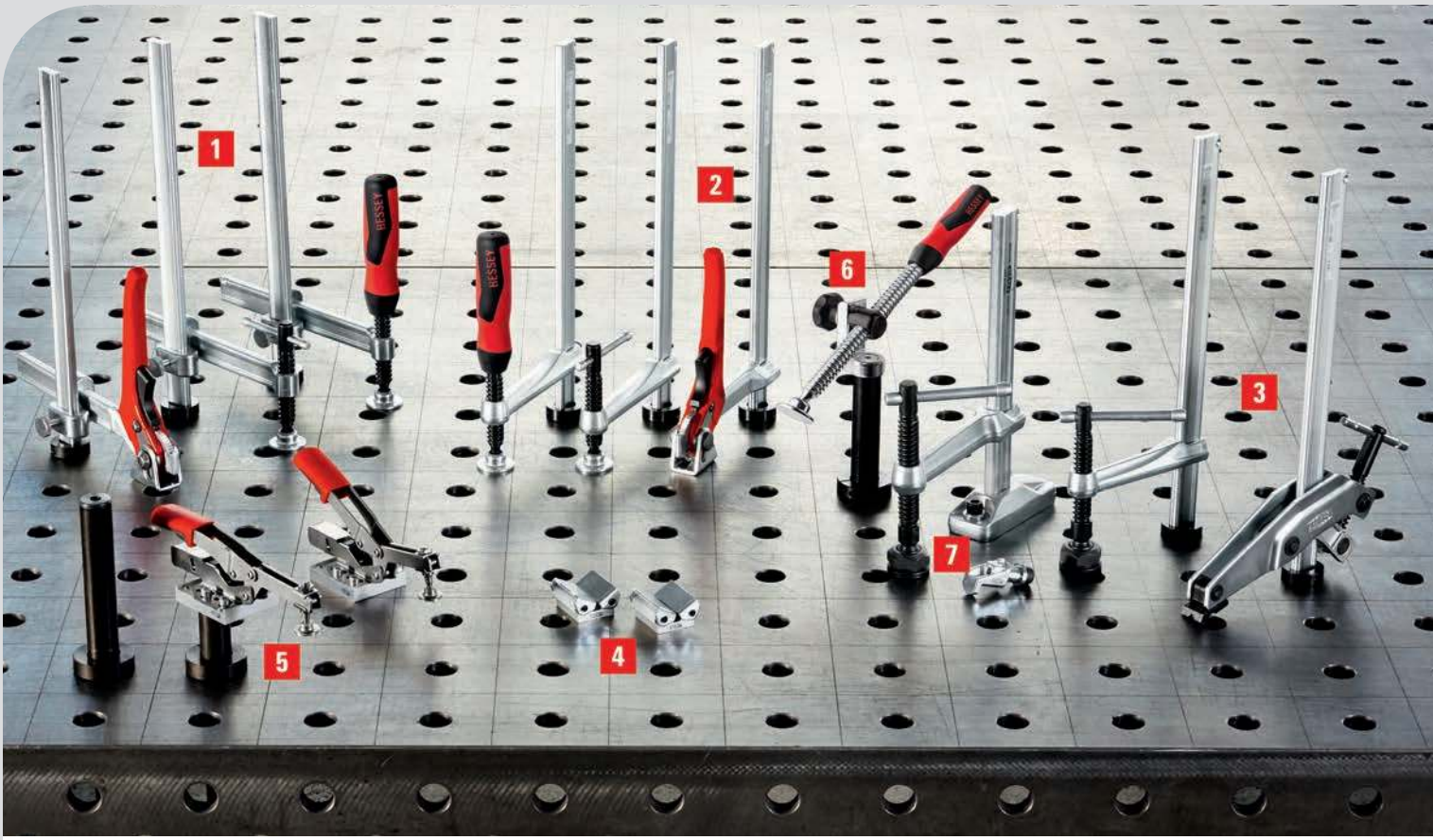
BESSEY®

Simply better.

Innovations to make welding easier

Bringing our experience to the table



Your benefits at a glance:

1 **Flexible throat depth**
BESSEY TWV clamping elements for welding tables not only have infinitely adjustable throat depth, but are also available in three handle variants.

2 **100, 120 or 140 mm throat depth**
On BESSEY TW clamping elements, you can choose among three handle variants and three throat-depth variants.

3 **Heavy-duty, custom design**
The TWM28 clamping element has a heat-resistant special pressure plate with sintered steel insert, which can be pivoted up to 35°. On the TW28GRS gripping arm variant the spindle is located on the outside, which enables – among other things – free access to the work area.

4 **Perfect for railings**
Whether the workpiece is round, oval or square, the TWVAD Vario table clamping attachments are ideally suited; this is because they can be infinitely adjusted to the workpiece being welded, from 60° internal to 60° external.

5 **Applying the quick clamp**
Thanks to the TWA-STC adapter and the appropriate TWX extension, BESSEY toggle clamps with a horizontal base plate can also be rapidly applied to welding tables.

6 **Diagonal und horizontal clamping**
The tilting adaptor TW28AV used in conjunction with the extension TW28X allows angled or horizontal clamping in a range from -52 deg. to +52 deg.

7 **Existing work table clamps**
Are you already using BESSEY work table clamps and want to also use them on your welding table? This is made possible by simply screwing the TW28HO attachment into the hole on the bottom of the work table clamp.

YouTube

3D CAD data for dowload at www.bessey.de

Clamping elements for welding tables

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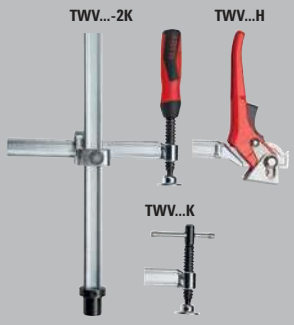


Clamping element with variable throat depth TWV

Order-No.	Ø	Clamping height max.	Throat depth	Rail			
	mm	mm	mm	mm	kg	qty.	V3
TWV16-20-15-2K	16	200	30-150	22 x 8.5	1.20	1	
TWV16-20-15K	16	200	30-150	22 x 8.5	1.04	1	
TWV16-20-15H	16	200	60-150	22 x 8.5	1.21	1	
TWV28-30-17-2K	28	300	40-175	28 x 11	2.22	1	
TWV28-30-17K	28	300	40-175	28 x 11	2.11	1	
TWV28-30-17H	28	300	110-175	28 x 11	2.48	1	

- TWV16: Clamping force up to 2,500 N
  TWV28: Clamping force up to 5,500 N
- TW16: Clamping force up to 3,000 N
  TW28: Clamping force up to 5,000 N
- Precise, individual clamping
- Tempered profile and sliding arm for sprung and elastic clamping
- Infinitely adjustable throat depth (at TWV)

Clamping element with fixed throat depth TW

Order-No.	Ø	Clamping height max.	Throat depth	Rail			
	mm	mm	mm	mm	kg	qty.	V3
TW16-20-10-2K	16	200	100	22 x 8.5	0.93	1	
TW16-20-10K	16	200	100	22 x 8.5	0.86	1	
TW16-20-10H	16	200	100	22 x 8.5	1.01	1	
TW28-30-12-2K	28	300	120	28 x 11	1.68	1	
TW28-30-14-2K	28	300	140	28 x 11	1.70	1	
TW28-30-12K	28	300	120	28 x 11	1.62	1	
TW28-30-14K	28	300	140	28 x 11	1.65	1	
TW28-30-12H	28	300	120	28 x 11	2.07	1	
TW28-30-14H	28	300	140	28 x 11	2.10	1	

Various design versions:
- High quality 2-component plastic handle and tommy bar with rounded ends – each with smooth-running trapezoidal threaded spindle and tool-free pressure plate replacement
- Lever handle with an indexing mechanism for controlled, fast and vibration-proof clamping

Clamping element with special pressure plate TWM28

Order-No.	Ø	Clamping height max.	Throat depth	Rail			
	mm	mm	mm	mm	kg	qty.	V3
TWM28-30-12	28	300	120	28 x 11	1.78	1	

- Clamping force up to 6,500 N
- Precise, individual clamping
- Tempered profile and sliding arm for sprung and elastic clamping
- Tempered spindle – particularly sturdy and wear-resistant – for noticeably improved service life
- Long life due to heat-resistant pressure plate with sintered steel insert, which can

Special pressure plate

Order-No.	Description	
		V3
3100736	Standard	
3101192	Serrated	
3101193	V-grooved	

- Long life due to heat-resistant pressure plate with sintered steel insert, which can be tilted up to 35°

Three design versions:
- Smooth faced (standard version)
- Rough faced for secure clamping on dirty surfaces
- V-groove face for round, oval and edged workpieces

Clamping elements for welding tables

- Clamping force up to 5,000 N
- The spindle is located on the outside for free access to the work area and to protect against welding spatter
- Special, sturdy V-grooved pressure plate, ideal even for clamping round or square workpieces
- Pivotable and infinitely adjustable in terms of height
- Particularly suited to clamping with the tightest of space constraints, in narrow openings as well as for short projections

Clamping element with gripping arm TW28GRS

Order-No.	Ø	Clamping height max.	Throat depth	Rail			
	mm	mm	mm	mm	kg	qty.	V3
TW28GRS30-12	28	300	120	28 x 11	2.33	1	

- Specifically adapted to round, oval and square workpieces
- Angle infinitely adjustable from 60° internal to 60° external

Various design versions:
- TW16VAD/TW28VAD – version with bolt – for rapidly aligning and fixing the workpiece to the welding table
- TWVAD – version without bolt – for variable movement on the welding table

TW16VAD/ TW28VAD

TWVAD

Vario table clamping attachment TWVAD (2 pcs./bag)

Order-No.	Ø	Angle	Jaw face width			
	mm		mm	kg	qty.	V3
TW16VAD	16	from 60° inner to 60° outer	45	0.38	1	
TW28VAD	28		45	0.57	1	
TWVAD	–		45	0.28	1	

- Accessory for BESSEY STC toggle clamp with horizontal base plate
- With bolt – for use directly on the welding table
- Without bolt – for screwing to the extension TWX

Toggle clamp adapter TWA-STC

Order-No.	Ø	Suitable for			
	mm		kg	qty.	V3
TW16A-STC	16	STC-HH / STC-IHH / STC-VH	0.19	1	
TW28A-STC	28		0.28	1	

- Accessory for BESSEY toggle clamp adapter TWA-STC, TWVAD and TW28AV
- Lowering of round workpieces is infinitely adjustable using the adjusting ring in the table

TWX

TWX + TWA-STC + STC-HH

Extension TWX

Order-No.	Ø	Suitable for	Adjusting range			
	mm		mm	kg	qty.	V3
TW16X	16	TW16A-STC / TW16VAD / TWVAD	15-200	0.41	1	
TW28X	28	TW28A-STC / TW28VAD / TWVAD / TW28AV	15-300	1.76	1	

Clamping elements for welding tables

Simply better.

Tilting adapter TW28AV

Order-No.	Ø	Opening	Suitable for			
	mm	mm		kg	qty.	V3
TW28AV	28	160	TW28X	1.02	1	

- Clamping force up to 3,000 N
- Accessory for BESSEY extension TW28X
- Pivoting spindles with stepless adjustment from -52° to +52°
- Lockable trapezoidal nut for secure fastening of the workpiece
- High quality, 2-component plastic grip with long spindle

Attachment TW28HO

Order-No.	Ø	Suitable for			
	mm		kg	qty.	V3
TW28HO	28	BAS-C / BAS-CB / BASO / BSN / GRS / BSG	0.14	1	

- Accessory for BESSEY work table clamp
- It can be used on welding tables by simply screwing it to the work table clamp

Even more flexible clamping up to 5-times faster

YouTube

Uncompromisingly versatile

One size of the BESSEY toggle clamp replaces multiple competitor sizes simultaneously:

- due to an extremely large clamping range, thanks to the patented mechanism

Ready to go – the first time and for quick set-up during workpiece changes

BESSEY STC toggle clamps adapt to workpieces of varying thickness – without manual setting of the spindle and, with practically the same clamping force:

- due to an automatic clamping width range

Powerful and gentle

Even sensitive workpieces, e. g. with veneered or varnished surfaces, can be gently clamped:

- due to moving pressure plate with removable protective cap
- due to clamping force regulation via adjustment screw in the joint

Self-adjusting toggle clamps

STC-HH20

STC-HH50

STC-HH70

Horizontal toggle clamp with open arm
STC-HH

Order-No.	Opening	Automatic adjustment	Clamping force			
	mm	mm	appr. N	kg	qty.	V3
with horizontal base plate						
STC-HH20	35	20	1,100	0.20	6	
STC-HH20SB	35	20	1,100	0.20	3	
STC-HH50	40	35	2,500	0.38	6	
STC-HH50SB	40	35	2,500	0.38	3	
STC-HH70	60	35	2,500	0.42	6	
STC-HH70SB	60	35	2,500	0.42	3	

STC-IHH15

STC-IHH25

Push/pull clamp
STC-IHH

Order-No.	Opening	Automatic adjustment	Clamping force			
	mm	mm	N	kg	qty.	V3
with horizontal base plate						
STC-IHH15	25	8	1,100	0.19	6	
STC-IHH25	35	13	2,500	0.45	6	
STC-IHH25SB	35	13	2,500	0.46	3	

STC-VH

Vertical toggle clamp with open arm
STC-VH

Order-No.	Opening	Automatic adjustment	Clamping force			
	mm	mm	appr. N	kg	qty.	V3
with horizontal base plate						
STC-VH20	35	20	1,100	0.22	6	
STC-VH50	40	35	2,500	0.43	6	

3D CAD data for download at http://bessey.partcommunity.com and/or www.bessey.de

You will find accessories on page 4

BESSEY®
Simply better.

- Automatic and infinitely variable adjustment of the clamping height while clamping force remains unchanged – without having to make manual changes to the position of the pressure screws
- Adjustable clamping force based on the adjusting screw in the joint
- Sturdy, tempered metal sheets for a long service life
- Base plate hole pattern suitable for millimetres and inches
- High-quality oil-resistant two-component plastic handle

Instant and easy to apply clamping force

Your benefits at a glance:

1 **Flexible in application**
The work table clamps BS, BSG and the claw machine clamp GRS can be tilted and are infinitely adjustable.

2 **Rapid in application**
The BS identifies a lever mechanism that facilitates quick clamping and releasing.

3 **In the tightest space**
When unobstructed access to the work area is a requirement or when clamping has to be done in confined spaces, the claw machine clamp GRS provides the necessary function thanks to an externally-positioned spindle.

4 **Special tilting pressure plate**
The BSG work table clamp has a heat-resistant pressure plate which is replaceable and can be tilted up to 35° so it can even clamp on angled or sloping surfaces. It has an extremely long service-life due to the oil-soaked sintered steel insert's excellent sliding and emergency running properties.

Machine table clamps

Simply better.

Hold down table clamp BS

Order-No.	Clamping height max.	Throat depth	Rail	Fixing screw hole Ø			
	mm	mm	mm	mm	kg	qty.	V3
BS2N	200	100	19.5 x 9.5	10.5	1.35	1	
BS3N	200	120	22 x 10.5	13	1.55	1	
BS4N	200	120	28 x 11	16.5	2.65	1	
BS5N	240	140	30 x 15	16.5	3.30	1	
BS6N	500	140	30 x 15	16.5	4.00	1	

- Clamping force up to 10,000 N
- Tilting and infinitely height-adjustable
- For drilling and light milling work
- Lever mechanism for rapid clamping and release

Claw machine clamp GRS

Order-No.	Clamp. height max.	Throat depth	Rail	Fixing screw hole Ø			
	mm	mm	mm	mm	kg	qty.	V3
GRS20-12	200	123-140	28 x 11	16.5	2.81	1	

- Clamping force up to 7,500 N
- Swivelling, vertically infinitely adjustable clamp
- Externally-positioned spindle to allow unobstructed access to the work area and clamping in confined spaces
- For drilling and light milling work

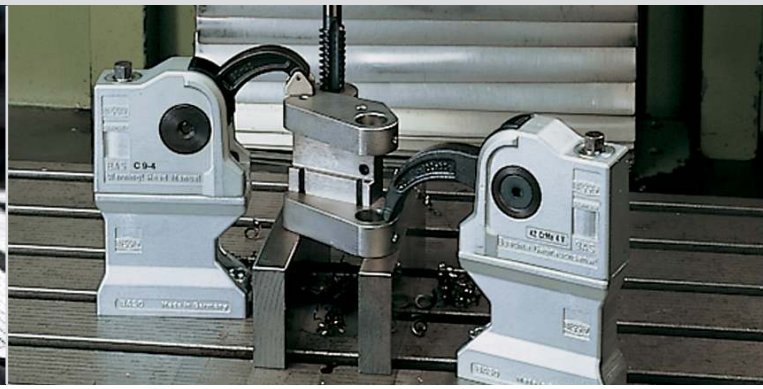
Hold down table clamps BSG

Order-No.	Clamping height max.	Throat depth	Rail	Fixing screw hole Ø			
	mm	mm	mm	mm	kg	qty.	V3
BSG21-14	210	140	30 x 15	16.5	3.22	1	

- Clamping force up to 12,000 N
- For fastening to tables and other equipment
- Long life due to heat-resistant pressure plate with sintered steel insert, which can be tilted up to 35°

3D CAD data for download at www.bessey.de
You will find accessories on page 5

With extra-high clamping pressure, space saving design



Your benefits at a glance:

1 **Housings and clamping arms made from tempered stainless steel**
BAS clamps are approx. 30 % smaller than comparable tools made by competitors and still provide the same high clamping forces. At a perpendicular to the jaw face, the self-locking worm gear unit exerts up to 16,000 N.

2 **Clamping arm variants with polyamide seal**
To provide for gentle clamping with optimum weight distribution, the short and long clamping arms of the BAS models are equipped with a swivelling aluminium pressure shoe. And when clamping has to be done in corners, BSP models equipped with a pointed clamping arm are the perfect tools. A special polyamide seal protects the interior against dirt.

3 **Open or closed fastening holes**
Models with an open hole can be clamped and unclamped more quickly. In closed versions, the screw, nut and clamp form a unit. All BAS clamps are easily fastened and released – thanks to the T bar wrench with an integrated hexagon ball head.

4 **Space saving and adjustable**
The compact design, both in height and surface requirements, distinguishes all of the models. Clamping height can be increased progressively in 80 mm steps with the BESSEY BASO base unit. When using more than one base unit, care must be taken to provide precise workpiece contact surfaces.

Machine table clamps

Simply better.

BAS-C compact clamp, fixing hole open

BAS-C9-4
BAS-C10-6
BSP-C10-6

Order-No.	Opening	Throat depth			
	mm	mm	kg	qty.	V3
BAS-C9-4	88	40	1.30	1	
BAS-C10-6	97	60	1.30	1	
BSP-C10-6	97	60	1.30	1	

- Clamping force up to 16,000 N
- Space-saving construction, thus up to 30% smaller than comparable competitive models
- Housing and pressure arm made from hardened and tempered stainless steel, making it extremely robust and durable
- Available in three pressure arm versions: Short and long pressure arm with swivelable aluminium pressure shoe or pointed pressure arm for clamping on narrow sections or in confined spaces
- BAS-C with open fixing hole and BAS-CB with closed fixing hole for M10/M12

BAS-CB compact clamp, fixing hole closed

BAS-CB9-4
BAS-CB10-6
BSP-CB10-6

Order-No.	Opening	Throat depth			
	mm	mm	kg	qty.	V3
BAS-CB9-4	88	40	1.30	1	
BAS-CB10-6	97	60	1.30	1	
BSP-CB10-6	97	60	1.30	1	

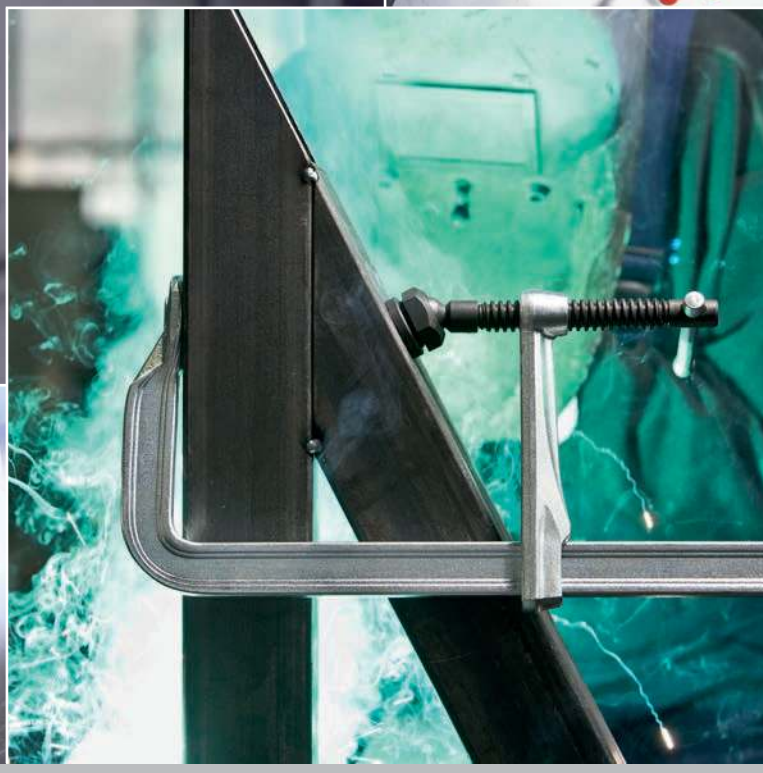
Base unit BASO

Order-No.	Clamping height	Fastening thread	For socket head screw DIN 912			
	mm			kg	qty.	V3
BASO	80	M 10	M 10 / M 12	0.45	1	

- 80 mm extension
- Stackable
- Fastening hole open, including cheese head screw
- Suitable for all BESSEY BAS clamps

3D CAD data for download at www.bessey.de
You will find accessories on page 5

Further proven products across the field of welding



YouTube

- Automatic adjustment to workpieces of various thicknesses
- Sturdy jaws and base plate made from high-quality cast iron
- The copper-plated spindle prevents welding splatter from sticking
- Precise 90°-angles

Welders' angle clamps WSM

Order-No.	Opening	Current passage max.	Jaw height	Jaw length			
	mm	mm	mm	mm	kg	qty.	V3
WSM9	2 x 90	60	35	110	3.80	1	
WSM12	2 x 120	100	61	120	7.80	1	

3D CAD data for download at www.bessey.de

Grip pliers

Simply better.

Parallel grip GRZ

Order-No.	Opening	Throat depth			
	mm	mm	kg	qty.	V3
GRZ10	100	65	1.00	10	
GRZ20	200	65	1.20	10	

- Parallel jaw faces
- Prism recess for small round parts
- Includes pressure caps for gentle clamping of sensitive surfaces

YouTube

C-grip GRZC

Order-No.	Opening	Throat depth	Clamping depth d			
	mm	mm	mm	kg	qty.	V3
GRZC	110	80	40	1.10	10	

- For step-over clamping from both sides

Variogrip GRZV

Order-No.	Opening	Throat depth	Clamping depth d			
	mm	mm	mm	kg	qty.	V3
GRZV	100	50-80	43	1.25	10	

- Throat depth and opening are infinitely adjustable thanks to split sliding arm
- For clamping work pieces of different thicknesses, or non-aligned work pieces

Pipe grip GRZRO

Order-No.	For pipes Ø	Throat depth			
	mm	mm	kg	qty.	V3
GRZRO	0-110	65	1.30	10	

- Ideal for holding round objects of constant diameter
- Includes pressure caps
- Gentle clamping of sensitive surfaces
- Suitable for tack welding, heat-resistant up to 200°C

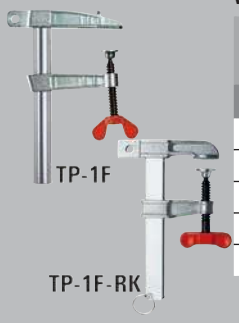
Earth (ground) clamps

- With malleable cast iron arms
- Ergonomically shaped wood handle
- Grounding connection hole in the upper part

Earth (ground) clamp LP / TP with tried-and true wooden handle

Order-No.	Opening	Throat depth	Rail	Hole Ø	Strength current max.			
	mm	mm	mm	mm	A	kg	qty.	V1
LP-1	150	60	20 x 5	10.5	300	0.50	10	
TP-1	150	80	25 x 6	10.5	400	0.78	10	

- With malleable cast iron arms
- Practical thumb screw
- Grounding connection hole in the upper part
- TP-...F-RK: Cable strain relief at rail end / ring internal diameter 30 mm



Earth (ground) clamp LP / TP with thumb screw

Order-No.	Opening	Throat depth	Rail	Hole Ø	Strength current max.			
	mm	mm	mm	mm	A	kg	qty.	V1
LP-1F	150	60	20 x 5	10.5	300	0.53	10	
TP-1F	150	80	25 x 6	10.5	400	0.78	10	
TP-2F	150	60	30 x 8	11	600	1.20	20	
TP-1F-RK	150	80	25 x 6	10.5	400	0.78	10	
TP-2F-RK	150	80	30 x 8	11	600	1.20	20	

- With malleable cast iron arms
- Tommy bar with rounded ends for simple transfer of force when clamping
- Grounding connection hole in the upper part

Earth (ground) clamp TP with tommy bar

Order-No.	Opening	Throat depth	Rail	Hole Ø	Strength current max.			
	mm	mm	mm	mm	A	kg	qty.	V1
TP-1K	150	80	25 x 6	10.5	400	0.75	10	

- With malleable cast iron arms
- Grounding connection hole at end of rail

Earth (ground) clamp TGP

Order-No.	Opening	Throat depth	Rail	Hole Ø	Strength current max.			
	mm	mm	mm	mm	A	kg	qty.	V1
TG-P12	120	60	20 x 5	10.5	200	0.42	10	
TG-P20	200	100	27 x 7	13	350	1.08	10	

- With C-shaped malleable cast iron arms

Earth (ground) clamp CP

Order-No.	Opening	Throat depth	Hole Ø	Strength current max.			
	mm	mm	mm	A	kg	qty.	V1
CP-F	50	30	8.4	200	0.19	10	

Further clamping and cutting tools from the complete BESSEY range

Simply better.

Original BESSEY all-steel screw clamps GZ

- 20 % more clamping force per spindle rotation with optimised rail profile
- Maximum security with linear transfer of force at the sliding arm
- Clamping force up to 6,000 N
- High-quality 2-component plastic handle
- Pressure plates can be replaced by hand – no need for tools (from 80 mm width)
- Fixed jaw and sliding arm are constructed of tempered steel for resilient clamping

Lever clamps GH / SGHS

- Rapid – up to 5 x faster than conventional clamps
- Secure – vibration resistant
- Strong – clamping force up 8,500 N / 9,500 N

Variable high-performance clamps – Complete sets SLV / GSV

- Clamping force up to 6,500 N / 9,000 N
- Tipping is prevented through central positioning on the workpiece
- Long service life thanks to special heat-resistant pressure plate with sintered steel insert, can be tilted by up to 35°
- Clamp can be fed through an opening in the workpiece/component

High-performance clamps SLM / SGM / SGTM / STBM / STBS / STBVC

- Clamping force from 8,500 N (SLM) up to 35,000 N (STBVC)
- Long life due to heat-resistant pressure plate with sintered steel insert, which can be tilted up to 35°

ERDI Compound leverage snips and Standard tin snips

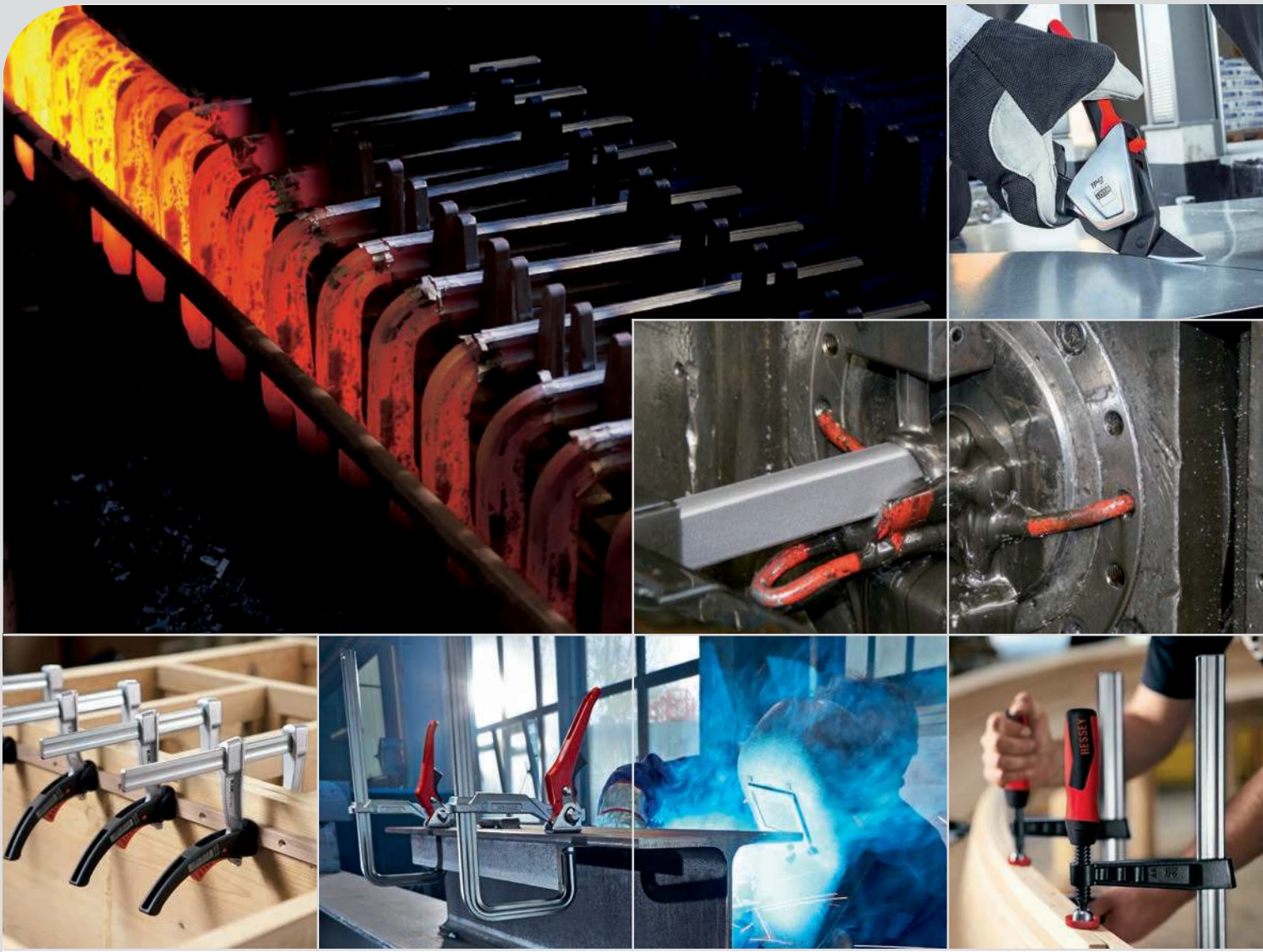
- Shape and straight cutting snips, Shape cutting snips and Straight cutting snips
- Right or left cutting versions available
- Cutting edges in different steel qualities

You will find detailed information in the catalogue and online at www.bessey.de

Two companies – one philosophy

BESSEY focuses on quality.

Simply better.



That has made BESSEY Tool one of the largest suppliers of manual clamping and cutting tools in the world. In order to guarantee the best quality, rails and spindles for example are drawn directly from BESSEY Precision Steel. Round and profile bar steels with the tightest tolerances and highest quality surfaces are produced here, for the automotive and machine construction sectors for example.

Your dealer:

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