



 **40** 1976-2016
YEARS
YOUR WORK HOLDING PARTNER





Technology | Development | History

Clamping Issues?

Resolve all your clamping issues with our unique Lenzkes Clamping Tools services. Try our products absolutely free of charge and without obligation to purchase in Europe and North America.

Make the most of Lenzkes!

Due to their unique stepless horizontal and vertical adjustability, Lenzkes products are used in the plastics industry on injection moulding machines, in metal fabrication, on drilling and milling machines as well as machining centres.

Lenzkes products are also perfect to use on metal forming and stamping presses. Pressure die casting machines also pose no problem due to their immense clamping force.

Quality through consistency and innovative developments

In 1976 Karl-Heinz Lenzkes founded the company with the goal of improving productivity and reducing setup times in manufacturing.

The first generation clamps (S10/20) were improved upon in the early 1980s (S30/40). These were further enhanced by a unique extension block system (B50) allowing greater clamping heights.

In the late 1980s Karl-Heinz Lenzkes added a variety of side clamps (NU/FL/SK/SKQ) for free surface machining.

In the 1990s Karl-Heinz patented the first stepless horizontally and vertically adjustable MQ-Series Clamps (MQ 60/70), which were a revolution in mechanical clamping at that time.

Another milestone in the company's history was the invention of the integrated sliding plate (MQ 100). Further innovations (MQ 106/110/130/150/160/200) helped Lenzkes to become the market leader in mechanical clamping systems.

Between 1989 and 2013, in order to keep up with the ever increasing demand for Lenzkes clamps, the company opened facilities in Great Britain, Spain, USA, Switzerland, France, Poland and Turkey.

The company is ISO 9001 and 14001 certified. Lenzkes represents the highest quality in clamping systems. Approximately 150 experienced employees worldwide are constantly helping over 100,000 customers with their clamping needs.

Get Lenzkes on board so you can relax!

Quality for all applications

- Designed by engineers for engineers
- Greatly adjustable clamps for many varied applications
- Assistance in your own language
- Free trial
- Shipping within 24 hours
- 6 years warranty on clamping shoe and arm

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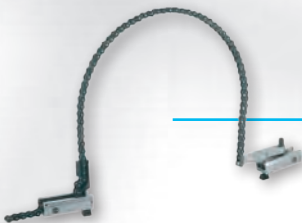
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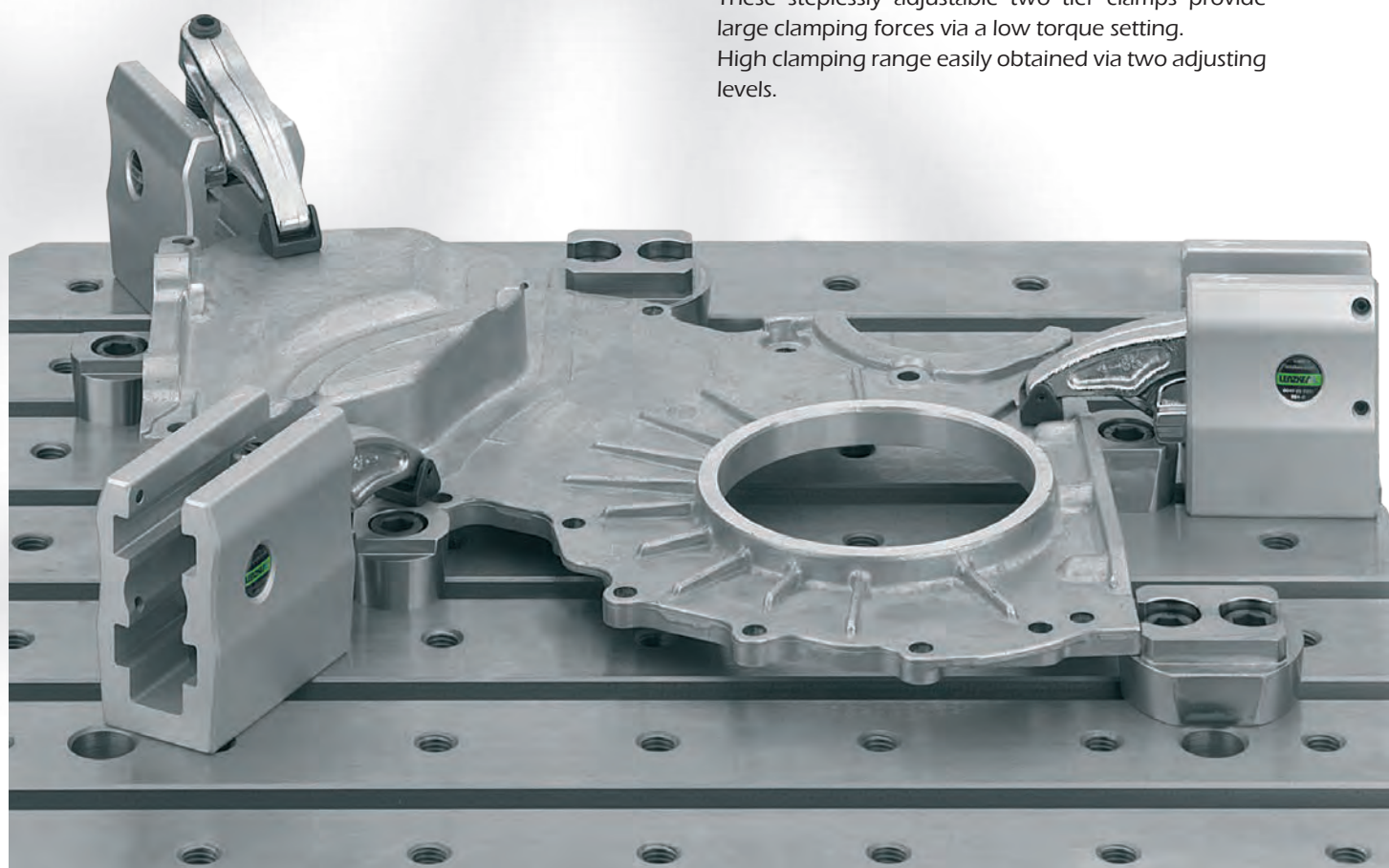
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Multi-Quick – the small strong one's! MQ 60/ 100/ 134 Series 8

MQ 60 Series 8 has a clamping force of up to 24 kN.
MQ 100 Series 8 has a clamping force of up to 22 kN.
These stepless vertically and horizontally adjustable
clamps provide large clamping forces via a low torque
setting.





MQ 134 Series 8 has a clamping force of up to 20 kN. These steplessly adjustable two tier clamps provide large clamping forces via a low torque setting. High clamping range easily obtained via two adjusting levels.



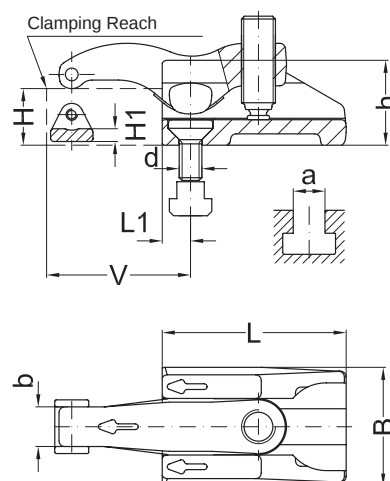
Multi-Quick MQ 60 Series 8 (complete)

Application Examples: Light metal cutting

- protected Trademark Multi Quick
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque

Clamping Force: **Up to 24 kN**

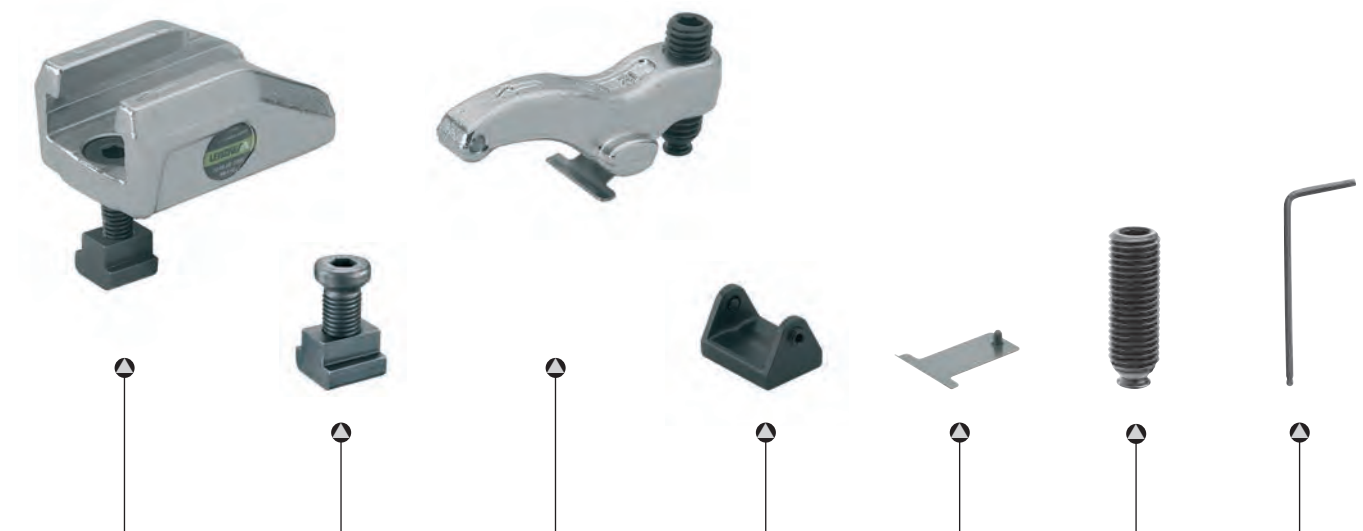
- **Material: Hardened alloy steel**
- **Clamping arm/Clamping shoe: Drop forged**



			for T-Slots		for Tapped Holes									
H	d	a	Part No.		Part No.		V	L	L1	B	b	h	H1	kN
5-25 K	–	–	060-025-13		–		15-31	48	10	44	14	30	4	24
	M06	8	060-025-0608		060-025-06									
	M08	10	060-025-0810		060-025-08									
	M08	12	060-025-0812		–									
	M10	12	060-025-1012		060-025-10									
	M12	14	060-025-1214		060-025-12									
5-32 L	–	–	060-032-13		–		13-39	65	10	45	14	30	4	24
	M06	8	060-032-0608		060-032-06									
	M08	10	060-032-0810		060-032-08									
	M08	12	060-032-0812		–									
	M10	12	060-032-1012		060-032-10									
	M12	14	060-032-1214		060-032-12									

Multi-Quick

MQ 60 Series 8 (Spare Parts)



Clamping Shoe		Fixing Set		Clamping Arm		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key 	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
060-2-048-13		–		060-3-025-09		991-150-08-1		360-060-09		310-12-032		610-06	
060-2-048-0608		960-0608-24-8		K									
060-2-048-0810		960-0810-26-8											
060-2-048-0812		960-0812-26-8											
060-2-048-1012		960-1012-27-8											
060-2-048-1214		960-1214-30-8											
060-2-065-13		–		060-3-032-09		991-150-08-1		360-060-11		310-12-036		610-06	
060-2-065-0608		960-0608-24-8		L									
060-2-065-0810		960-0810-26-8											
060-2-065-0812		960-0812-26-8											
060-2-065-1012		960-1012-27-8											
060-2-065-1214		960-1214-30-8											

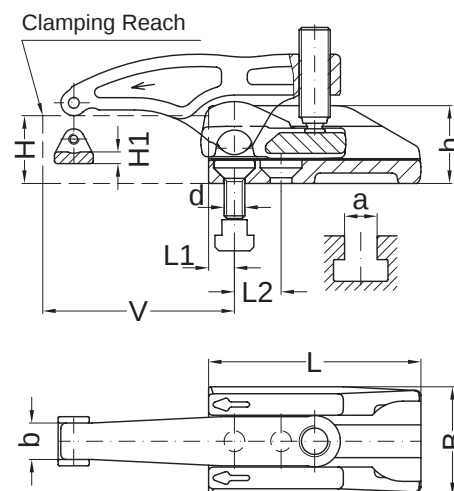
Multi-Quick MQ 100 Series 8 (complete)

Application Examples: Light metal cutting

- protected Trademark Multi Quick
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque
- greater horizontal adjustment due to the integrated sliding plate

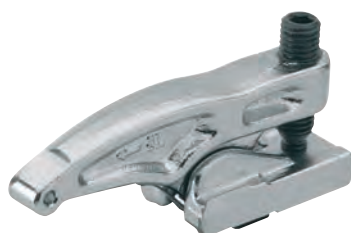
Clamping Force: **Up to 22 kN**

- **Material: Hardened alloy steel**
- **Clamping arm/Clamping shoe: Drop forged**



			for T-Slots		for Tapped Holes										
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	H1	kN
5-38 K	-	-	100-038-13		-		15-50	65	10	-	45	14	30	4	22
	M06	8	100-038-0608		100-038-06										
	M08	10	100-038-0810		100-038-08										
	M08	12	100-038-0812		-										
	M10	12	100-038-1012		100-038-10										
	M12	14	100-038-1214		100-038-12										
5-45 L	-	-	100-045-13		-		15-62	82	10	18	45	14	30	4	22
	M06	8	100-045-0608		100-045-06										
	M08	10	100-045-0810		100-045-08										
	M08	12	100-045-0812		-										
	M10	12	100-045-1012		100-045-10										
	M12	14	100-045-1214		100-045-12										

Multi-Quick MO 100 Series 8 (Spare Parts)



Clamping Shoe		Fixing Set		Clamping Arm with Sliding Plate		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
100-2-065-13		–		220-5-033-09		991-150-08-1		360-100-09		310-12-036		610-06	
100-2-065-0608		960-0608-24-8		K									
100-2-065-0810		960-0810-26-8											
100-2-065-0812		960-0812-26-8											
100-2-065-1012		960-1012-27-8											
100-2-065-1214		960-1214-30-8											
100-2-082-13		–		220-5-040-09		991-150-08-1		360-100-09		310-12-040		610-06	
100-2-082-0608		960-0608-24-8		L									
100-2-082-0810		960-0810-26-8											
100-2-082-0812		960-0812-26-8											
100-2-082-1012		960-1012-27-8											
100-2-082-1214		960-1214-30-8											

Multi-Quick

MQ 134 Series 8 (complete)

Application Examples: Medium metal cutting

- protected as a registered design in Germany
- stepless vertically and horizontally adjustable
- greater horizontal adjustment due to the integrated sliding plate
- greater vertical adjustment due to the two level clamping shoe

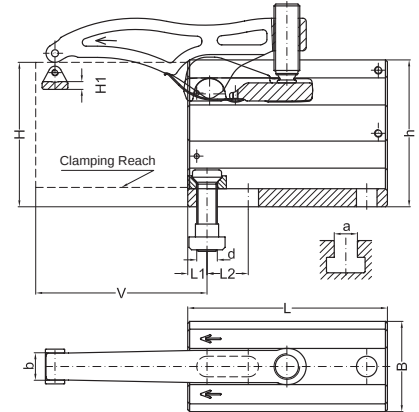
Clamping Force: **Up to 20 kN**



[optional]



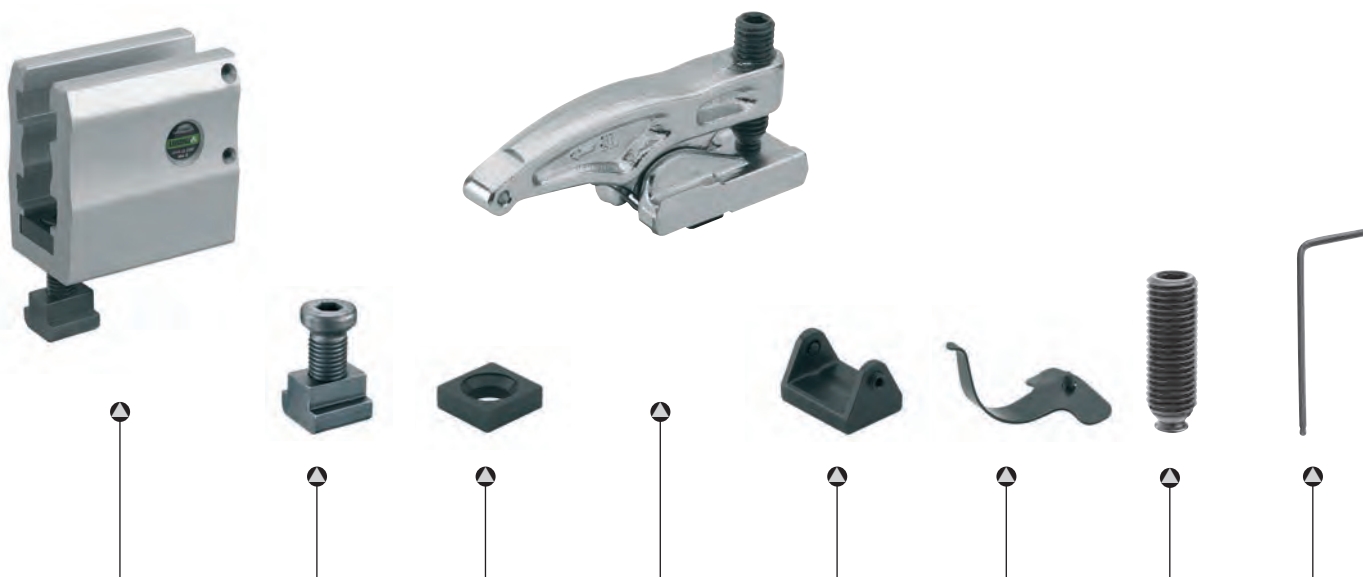
- even greater stepless horizontal adjustment due to elongated slot in clamping shoe



			for T-Slots		for Tapped Holes										
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	H1	kN
15–84 K	–	–	134-084-13		–		11–55	65	11	10	48	14	80	4	20
	M06	8	134-084-0608		134-084-06										
	M08	10	134-084-0810		134-084-08										
	M10	12	134-084-1012		134-084-10										
	M12	14	134-084-1214		134-084-12										
15–92 L	–	–	134-092-13		–		11–65	82	11	18	48	14	80	4	20
	M06	8	134-092-0608		134-092-06										
	M08	10	134-092-0810		134-092-08										
	M10	12	134-092-1012		134-092-10										
	M12	14	134-092-1214		134-092-12										

- Clamping Arm/Sliding plate: Hardened alloy steel and drop forged
- Clamping Shoe: Aluminium alloy ultrasonically tested and precision milled to protect the machine table

Multi-Quick MO 134 Series 8 (Spare Parts)



Clamping Shoe		Fixing Set		Profile Nut		Clamping Arm with Sliding Plate		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
134-2-065-13		–		134-6-022-09		220-5-033-09		991-150-08-1		360-100-09		310-12-036		610-06	
134-2-065-0608		9600608-318				K									
134-2-065-0810		9600810-358													
134-2-065-1012		9601012-388													
134-2-065-1214		9601214-408													
134-2-082-13		–		134-6-022-09		220-5-040-09		991-150-08-1		360-100-09		310-12-040		610-06	
134-2-082-0608		9600608-318				L									
134-2-082-0810		9600810-358													
134-2-082-1012		9601012-388													
134-2-082-1214		9601214-408													

Multi-Quick – The route to flexible clamping

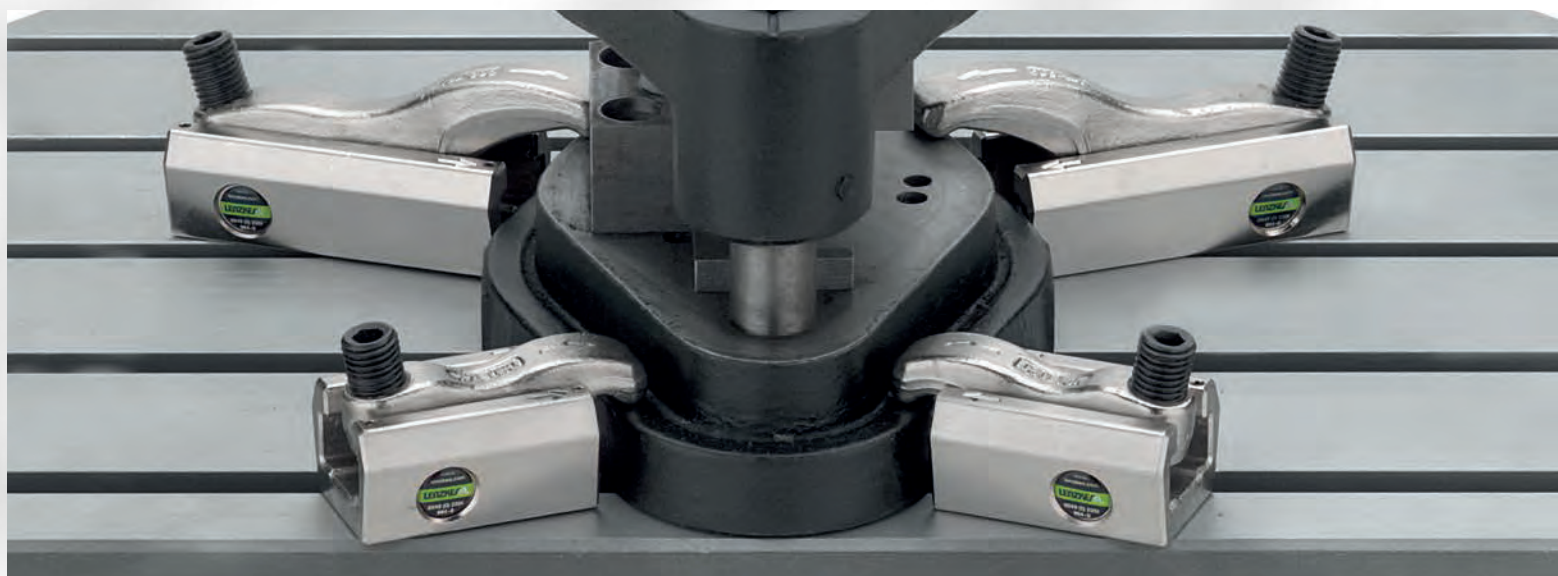
MQ 60 – 70

MQ 60 has a clamping force up to 90 kN.
Stepless vertical and horizontal adjustment.

MQ 70 has a clamping force up to 50 kN.
Increased stepless vertical and horizontal adjustment.



- The MO Series is stepless vertically and horizontally adjustable at any angle on the machine table.
- The clamping shoes can be used as an extension to the machine table.



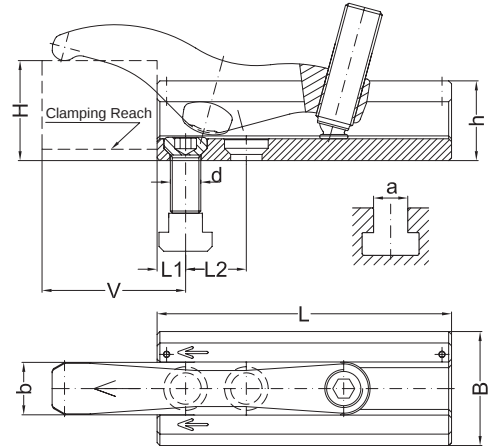
Multi-Quick MQ 60 (complete)

Clamping Force: **Up to 55 kN**

Application Examples:
Metal forming, heavy duty metal cutting and pressure die casting

- protected Trademark Multi Quick
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque

- **Material: Hardened alloy steel**
- **Clamping Arm: Drop forged**



			for T-Slots		for Tapped Holes									
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	kN
5-34 K	—	—	060-034-13		—		12-38	75	12	20	52	24	37	40
	M08	10	060-034-0810		060-034-08									
	M10	12	060-034-1012		060-034-10									
	M12	14	060-034-1214		060-034-12									
5-40 LF	—	—	060-040-13		—		12-58	115	12	28	52	24	37	40
	M08	10	060-040-0810		060-040-08									
	M10	12	060-040-1012		060-040-10									
	M12	14	060-040-1214		060-040-12									
35-67 LG	—	—	060-067-13		—		12-58	115	12	28	52	24	37	40
	M08	10	060-067-0810		060-067-08									
	M10	12	060-067-1012		060-067-10									
	M12	14	060-067-1214		060-067-12									
6-38 K	—	—	060-038-17		—		25-45	85	15	25	60	28	42	55
	M14	16	060-038-1416		060-038-14									
	M16	18	060-038-1618		060-038-16									
6-58 L	—	—	060-058-17		—		30-80	130	15	32	60	28	42	55
	M14	16	060-058-1416		060-058-14									
	M16	18	060-058-1618		060-058-16									

Multi-Quick MQ 60 (Spare Parts)



Clamping Shoe		Fixing Set		Clamping Arm		Spring with Screw		Ball Pressure Screw		Allen Key 	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
060-2-075-13		–		060-3-034-13 K		360-070-013		310-16-050		610-08	
060-2-075-0810		960-0810-25									
060-2-075-1012		960-1012-29									
060-2-075-1214		960-1214-31									
060-2-115-13		–		060-3-040-13 LF		360-070-013		310-16-055		610-08	
060-2-115-0810		960-0810-25									
060-2-115-1012		960-1012-29									
060-2-115-1214		960-1214-31									
060-2-115-13		–		060-3-067-13 LG		360-070-013		310-16-055		610-08	
060-2-115-0810		960-0810-25									
060-2-115-1012		960-1012-29									
060-2-115-1214		960-1214-31									
060-2-085-17		–		060-3-038-17 K		360-070-017		310-20-055		610-10	
060-2-085-1416		960-1416-35									
060-2-085-1618		960-1618-40									
060-2-130-17		–		060-3-058-17 L		360-070-017		310-20-070		610-10	
060-2-130-1416		960-1416-35									
060-2-130-1618		960-1618-40									

Multi-Quick

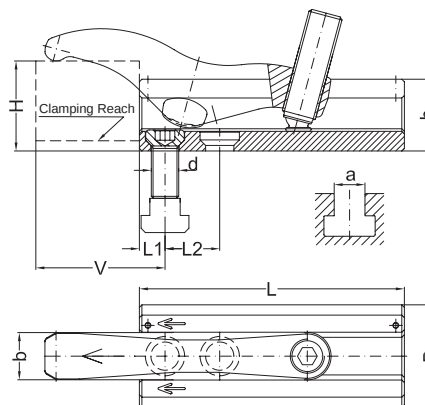
MQ 60 (complete)

Clamping Force: **Up to 90 kN**

Application Examples:
 Metal forming, heavy duty metal cutting and
 pressure die casting

- protected Trademark Multi Quick
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque

- **Material: Hardened alloy steel**
- **Clamping Arm: Drop forged**



			for T-Slots		for Tapped Holes									
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	kN
5–35 KF	–	–	060-035-21		–		19–49	100	19	32	75	34	48	65
	M18	20	060-035-1820		060-035-18									
	M20	22	060-035-2022		060-035-20									
28–55 KG	–	–	060-055-21		–		19–49	100	19	32	75	34	48	65
	M18	20	060-055-1820		060-055-18									
	M20	22	060-055-2022		060-055-20									
8–68 L	–	–	060-068-21		–		35–88	150	19	38	75	34	48	65
	M18	20	060-068-1820		060-068-18									
	M20	22	060-068-2022		060-068-20									
45–85 LG	–	–	060-085-21		–		19–78	150	19	38	75	34	48	65
	M18	20	060-085-1820		060-085-18									
	M20	22	060-085-2022		060-085-20									
10–46 KF	–	–	060-046-25		–		22–66	125	22	38	88	42	57	80
	M22	24	060-046-2224		060-046-22									
	M24	28	060-046-2428		060-046-24									
	–	–	060-046-31		–		25–69		25	–				
	M30	36	060-046-3036		060-046-30									
15–80 L	–	–	060-080-25		–		45–105	180	22	45	88	42	57	80
	M22	24	060-080-2224		060-080-22									
	M24	28	060-080-2428		060-080-24									
	M24	36	060-080-2436		–		48–108		25					
	–	–	060-080-31		–									
	M30	36	060-080-3036		060-080-30									
15–90 L	–	–	060-090-25		–		35–108	190	22	45	90	41	65	90
	M22	24	060-090-2224		060-090-22									
	M24	28	060-090-2428		060-090-24									
	M24	36	060-090-2436		–		38–112		25					
	–	–	060-090-31		–									
	M30	36	060-090-3036		060-090-30									

Multi-Quick MQ 60 (Spare Parts)



Clamping Shoe		Fixing Set		Clamping Arm		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
060-2-100-21		–		060-3-035-21 KF		360-060-021		310-24-060		610-12	
060-2-100-1820		960-1820-45									
060-2-100-2022		960-2022-51									
060-2-100-21		–		060-3-055-21 KG		360-060-021		310-24-060		610-12	
060-2-100-1820		960-1820-45									
060-2-100-2022		960-2022-51									
060-2-150-21		–		060-3-068-21 L		360-070-021		310-24-080		610-12	
060-2-150-1820		960-1820-45									
060-2-150-2022		960-2022-51									
060-2-150-21		–		060-3-085-21 LG		360-070-021		310-24-070		610-12	
060-2-150-1820		960-1820-45									
060-2-150-2022		960-2022-51									
060-2-125-25		–		060-3-046-25 KF		360-070-025		310-24-070		610-12	
060-2-125-2224		960-2224-55									
060-2-125-2428		960-2428-60									
060-2-125-31		–									
060-2-125-3036		960-3036-75									
060-2-180-25		–		060-3-080-25 L		360-070-025		310-24-090		610-12	
060-2-180-2224		960-2224-55									
060-2-180-2428		960-2428-60									
060-2-180-2436		960-2436-74									
060-2-180-31		–									
060-2-180-3036		960-3036-75									
060-2-191-25		–		060-3-080-25 L		360-070-025		310-24-090		610-12	
060-2-191-2224		960-2224-60									
060-2-191-2428		960-2428-68									
060-2-191-2436		960-2436-74									
060-2-191-31		–									
060-2-191-3036		960-3036-75									

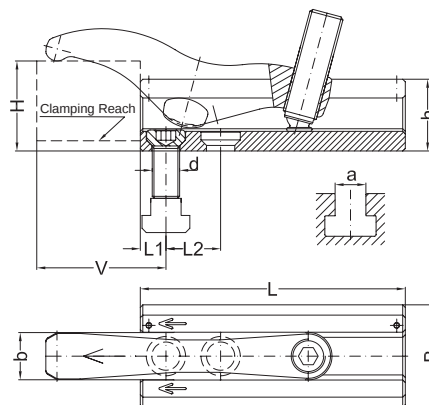
Multi-Quick MQ 65 (complete)

Clamping Force: **Up to 80 kN**

Application Examples:
Metal forming, heavy duty metal cutting and pressure die casting

- protected Trademark Multi Quick
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque
- greater horizontal and vertical reach than MQ60

- **Material: Hardened alloy steel**
- **Clamping Arm: Drop forged**



			for T-Slots		for Tapped Holes									
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	kN
6-58	-	-	065-058-17		-		15-80	155	15	28	60	28	42	55
L	M14	16	065-058-1416		065-058-14									
	M16	18	065-058-1618		065-058-16									
8-68	-	-	065-068-21		-		19-88	175	19	34	75	34	48	65
L	M18	20	065-068-1820		065-068-18									
	M20	22	065-068-2022		065-068-20									
15-80	-	-	065-080-25		-		22-105	205	22	38	88	42	57	80
L	M22	24	065-080-2224		065-080-22									
	M24	28	065-080-2428		065-080-24									
	M24	36	065-080-2436		-									
	-	-	065-080-31		-									
	M30	36	065-080-3036		065-080-30		25-108		25	-				

Multi-Quick MQ 65 (Spare Parts)



Clamping Shoe		Fixing Set		Clamping Arm		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
070-2-155-17		–		060-3-058-17		360-070-017		310-20-070		610-10	
070-2-155-1416		960-1416-35		L							
070-2-155-1618		960-1618-40									
070-2-175-21		–		060-3-068-21		360-070-021		310-24-080		610-12	
070-2-175-1820		960-1820-45		L							
070-2-175-2022		960-2022-51									
070-2-205-25		–		060-3-080-25		360-070-025		310-24-090		610-12	
070-2-205-2224		960-2224-55		L							
070-2-205-2428		960-2428-60									
070-2-205-2436		960-2436-74									
070-2-205-31		–									
070-2-205-3036		960-3036-75									

Multi-Quick

MQ 60S (complete)

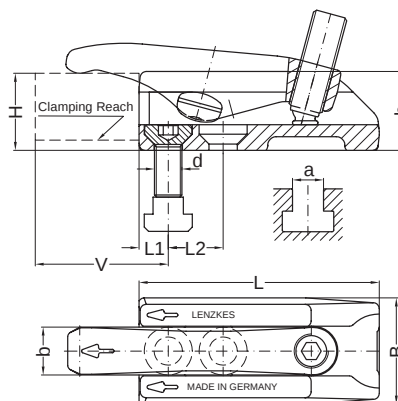
Clamping Force: **Up to 100 kN**



Application Examples:
 Metal forming, heavy duty metal cutting and pressure die casting

- protected Trademark Multi Quick
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque
- stronger Design Forged Clamping Shoe and Clamping Arm
- up to 40% higher clamping force than our MQ 60 is achieved, by redesign and reposition of the pivot point
- Fixing bolts now come with a larger head
- flatter designed forging clamping shoe

- **Material: Hardened alloy steel**
- **Clamping arm/Clamping shoe: Drop forged**



			for T-Slots		for Tapped Holes									
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	kN
5–30 K	–	–	060S-030-13		–		14–46	80	14	–	52	23	37	45
	M12	14	060S-030-1214		060S-030-12									
	M12	16	060S-030-1216											
5–42 L	–	–	060S-042-13		–		14–67	120	14	28	52	23	37	45
	M12	14	060S-042-1214		060S-042-12									
	M12	16	060S-042-1216											
6–35 K	–	–	060S-035-17		–		17–52	92	17	–	62	28	46	60
	M14	16	060S-035-1416		060S-035-14									
	M16	18	060S-035-1618		060S-035-16									
	M16	20	060S-035-1620											
6–50 L	–	–	060S-050-17		–		17–78	140	17	32	62	28	46	60
	M14	16	060S-050-1416		060S-050-14									
	M16	18	060S-050-1618		060S-050-16									
	M16	20	060S-050-1620											
7–41 K	–	–	060S-041-21		–		21–60	107	21	–	76	34	46	70
	M20	22	060S-041-2022		060S-041-20									
	M20	24	060S-041-2024											
7–59 L	–	–	060S-059-21		–		21–88	160	21	40	76	34	56	70
	M20	22	060S-059-2022		060S-059-20									
	M20	24	060S-059-2024											
8–49 K	–	–	060S-049-25		–		25–74	130	25	–	90	41	65	85
	M24	28	060S-049-2428		060S-049-24									
	M24	36	060S-049-2436											
8–70 L	–	–	060S-070-25		–		25–106	190	25	45	90	41	65	85
	M24	28	060S-070-2428		060S-070-24									
	M24	36	060S-070-2436											
8–85 L	–	–	060S-085-31		–		30–128	232	30	55	104	47	75	100
	M30	36	060S-085-3036		060S-085-30									
	M30	42	060S-085-3042											
	–	–	060S-085-37		–				32					
	M36	–	–		060S-085-36									

Multi-Quick MQ 60 S (Spare Parts)



Clamping Shoe		Fixing Set		Clamping Arm		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
060S-2-080-13		–		060S-3-030-13 K		360-070-013		310-16-050		610-08	
060S-2-080-1214		961-1214-033									
060S-2-080-1216		961-1216-033									
060S-2-120-13		–		060S-3-042-13 L		360-070-013		310-16-060		610-08	
060S-2-120-1214		961-1214-033									
060S-2-120-1216		961-1216-033									
060S-2-092-17		–		060S-3-035-17 K		360-070-017		310-20-055		610-10	
060S-2-092-1416		961-1416-038									
060S-2-092-1618		961-1618-043									
060S-2-092-1620		961-1620-043									
060S-2-140-17		–		060S-3-050-17 L		360-070-017		310-20-070		610-10	
060S-2-140-1618		961-1416-038									
060S-2-140-1618		961-1618-043									
060S-2-140-1620		961-1620-043									
060S-2-107-21		–		060S-3-041-21 K		360-060-021		310-24-060		610-12	
060S-2-107-2022		961-2022-054									
060S-2-107-2024		961-2024-054									
060S-2-160-21		–		060S-3-059-21 L		360-070-021		310-24-080		610-12	
060S-2-160-2022		961-2022-054									
060S-2-160-2024		961-2024-054									
060S-2-130-25		–		060S-3-049-25 K		360-070-025		310-27-078		610-14	
060S-2-130-2428		961-2428-067									
060S-2-130-2436		961-2436-080									
060S-2-190-25		–		060S-3-070-25 L		360-070-025		310-27-095		610-14	
060S-2-190-2428		961-2428-067									
060S-2-190-2436		961-2436-080									
060S-2-232-31		–		060S-3-085-31 L		360-060-031		310-30-110		610-14	
060S-2-232-3036		961-3036-082									
060S-2-232-3042		961-3042-095									
060S-2-232-37		–									
060S-2-232-36		391-36-080									

Multi-Quick MQ 70 (complete)

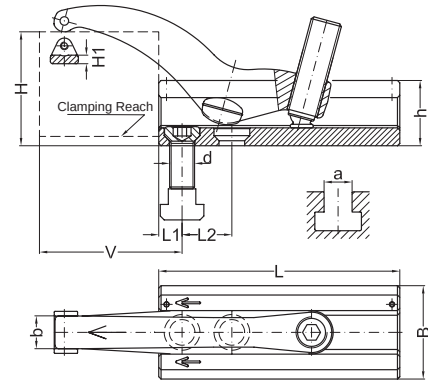
Clamping Force: **Up to 50 kN**

Application Examples:

Injection moulding, light and medium metal cutting

- protected Trademark Multi Quick
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque

- **Material: Hardened alloy steel**
- **Clamping Arm: Drop forged**



			for T-Slots		for Tapped Holes										
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	H1	kN
5-52 K	—	—	070-052-13		—		12-65	95	12	—	52	18	37	5	20
	M08	10	070-052-0810		070-052-08										
	M10	12	070-052-1012		070-052-10										
	M12	14	070-052-1214		070-052-12										
7-72 L	—	—	070-072-13		—		12-95	135	12	24	52	18	37	5	22
	M08	10	070-072-0810		070-072-08										
	M10	12	070-072-1012		070-072-10										
	M12	14	070-072-1214		070-072-12										
6-62 K	—	—	070-062-17		—		15-75	110	15	—	60	21	42	6	30
	M14	16	070-062-1416		070-062-14										
	M16	18	070-062-1618		070-062-16										
8-82 L	—	—	070-082-17		—		15-108	155	15	28	60	21	42	6	32
	M14	16	070-082-1416		070-082-14										
	M16	18	070-082-1618		070-082-16										
7-70 K	—	—	070-070-21		—		19-90	125	19	—	75	25	48	7	40
	M18	20	070-070-1820		070-070-18										
	M20	22	070-070-2022		070-070-20										
7-92 L	—	—	070-092-21		—		19-122	175	19	34	75	25	48	7	42
	M18	20	070-092-1820		070-092-18										
	M20	22	070-092-2022		070-092-20										
8-85 K	—	—	070-085-25		—		22-112	150	22	—	88	33	57	8	50
	M22	24	070-085-2224		070-085-22										
	M24	28	070-085-2428		070-085-24										
	M24	36	070-085-2436		—		25-115		25	—	—	—	—	—	—
	—	—	070-085-31		—										
	M30	36	070-085-3036		070-085-30										
8-108 L	—	—	070-108-25		—		22-145	205	22	38	88	33	57	8	50
	M22	24	070-108-2224		070-108-22										
	M24	28	070-108-2428		070-108-24										
	M24	36	070-108-2436		—		25-148		25	—	—	—	—	—	—
	—	—	070-108-31		—										
	M30	36	070-108-3036		070-108-30										

Multi-Quick MQ 70 (Spare Parts)



Clamping Shoe		Fixing Set		Clamping Arm		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
070-2-095-13		–		070-3-052-13		991-150-12-1		360-060-013		310-16-050		610-08	
070-2-095-0810		960-0810-25		K									
070-2-095-1012		960-1012-29											
070-2-095-1214		960-1214-31											
070-2-135-13		–		070-3-072-13		991-150-12-1		360-070-013		310-16-055		610-08	
070-2-135-0810		960-0810-25		L									
070-2-135-1012		960-1012-29											
070-2-135-1214		960-1214-31											
070-2-110-17		–		070-3-062-17		991-150-16-1		360-070-017		310-20-055		610-10	
070-2-110-1416		960-1416-35		K									
070-2-110-1618		960-1618-40											
070-2-155-17		–		070-3-082-17		991-150-16-1		360-070-017		310-20-060		610-10	
070-2-155-1416		960-1416-35		L									
070-2-155-1618		960-1618-40											
070-2-125-21		–		070-3-070-21		991-7020-1		360-070-021		310-24-070		610-12	
070-2-125-1820		960-1820-45		K									
070-2-125-2022		960-2022-51											
070-2-175-21		–		070-3-092-21		991-150-20-1		360-070-021		310-24-080		610-12	
070-2-175-1820		960-1820-45		L									
070-2-175-2022		960-2022-51											
070-2-150-25		–		070-3-085-25		991-7024-1		360-070-025		310-24-080		610-12	
070-2-150-2224		960-2224-55		K									
070-2-150-2428		960-2428-60											
070-2-150-2436		960-2436-74											
070-2-150-31		–											
070-2-150-3036		960-3036-75											
070-2-205-25		–		070-3-108-25		991-150-24-1		360-070-025		310-24-090		610-12	
070-2-205-2224		960-2224-55		L									
070-2-205-2428		960-2428-60											
070-2-205-2436		960-2436-74											
070-2-205-31		–											
070-2-205-3036		960-3036-75											

Multi-Quick – Flexible clamping solutions

MQ 100 – 134

MQ 100 has a clamping force up to 60 kN.

MQ 110 has a clamping force up to 40 kN.

MQ 130 has a clamping force up to 35 kN.

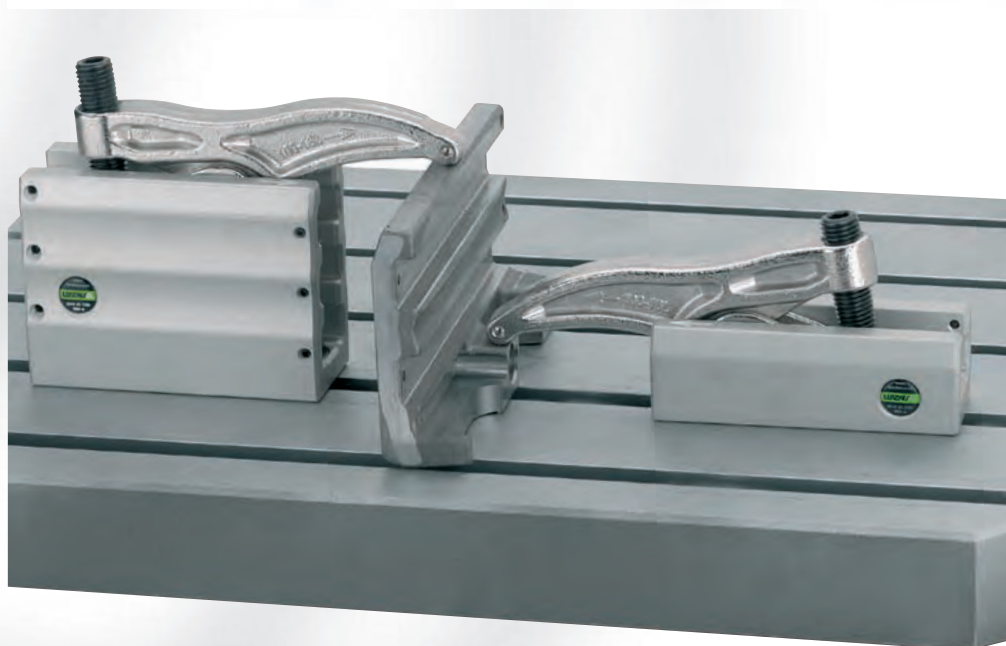
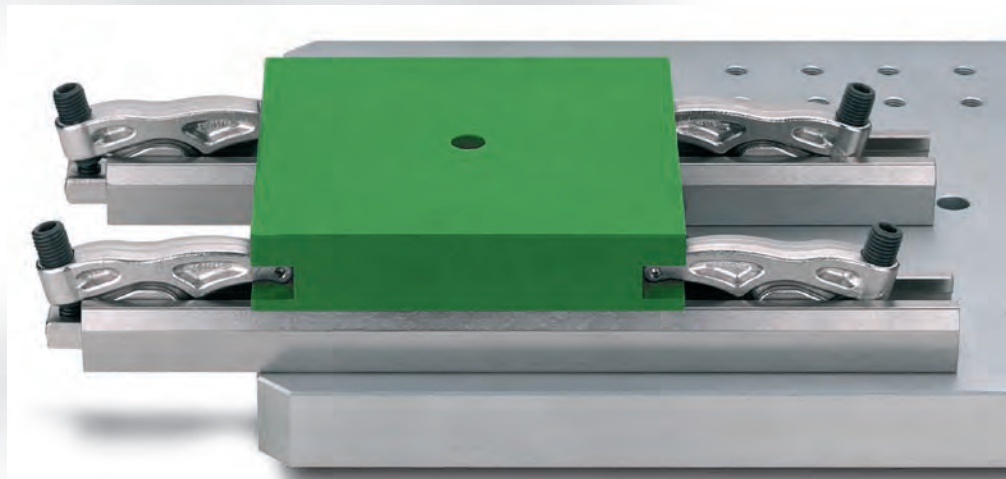
These clamps offer a greater stepless adjustment, both vertically and horizontally. This is in part due to the integrated sliding plate.

MQ 106 has a clamping force up to 60 kN.

MQ 134 has a clamping force up to 40 kN.

Even greater stepless horizontal adjustment due to elongated slot in clamping shoe.





Multi-Quick

MQ 100 (complete)

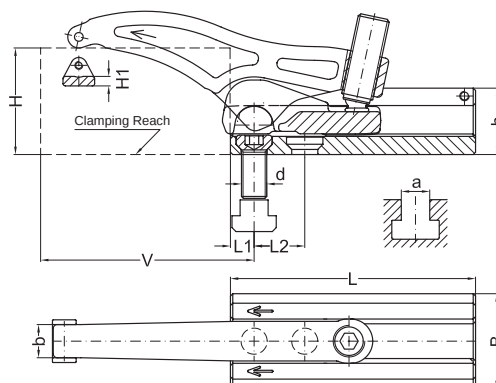
Application Examples:

Injection moulding, metal cuttings and metal forming

- protected Trademark Multi Quick
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque
- greater horizontal adjustment due to the integrated sliding plate

Clamping Force: **Up to 60 kN**

- **Material: Hardened alloy steel**
- **Clamping Arm: Drop forged**



			for T-Slots		for Tapped Holes										
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	H1	kN
0-48 K	-	-	100-048-13		-		12-82	95	12	20	52	18	37	5	32
	M08	10	100-048-0810		100-048-08										
	M10	12	100-048-1012		100-048-10										
	M12	14	100-048-1214		100-048-12										
5-67 L	-	-	100-067-13		-		12-112	135	12	28	52	18	37	5	30
	M08	10	100-067-0810		100-067-08										
	M10	12	100-067-1012		100-067-10										
	M12	14	100-067-1214		100-067-12										
0-55 K	-	-	100-055-17		-		15-95	110	15	25	60	21	42	6	40
	M14	16	100-055-1416		100-055-14										
	M16	18	100-055-1618		100-055-16										
6-78 L	-	-	100-078-17		-		15-135	155	15	32	60	21	42	6	43
	M14	16	100-078-1416		100-078-14										
	M16	18	100-078-1618		100-078-16										
0-62 K	-	-	100-062-21		-		19-110	125	19	32	75	25	48	7	45
	M18	20	100-062-1820		100-062-18										
	M20	22	100-062-2022		100-062-20										
7-88 L	-	-	100-088-21		-		19-159	175	19	38	75	25	48	7	49
	M18	20	100-088-1820		100-088-18										
	M20	22	100-088-2022		100-088-20										
8-77 K	-	-	100-077-25		-		22-125	150	22	38	88	33	57	8	55
	M22	24	100-077-2224		100-077-22										
	M24	28	100-077-2428		100-077-24										
	M24	36	100-077-2436		-										
	-	-	100-077-31		-		25-128	150	25	-	88	33	57	8	55
	M30	36	100-077-3036		100-077-30										
8-102 L	-	-	100-102-25		-		22-182	205	22	45	88	33	57	8	60
	M22	24	100-102-2224		100-102-22										
	M24	28	100-102-2428		100-102-24										
	M24	36	100-102-2436		-										
	-	-	100-102-31		-		25-185	205	25	45	88	33	57	8	60
	M30	36	100-102-3036		100-102-30										

Multi-Quick MO 100 (Spare Parts)



Clamping Shoe		Fixing Set		Clamping Arm with Sliding Plate		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
100-2-095-13		–		220-5-038-13		991-150-12-1		360-100-113		310-16-055		610-08	
100-2-095-0810		960-0810-25		K									
100-2-095-1012		960-1012-29											
100-2-095-1214		960-1214-31											
100-2-135-13		–		220-5-057-13		991-150-12-1		360-100-113		310-16-060		610-08	
100-2-135-0810		960-0810-25		L									
100-2-135-1012		960-1012-29											
100-2-135-1214		960-1214-31											
100-2-110-17		–		220-5-043-17		991-150-16-1		360-100-117		310-20-060		610-10	
100-2-110-1416		960-1416-35		K									
100-2-110-1618		960-1618-40											
100-2-155-17		–		220-5-068-17		991-150-16-1		360-100-117		310-20-070		610-10	
100-2-155-1416		960-1416-35		L									
100-2-155-1618		960-1618-40											
100-2-125-21		–		220-5-062-21		991-150-20-1		360-100-121		310-24-070		610-12	
100-2-125-1820		960-1820-45		K									
100-2-125-2022		960-2022-51											
100-2-175-21		–		220-5-078-21		991-150-20-1		360-100-121		310-24-090		610-12	
100-2-175-1820		960-1820-45		L									
100-2-175-2022		960-2022-51											
100-2-150-25		–		200-5-070-25		991-7024-1		360-100-125		310-24-070		610-12	
100-2-150-2224		960-2224-55		K									
100-2-150-2428		960-2428-60											
100-2-150-2436		960-2436-74											
100-2-150-31		–											
100-2-150-3036		960-3036-75											
100-2-205-25		–		220-5-085-25		991-150-24-1		360-100-125		310-24-090		610-12	
100-2-205-2224		960-2224-55		L									
100-2-205-2428		960-2428-60											
100-2-205-2436		960-2436-74											
100-2-205-31		–											
100-2-205-3036		960-3036-75											

Multi-Quick MQ 100S (complete)

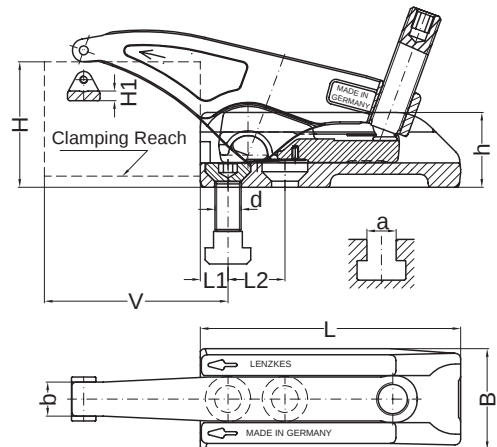
Clamping Force: **Up to 90 kN**



Application Examples: Injection moulding, heavy duty metal cutting and metal forming

- protected Trademark Multi Quick
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque
- greater horizontal adjustment due to the integrated sliding plate
- stronger design forged Clamping Shoe and Clamping Arm
- up to 50% higher clamping force than our MQ 100 and MQ 106 is achieved, by redesign and reposition of the pivot on the sliding plate
- Fixing bolts now come with a larger head
- flatter designed forged clamping shoe

- **Material: Hardened alloy steel**
- **Clamping arm/Clamping shoe: Drop forged**



			for T-Slots		for Tapped Holes									
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	kN
5-46 K	—	—	100S-046-13		—		14-85	98	14	23	52	18	37	40
	M12	14	100S-046-1214		100S-046-12									
	M12	16	100S-046-1216											
5-64 L	—	—	100S-064-13		—		14-112	140	14	30	52	18	37	40
	M12	14	100S-064-1214		100S-064-12									
	M12	16	100S-064-1216											
6-54 K	—	—	100S-054-17		—		17-98	112	17	28	62	21	46	50
	M14	16	100S-054-1416		100S-054-14									
	M16	18	100S-054-1618		100S-054-16									
	M16	20	100S-054-1620											
6-77 L	—	—	100S-077-17		—		17-134	160	17	35	62	21	46	50
	M14	16	100S-077-1416		100S-077-14									
	M16	18	100S-077-1618		100S-077-16									
	M16	20	100S-077-1620											
7-61 K	—	—	100S-061-21		—		21-114	128	21	34	76	25	56	60
	M20	22	100S-061-2022		100S-061-20									
	M20	24	100S-061-2024											
7-87 L	—	—	100S-087-21		—		21-157	190	21	40	76	25	56	60
	M20	22	100S-087-2022		100S-087-20									
	M20	24	100S-087-2024											
8-101 L	—	—	100S-101-25		—		25-181	220	25	50	90	33	65	70
	M24	28	100S-101-2428		100S-101-24									
	M24	36	100S-101-2436											
10-111 L	—	—	100S-111-31		—		30-200	232	30	55	104	33	75	90
	M30	36	100S-111-3036		100S-111-30									
	M30	42	100S-111-3042											
	—	—	100S-111-37		—									
	M36	—	—		100S-111-36									

Multi-Quick MO 100 S (Spare Parts)



Clamping Shoe		Fixing Set		Clamping Arm with Sliding Plate		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
100S-2-098-13		–		100S-5-046-13 K		991-150-12-1		360-100-113		310-16-055		610-08	
100S-2-098-1214		961-1214-033											
100S-2-098-1216		961-1216-033											
100S-2-140-13		–		100S-5-064-13 L		991-150-12-1		360-100-113		310-16-070		610-08	
100S-2-140-1214		961-1214-033											
100S-2-140-1216		961-1216-033											
100S-2-112-17		–		100S-5-054-17 K		991-150-16-1		360-100-117		310-20-066		610-10	
100S-2-112-1416		961-1416-038											
100S-2-112-1618		961-1618-043											
100S-2-112-1620		961-1620-043											
100S-2-160-17		–		100S-5-077-17 L		991-150-16-1		360-100-117		310-20-083		610-10	
100S-2-160-1416		961-1416-038											
100S-2-160-1618		961-1618-043											
100S-2-160-1620		961-1620-043											
100S-2-128-21		–		100S-5-061-21 K		991-150-20-1		360-100-121		310-24-080		610-12	
100S-2-128-2022		961-2022-054											
100S-2-128-2024		961-2024-054											
100S-2-190-21		–		100S-5-087-21 L		991-150-20-1		360-100-121		310-24-098		610-12	
100S-2-190-2022		961-2022-054											
100S-2-190-2024		961-2024-054											
100S-2-220-25		–		100S-5-101-25 L		991-150-24-1		360-100-125		310-27-110		610-14	
100S-2-220-2428		961-2428-067											
100S-2-220-2436		961-2436-080											
100S-2-232-31		–		100S-5-111-31 L		–		360-100-131		310-30-122		610-14	
100S-2-232-3036		961-3036-082											
100S-2-232-3042		961-3042-095											
100S-2-232-37		–											
100S-2-232-36		391-36-080											

Multi-Quick

MQ 106 (complete)

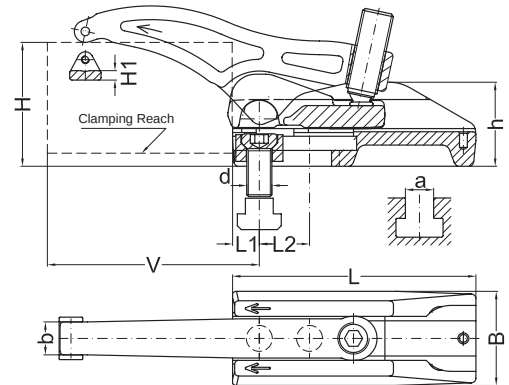
Application Examples:

Injection moulding, metal cutting and metal forming

- protected as a registered design in Germany
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque
- greater horizontal adjustment due to the integrated sliding plate

Clamping Force: **Up to 60 kN**

- **Material: Hardened alloy steel**
- **Clamping arm/Clamping shoe: Drop forged**



			for T-Slots		for Tapped Holes										
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	H1	kN
10-58 K	-	-	106-058-13		-		14-84	96	14	16	50	18	47	5	30
	M08	10	106-058-0810		106-058-08										
	M10	12	106-058-1012		106-058-10										
	M12	14	106-058-1214		106-058-12										
15-75 L	-	-	106-075-13		-		14-114	136	14	26	50	18	47	5	32
	M08	10	106-075-0810		106-075-08										
	M10	12	106-075-1012		106-075-10										
	M12	14	106-075-1214		106-075-12										
12-65 K	-	-	106-065-17		-		17-97	111	17	18	60	21	54	6	40
	M14	16	106-065-1416		106-065-14										
	M16	18	106-065-1618		106-065-16										
16-90 L	-	-	106-090-17		-		17-137	156	17	28	60	21	54	6	43
	M14	16	106-090-1416		106-090-14										
	M16	18	106-090-1618		106-090-16										
18-102 L	-	-	106-102-21		-		21-160	181	21	36	72	25	62	7	50
	M18	20	106-102-1820		106-102-18										
	M20	22	106-102-2022		106-102-20										
15-115 L	-	-	106-115-25		-		24-184	211	24	43	88	33	72	8	60
	M22	24	106-115-2224		106-115-22										
	M24	28	106-115-2428		106-115-24										
	M24	36	106-115-2436		-										
	-	-	106-115-31		-										
	M30	36	106-115-3036		106-115-30										

Multi-Quick MQ 106 (Spare Parts)



Clamping Shoe		Fixing Set		Profile Nut		Clamping Arm with Sliding Plate		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
106-2-096-13		—		200-6-024-13		220-5-038-13		991-150-12-1		360-100-113		310-16-055		610-08	
106-2-096-0810		960-0810-33				K									
106-2-096-1012		960-1012-35													
106-2-096-1214		960-1214-40													
106-2-136-13		—		200-6-024-13		220-5-057-13		991-150-12-1		360-100-113		310-16-060		610-08	
106-2-136-0810		960-0810-33				L									
106-2-136-1012		960-1012-35													
106-2-136-1214		960-1214-40													
106-2-111-17		—		220-6-030-17		220-5-043-17		991-150-16-1		360-100-117		310-20-060		610-10	
106-2-111-1416		960-1416-41				K									
106-2-111-1618		960-1618-48													
106-2-156-17		—		220-6-030-17		220-5-068-17		991-150-16-1		360-100-117		310-20-070		610-10	
106-2-156-1416		960-1416-41				L									
106-2-156-1618		960-1618-48													
106-2-181-21		—		220-6-038-21		220-5-078-21		991-150-20-1		360-100-121		310-24-090		610-12	
106-2-181-1820		960-1820-55				L									
106-2-181-2022		960-2022-60													
106-2-211-25		—		220-6-044-25		220-5-085-25		991-150-24-1		360-100-125		310-24-090		610-12	
106-2-211-2224		960-2224-68				L									
106-2-211-2428		960-2428-74													
106-2-211-2436		960-2436-86													
106-2-211-31		—		220-6-050-31											
106-2-211-3036		960-3036-86													

Multi-Quick

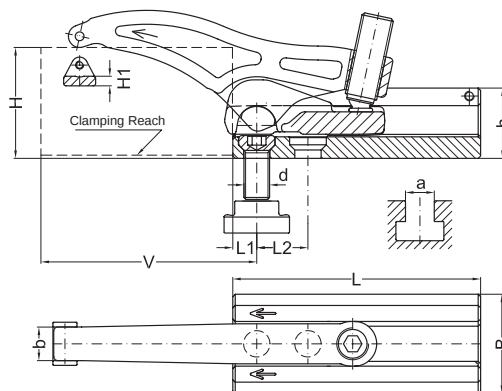
MQ 110 (complete)

Application Examples:

Metal cutting

- protected Trademark Multi Quick
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque
- greater horizontal adjustment due to the integrated sliding plate

Clamping Force: **Up to 40 kN**



			for T-Slots		for Tapped Holes										
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	H1	kN
5-53 K	-	-	110-053-13		-		12-80	95	12	20	54	18	44	5	25
	M08	10	110-053-0810		110-053-08										
	M10	12	110-053-1012		110-053-10										
	M12	14	110-053-1214		110-053-12										
10-73 L	-	-	110-073-13		-		12-110	135	12	28	54	18	44	5	25
	M08	10	110-073-0810		110-073-08										
	M10	12	110-073-1012		110-073-10										
	M12	14	110-073-1214		110-073-12										
5-60 K	-	-	110-060-17		-		15-92	110	15	25	64	21	50	6	35
	M14	16	110-060-1416		110-060-14										
	M16	18	110-060-1618		110-060-16										
11-83 L	-	-	110-083-17		-		15-132	155	15	32	64	21	50	6	35
	M14	16	110-083-1416		110-083-14										
	M16	18	110-083-1618		110-083-16										
5-65 K	-	-	110-065-21		-		19-105	125	19	30	80	25	55	7	40
	M18	20	110-065-1820		110-065-18										
	M20	22	110-065-2022		110-065-20										
	M20	28	110-065-2028		-										
12-93 L	-	-	110-093-21		-		19-151	175	19	38	80	25	55	7	40
	M18	20	110-093-1820		110-093-18										
	M20	22	110-093-2022		110-093-20										
	M20	28	110-093-2028		-										

- Clamping Arm/Sliding plate: Hardened alloy steel and Drop forged
- Clamping Shoe: Aluminium alloy ultrasonically tested and precision milled to protect the machine table

Multi-Quick MQ 110 (Spare Parts)



Clamping Shoe		Fixing Set		Clamping Arm with Sliding Plate		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
110-2-095-13		–		220-5-038-13		991-150-12-1		360-100-113		310-16-055		610-08	
110-2-095-0810		969-0810-29		K									
110-2-095-1012		969-1012-35											
110-2-095-1214		969-1214-35											
110-2-135-13		–		220-5-057-13		991-150-12-1		360-100-113		310-16-060		610-08	
110-2-135-0810		969-0810-29		L									
110-2-135-1012		969-1012-35											
110-2-135-1214		969-1214-35											
110-2-110-17		–		220-5-043-17		991-150-16-1		360-100-117		310-20-060		610-10	
110-2-110-1416		969-1416-41		K									
110-2-110-1618		969-1618-45											
110-2-155-17		–		220-5-068-17		991-150-16-1		360-100-117		310-20-070		610-10	
110-2-155-1416		969-1416-41		L									
110-2-155-1618		969-1618-45											
110-2-125-21		–		220-5-062-21		991-150-20-1		360-100-121		310-24-080		610-12	
110-2-125-1820		969-1820-51		K									
110-2-125-2022		969-2022-51											
110-2-125-2028		969-2028-60											
110-2-175-21		–		220-5-078-21		991-150-20-1		360-100-121		310-24-090		610-12	
110-2-175-1820		969-1820-51		L									
110-2-175-2022		969-2022-51											
110-2-175-2028		969-2028-60											

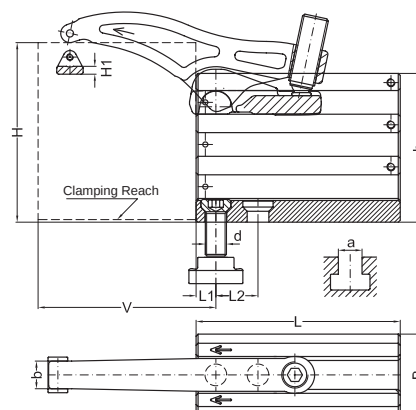
Multi-Quick

MQ 130 (complete)

Application Examples: Light metal cutting

- protected Trademark Multi Quick
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque
- greater horizontal adjustment due to the integrated sliding plate
- increased clamping heights due to the three level clamping shoe

Clamping Force: **Up to 35 kN**



			for T-Slots		for Tapped Holes										
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	H1	kN
5-109 K	—	—	130-109-13		—		12-80	95	12	20	56	18	100	5	20
	M08	10	130-109-0810		130-109-08										
	M10	12	130-109-1012		130-109-10										
	M12	14	130-109-1214		130-109-12										
10-128 L	—	—	130-128-13		—		12-110	135	12	28	56	18	100	5	20
	M08	10	130-128-0810		130-128-08										
	M10	12	130-128-1012		130-128-10										
	M12	14	130-128-1214		130-128-12										
5-124 K	—	—	130-124-17		—		15-92	110	15	25	66	21	114	6	30
	M14	16	130-124-1416		130-124-14										
	M16	18	130-124-1618		130-124-16										
11-146 L	—	—	130-146-17		—		15-132	155	15	32	60	21	114	6	30
	M14	16	130-146-1416		130-146-14										
	M16	18	130-146-1618		130-146-16										
5-142 K	—	—	130-142-21		—		19-106	125	19	32	80	25	134	7	35
	M18	20	130-142-1820		130-142-18										
	M20	22	130-142-2022		130-142-20										
	M20	28	130-142-2028		—										
12-169 L	—	—	130-169-21		—		19-151	175	19	38	80	25	134	7	35
	M18	20	130-169-1820		130-169-18										
	M20	22	130-169-2022		130-169-20										
	M20	28	130-169-2028		—										

- Clamping Arm/Sliding plate: Hardened alloy steel and drop forged
- Clamping Shoe: Aluminium alloy ultrasonically tested and precision milled to protect the machine table

Multi-Quick MQ 130 (Spare Parts)



Clamping Shoe		Fixing Set		Clamping Arm with Sliding Plate		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
130-2-095-13		–		220-5-038-13		991-150-12-1		360-100-113		310-16-055		610-08	
130-2-095-0810		969-0810-29		K									
130-2-095-1012		969-1012-35											
130-2-095-1214		969-1214-35											
130-2-135-13		–		220-5-057-13		991-150-12-1		360-100-113		310-16-060		610-08	
130-2-135-0810		969-0810-29		L									
130-2-135-1012		969-1012-35											
130-2-135-1214		969-1214-35											
130-2-110-17		–		220-5-043-17		991-150-16-1		360-100-117		310-20-060		610-10	
130-2-110-1416		969-1416-41		K									
130-2-110-1618		969-1618-45											
130-2-155-17		–		220-5-068-17		991-150-16-1		360-100-117		310-20-070		610-10	
130-2-155-1416		969-1416-41		L									
130-2-155-1618		969-1618-45											
130-2-125-21		–		220-5-062-21		991-150-20-1		360-100-121		310-24-070		610-12	
130-2-125-1820		969-1820-51		K									
130-2-125-2022		969-2022-51											
130-2-125-2028		969-2028-60											
130-2-175-21		–		220-5-078-21		991-150-20-1		360-100-121		310-24-090		610-12	
130-2-175-1820		969-1820-51		L									
130-2-175-2022		969-2022-51											
130-2-175-2028		969-2028-60											

Multi-Quick MQ 134 (complete)

Application Examples: Medium metal cutting

- protected as a registered design in Germany
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque
- greater horizontal adjustment due to the integrated sliding plate
- greater vertical adjustment due to the two level clamping shoe

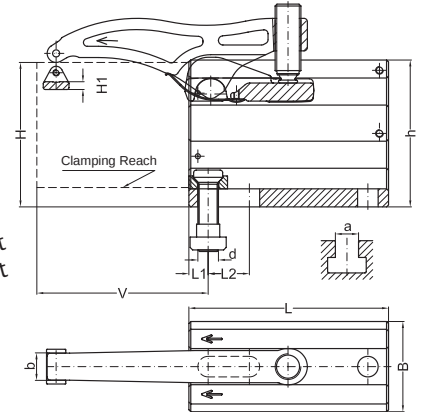
Clamping Force: **Up to 40 kN**



[optional]



■ even greater stepless horizontal adjustment due to elongated slot in clamping shoe



			for T-Slots		for Tapped Holes										
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	H1	kN
15-128	-	-	134-128-13		-		12-111	135	12	28	58	18	99	5	25
L	M08	10	134-128-0810		134-128-08										
	M10	12	134-128-1012		134-128-10										
	M12	14	134-128-1214		134-128-12										
20-146	-	-	134-146-17		-		15-134	155	15	32	70	21	114	6	35
L	M14	16	134-146-1416		134-146-14										
	M16	18	134-146-1618		134-146-16										
20-169	-	-	134-169-21		-		19-156	180	19	38	82	25	134	7	40
L	M18	20	134-169-1820		134-169-18										
	M20	22	134-169-2022		134-169-20										
	M20	28	134-169-2028		-										

- Clamping Arm/Sliding plate: Hardened alloy steel and drop forged
- Clamping Shoe: Aluminium alloy ultrasonically tested and precision milled to protect the machine table

Multi-Quick MQ 134 (Spare Parts)



Clamping Shoe		Fixing Set		Profile Nut		Clamping Arm with Sliding Plate		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
134-2-135-13		–		220-6-024-13		220-5-057-13		991-150-12-1		360-100-113		310-16-060		610-08	
134-2-135-0810		960-0810-40				L									
134-2-135-1012		960-1012-38													
134-2-135-1214		960-1214-40													
134-2-155-17		–		134-6-030-17		220-5-068-17		991-150-16-1		360-100-117		310-20-070		610-10	
134-2-155-1416		960-1416-55				L									
134-2-155-1618		960-1618-55													
134-2-180-21		–		134-6-038-21		220-5-078-21		991-150-20-1		360-100-121		310-24-090		610-12	
134-2-180-1820		960-1820-60				L									
134-2-180-2022		960-2022-68													
134-2-180-2028		960-2028-75													

Multi-Quick – Flexible clamping solutions

MQ 150 – 200

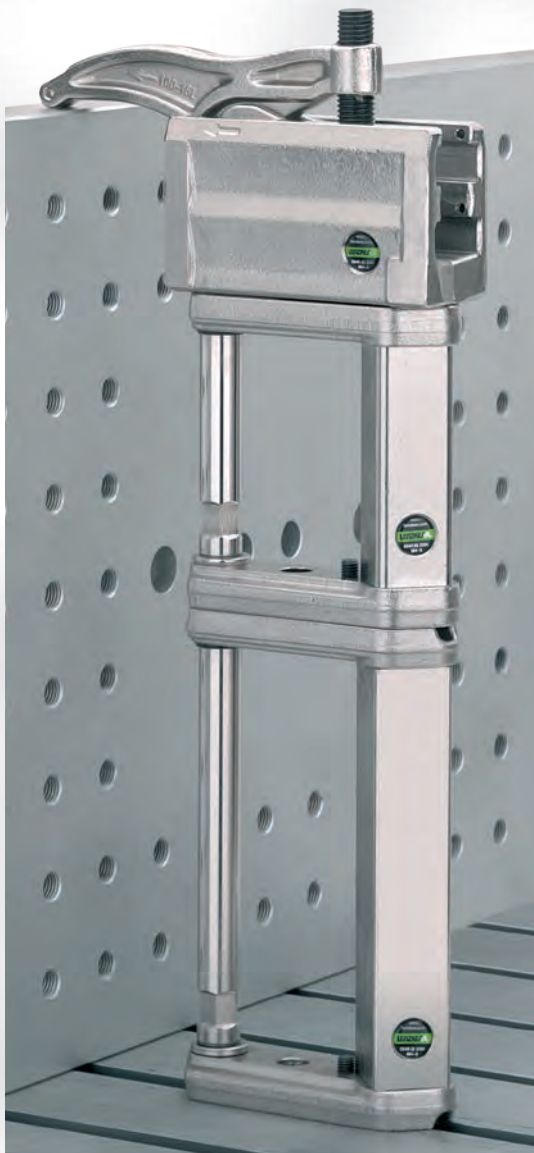
MQ 150/160 has a clamping force up to 40 kN.

These clamps offer exceptional stepless, vertical and horizontal, adjustment. The horizontal Profile Nut (only MQ 160) increases the stepless horizontal adjustment.

MQ 200 has a clamping force up to 60 kN.

These clamps offer, due to the integrated sliding plate and the two level clamping shoe, even more vertical and horizontal adjustment. The horizontal Profile Nut increases the stepless horizontal adjustment.





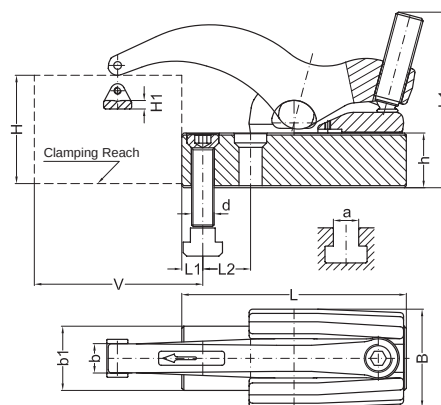
Multi-Quick MQ 150 (complete)

Clamping Force: **Up to 40 kN**

Application Examples: Metal cutting

- patented within the European Union
- strong clamping pressure for small clamping torque
- great stepless vertical and horizontal adjustment

- **Material: Hardened alloy steel**
- **Clamping Arm: Drop forged**



			for T-Slots		for Tapped Holes												
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	b1	h	h1	H1	kN
5-80 L	–	–	150-080-13		–		10-126	140	12	28	56	18	38	31	105	5	30
	M10	12	150-080-1012		150-080-10												
	M12	14	150-080-1214		150-080-12												
	M12	16	150-080-1216		–												
	M12	18	150-080-1218		–												
	–	–	150-080-17														
6-92 L	M16	18	150-080-1618		150-080-16		10-150	160	15	25	70	21	46	39	126	6	40
	–	–	150-092-17		–												
	M14	16	150-092-1416		150-092-14												
	M16	18	150-092-1618		150-092-16												
	M16	20	150-092-1620		–												
	M16	22	150-092-1622		–												
	–	–	150-092-21		–				19	32							
	M20	22	150-092-2022		150-092-20												

Multi-Quick MQ 150 (Spare Parts)



Clamping Rail		Fixing Set		Clamping Arm with sliding shoe		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
150-2-140-13		–		150-5-080-13		991-150-12-1		360-100-113		310-16-060		610-08	
150-2-140-1012		960-1012-48		L									
150-2-140-1214		960-1214-50											
150-2-140-1216		960-1216-50											
150-2-140-1218		960-1218-58											
150-2-140-17		–											
150-2-140-1618		960-1618-58										610-10	
150-2-160-17		–		150-5-092-17		991-150-16-1		360-100-117		310-20-070		610-10	
150-2-160-1416		960-1416-62		L									
150-2-160-1618		960-1618-65											
150-2-160-1620		960-1620-65											
150-2-160-1622		960-1622-70											
150-2-160-21		–											
150-2-160-2022		960-2022-75										610-12	

Multi-Quick MQ 160 (complete)

Clamping Force: **Up to 40 kN**

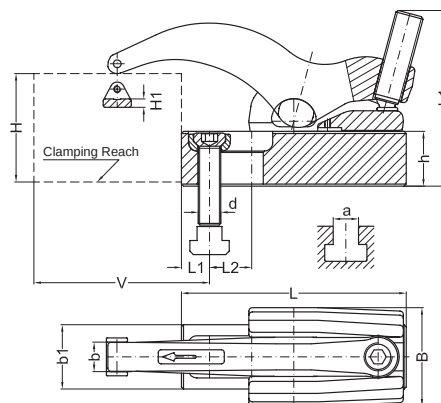


Application Examples:

Metal cutting

- patented within the European Union
- strong clamping pressure for small clamping torque
- great stepless vertical and horizontal adjustment

- **Material: Hardened alloy steel**
- **Clamping Arm: Drop forged**
- **Clamping Rail: Hardened alloy steel, with elongated slot**



			for T-Slots		for Tapped Holes												
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	b1	h	h1	H1	kN
5-80	-	-	160-080-13		-		16-130	140	16	25	56	18	38	31	105	5	30
L	M10	12	160-080-1012		160-080-10												
	M12	14	160-080-1214		160-080-12												
	M12	16	160-080-1216		-												
	M12	18	160-080-1218		-												
6-92	-	-	160-092-17		-		20-155	160	30	30	70	21	46	39	126	6	40
L	M14	16	160-092-1416		160-092-14												
	M16	18	160-092-1618		160-092-16												
	M16	20	160-092-1620		-												
	M16	22	160-092-1622		-												

Multi-Quick MQ 160 (Spare Parts)



Clamping Rail		Fixing Set		Profile Nut		Clamping Arm with sliding shoe		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
160-2-140-13		–		160-6-025-13		160-5-080-13		991-150-12-1		360-100-113		310-16-060		610-08	
160-2-140-1012		964-1012-48				L									
160-2-140-1214		964-1214-50													
160-2-140-1216		964-1216-50													
160-2-140-1218		964-1218-58													
160-2-160-17		–		160-6-030-17		160-5-092-17		991-150-16-1		360-100-117		310-20-070		610-10	
160-2-160-1416		964-1416-62				L									
160-2-160-1618		964-1618-65													
160-2-160-1620		964-1620-65													
160-2-160-1622		964-1622-70													

Multi-Quick MQ 200 (complete)

Application Examples: Injection moulding, metal cutting and metal forming

- protected as a registered design in Germany
- stepless vertically and horizontally adjustable
- strong clamping pressure for small clamping torque
- greater horizontal adjustment due to the integrated sliding plate
- greater vertical adjustment due to the two level clamping shoe

Clamping Force: **Up to 60 kN**

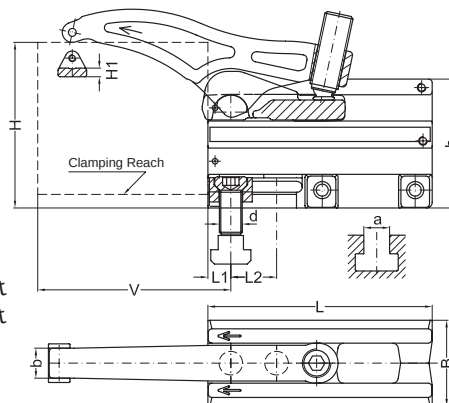
- **Material: Hardened alloy steel**
- **Clamping arm/Clamping shoe: Drop forged**



[optional]



■ even greater stepless horizontal adjustment due to elongated slot in clamping shoe



			for T-Slots		for Tapped Holes										
H	d	a	Part No.		Part No.		V	L	L1	L2	B	b	h	H1	kN
10-90 K	-	-	200-090-13		-		14-84	95	14	20	54	18	82	5	30
	M08	10	200-090-0810		200-090-08										
	M10	12	200-090-1012		200-090-10										
	M12	14	200-090-1214		200-090-12										
15-110 L	-	-	200-110-13		-		14-112	135	14	30	54	18	82	5	32
	M08	10	200-110-0810		200-110-08										
	M10	12	200-110-1012		200-110-10										
	M12	14	200-110-1214		200-110-12										
12-100 K	-	-	200-100-17		-		17-97	110	17	20	62	21	90	6	40
	M14	16	200-100-1416		200-100-14										
	M16	18	200-100-1618		200-100-16										
16-125 L	-	-	200-125-17		-		17-135	155	17	30	62	21	90	6	43
	M14	16	200-125-1416		200-125-14										
	M16	18	200-125-1618		200-125-16										
20-120 K	-	-	200-120-21		-		21-110	125	21	25	74	25	106	7	50
	M18	20	200-120-1820		200-120-18										
	M20	22	200-120-2022		200-120-20										
20-140 L	-	-	200-140-21		-		21-156	180	21	40	74	25	106	7	50
	M18	20	200-140-1820		200-140-18										
	M20	22	200-140-2022		200-140-20										
18-135 K	-	-	200-135-25		-		24-130	150	24	28	86	42	122	8	60
	M22	24	200-135-2224		200-135-22										
	M24	28	200-135-2428		200-135-24										
	M24	36	200-135-2436		-										
	-	-	200-135-31		-		29-135	150	27	20	86	42	122	8	60
	M30	36	200-135-3036		200-135-30										
20-160 L	-	-	200-160-25		-		24-184	210	24	44	86	33	122	8	60
	M22	24	200-160-2224		200-160-22										
	M24	28	200-160-2428		200-160-24										
	M24	36	200-160-2436		-										
	-	-	200-160-31		-		29-189	210	37	38	86	33	122	8	60
	M30	36	200-160-3036		200-160-30										

Multi-Quick MQ 200 (Spare Parts)



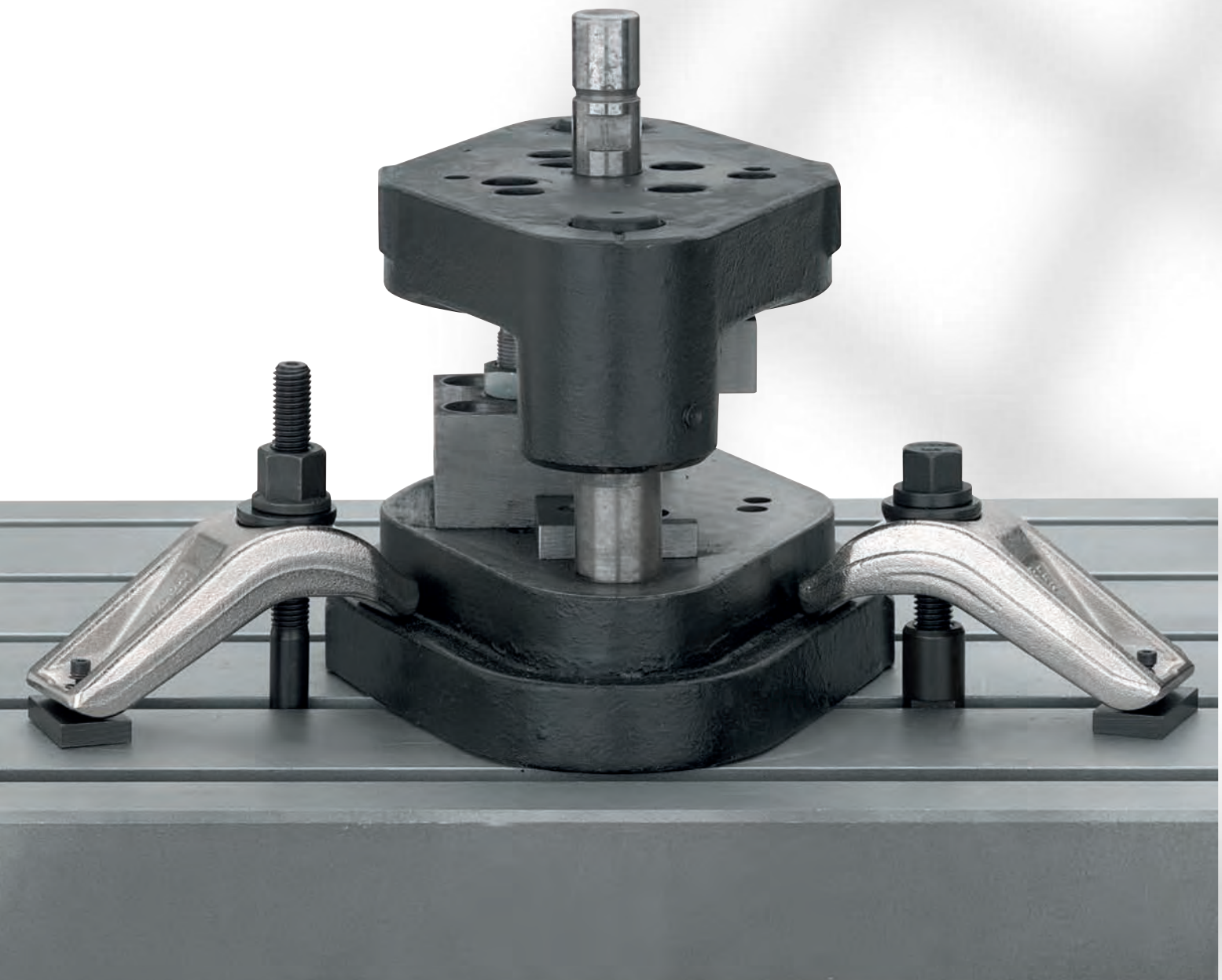
Clamping Shoe		Fixing Set		Profile Nut		Clamping Arm with Sliding Plate		Protection Plate		Spring with Screw		Ball Pressure Screw		Allen Key	
Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		Part No.	
200-2-095-13		–		200-6-024-13		220-5-038-13		991-150-12-1		360-100-113		310-16-055		610-08	
200-2-095-0810		960-0810-29				K									
200-2-095-1012		960-1012-35													
200-2-095-1214		960-1214-40													
200-2-135-13		–		220-6-024-13		220-5-057-13		991-150-12-1		360-100-113		310-16-060		610-08	
200-2-135-0810		960-0810-29				L									
200-2-135-1012		960-1012-35													
200-2-135-1214		960-1214-40													
200-2-110-17		–		220-6-030-17		220-5-043-17		991-150-16-1		360-100-117		310-20-060		610-10	
200-2-110-1416		960-1416-41				K									
200-2-110-1618		960-1618-48													
200-2-155-17		–		220-6-030-17		220-5-068-17		991-150-16-1		360-100-117		310-20-070		610-10	
200-2-155-1416		960-1416-41				L									
200-2-155-1618		960-1618-48													
200-2-125-21		–		220-6-038-21		220-5-062-21		991-150-20-1		360-100-121		310-24-070		610-12	
200-2-125-1820		960-1820-60				K									
200-2-125-2022		960-2022-60													
200-2-180-21		–		220-6-038-21		220-5-078-21		991-150-20-1		360-100-121		310-24-090		610-12	
200-2-180-1820		960-1820-60				L									
200-2-180-2022		960-2022-60													
200-2-150-25		–		200-6-044-25		220-5-072-25		991-150-24-1		360-100-125		310-24-080		610-12	
200-2-150-2224		960-2224-68				K									
200-2-150-2428		960-2428-74													
200-2-150-2436		960-2436-86													
200-2-150-31		–		220-6-050-31											
200-2-150-3036		960-3036-86													
200-2-210-25		–		220-6-044-25		220-5-085-25		991-150-24-1		360-100-125		310-24-090		610-12	
200-2-210-2224		960-2224-68				L									
200-2-210-2428		960-2428-78													
200-2-210-2436		960-2436-86													
200-2-210-31		–		220-6-050-31											
200-2-210-3036		960-3036-86													

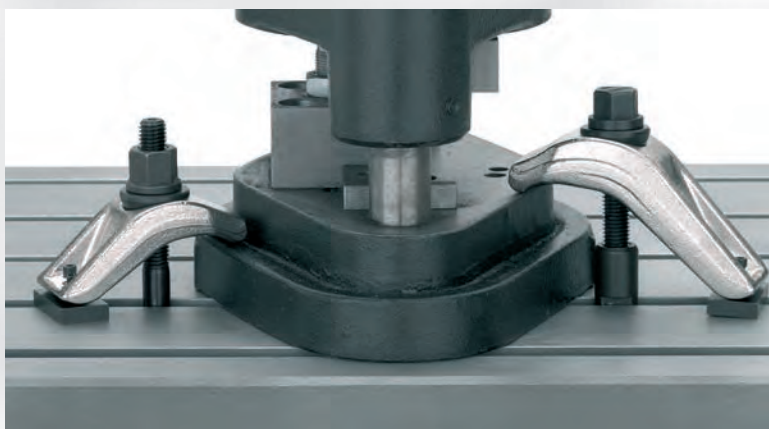
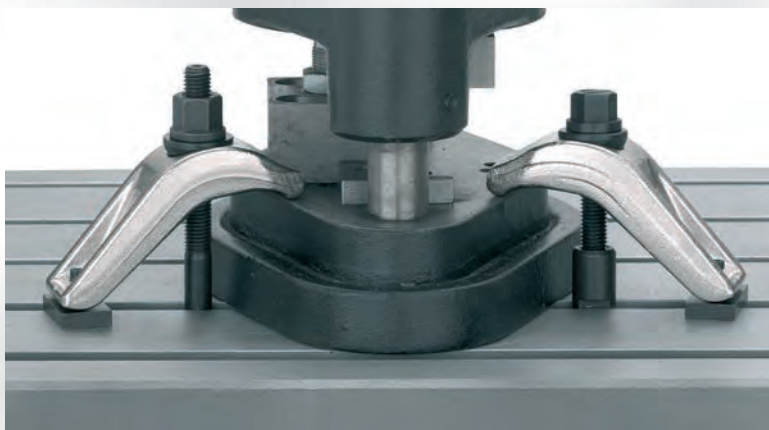
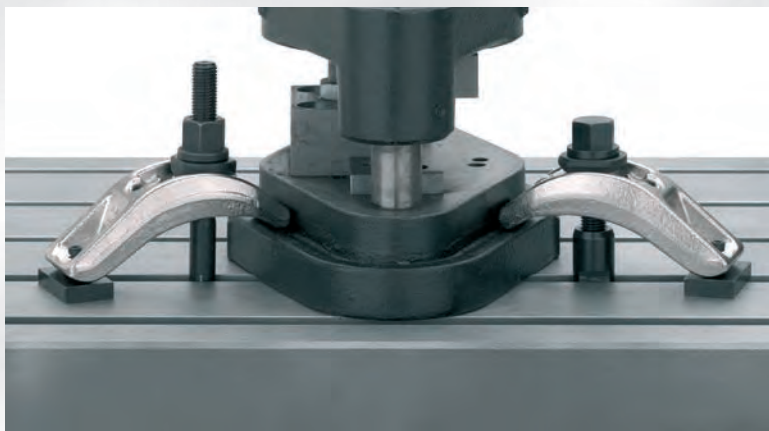
Clamping Frames – Flexible clamping solutions

S 10/S 30

S 10 and S 20 have a clamping force up to 70 kN. These clamps offer great stepless vertical adjustment. The S 20's are used when protruding bolts are obstructive.

S 30 and S 40 have a clamping force up to 70 kN. These clamps are adjustable both vertically and horizontally due to the unique grooved frame design and can clamp up to 260 mm high. The S 40's are used when protruding bolts are obstructive.





Clamping Frames

S10 – S20 (complete)

Application Examples:
 Pressure die casting, metal forming and heavy metal cutting

- stepless vertically adjustable
- S20: No protruding bolts
- very high clamping forces

Clamping Force: **Up to 45 kN**

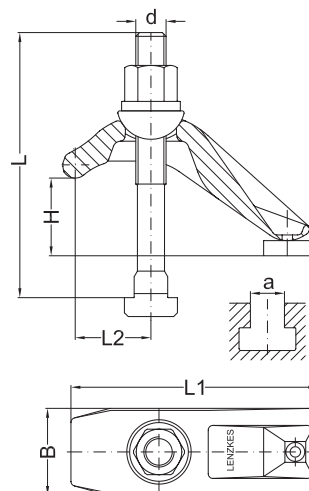
- Material: Hardened alloy steel
- Clamping frame: Drop forged



for T-Slots

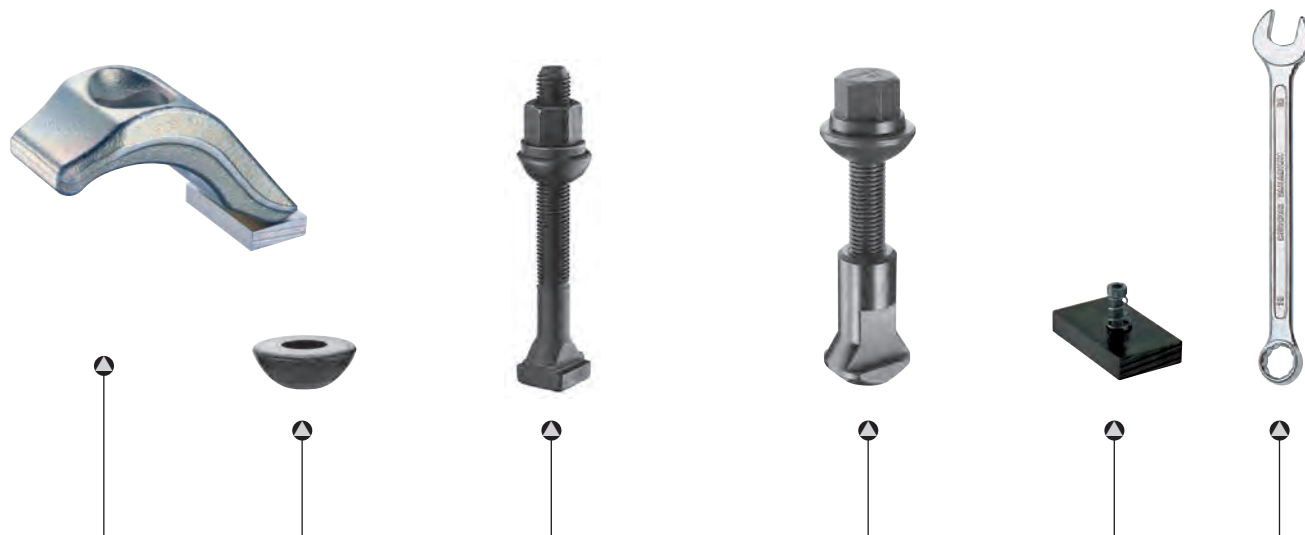


for T-Slots
(no protruding bolts)



			for T-Slots		for T-Slots (no protruding bolts)					
H	d	a	Part No.		Part No.		B	L1	L2	kN
0–45	M 8	10	–		020-045-0810		46	95	28–44	12
	M10	10	010-045-1010		–					18
	M10	12	–		020-045-1012					
	M12	12	010-045-1212		–					
	M12	14	010-045-1214		020-045-1214					20
	M14	16	010-045-1416		020-045-1416					30
	M16	16	010-045-1616		–					
	M16	18	010-045-1618		020-045-1618					
	M16	20	010-045-1620		020-045-1620					
	M16	22	010-045-1622		020-045-1622					
10–70	M10	12	010-070-1012		020-070-1012		46	125	34–35	18
	M12	12	010-070-1212		–					20
	M12	14	010-070-1214		020-070-1214					
	M14	16	010-070-1416		020-070-1416					
	M16	16	010-070-1616		–					32
	M16	18	010-070-1618		020-070-1618					
10–70	M18	20	010-070-1820		020-070-1820		52	125	39–58	45
	M20	20	010-070-2020		–					
	M20	22	010-070-2022		020-070-2022					
	M20	24	010-070-2024		020-070-2024					
	M20	28	010-070-2028		020-070-2028					

Clamping Frames S 10 – S 20 (Spare Parts)



Clamping Frame		Spherical Seat Washer		Fixing Set for T-Slot			Fixing Set for Ø20			Pressure Plate Assembly		Wrench	
Part No.		Part No.		Part No.	L		Part No.	L		Part No.		Part No.	
010-045-17		019-3510		–	–		920-045-0810	65		991-010		620-13	
				910-045-1010	100		–	–				620-16	
		019-3512		–	–		920-045-1012	65				620-18	
				910-045-1212	100		–	–					
				910-045-1214	112		920-045-1214	65					
		019-3516		910-045-1416	112		920-045-1416	70				620-22	
				910-045-1616	125		–	–				620-24	
				910-045-1618	125		920-045-1618	75					
				910-045-1620	150		920-045-1620	75					
				910-045-1622	150		920-045-1622	80					
010-070-17		019-3512		910-070-1012	125		920-070-1012	75		991-010		620-16	
				910-070-1212	125		–	–				620-18	
				910-070-1214	125		920-070-1214	80					
		019-3516		910-070-1416	140		920-070-1416	85				620-22	
				910-070-1616	160		–	–				620-24	
				910-070-1618	150		920-070-1618	85					
010-070-21		019-4020		910-070-1820	160		920-070-1820	95		991-030		620-27	
				910-070-2020	160		–	–				620-30	
				910-070-2022	160		920-070-2022	95					
				910-070-2024	180		920-070-2024	95					
				910-070-2028	180		920-070-2028	105					

Clamping Frames

S10 – S20 (complete)

Application Examples:
 Pressure die casting, metal forming and heavy metal cutting

- stepless vertically adjustable
- S20: No protruding bolts
- very high clamping forces

Clamping Force: **Up to 70 kN**

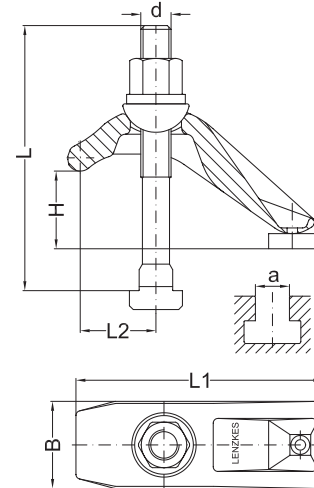
- **Material:** Hardened alloy steel
- **Clamping Frames:** Drop forged



for T-Slots

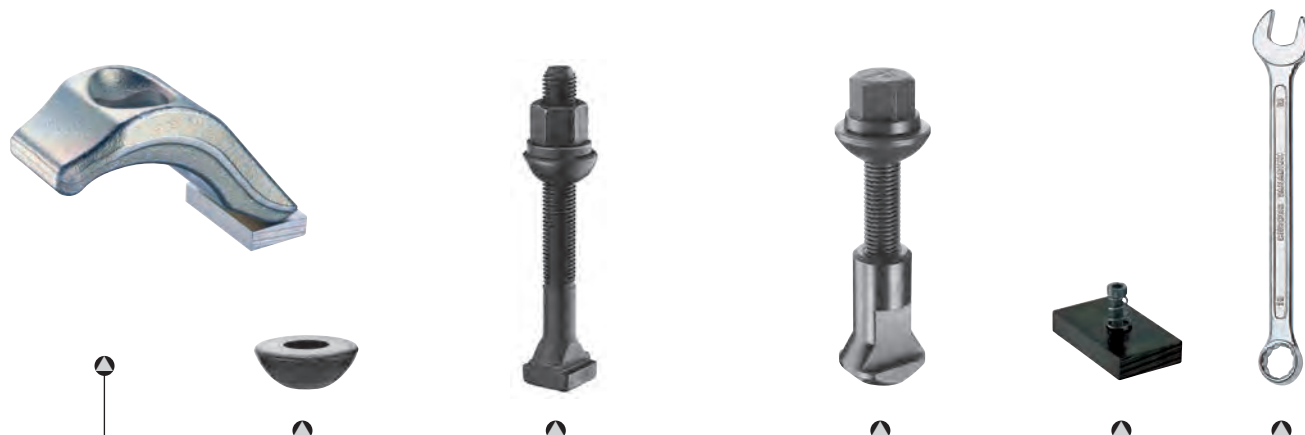


for T-Slots
(no protruding bolts)



			for T-Slots		for T-Slots (no protruding bolts)					
H	d	a	Part No.		Part No.		B	L1	L2	kN
30–110	M10	12	010-110-1012		020-110-1012		61	162	40–65	18
	M12	12	010-110-1212		–					
	M12	14	010-110-1214		020-110-1214					22
	M14	16	010-110-1416		020-110-1416					35
	M16	16	010-110-1616		–					
	M16	18	010-110-1618		020-110-1618					
	M18	20	010-110-1820		020-110-1820				50	
	M20	20	010-110-2020		–					
	M20	22	010-110-2022		020-110-2022				60	
	M22	24	010-110-2224		020-110-2224					
	M24	24	010-110-2424		–					
	M24	28	010-110-2428		020-110-2428					
90–180	M24	36	010-110-2436		020-110-2436		62	200	45–70	
	M12	14	010-180-1214		020-180-1214					25
	M14	16	010-180-1416		020-180-1416					35
	M16	16	010-180-1616		–					
	M16	18	010-180-1618		020-180-1618					40
	M18	20	010-180-1820		020-180-1820					50
	M20	20	010-180-2020		–					
	M20	22	010-180-2022		020-180-2022					
	M20	24	–		020-180-2024					
	M22	24	010-180-2224		020-180-2224					60
	M24	24	010-180-2424		–					
	M24	28	010-180-2428		020-180-2428					70
	M24	36	010-180-2436		020-180-2436					
	M24	42	010-180-2442		020-180-2442					

Clamping Frames S 10 – S 20 (Spare Parts)



Clamping Frame		Spherical Seat Washer		Fixing Set for T-Slot			Fixing Set for 020			Pressure Plate Assembly		Wrench	
Part No.		Part No.		Part No.	L		Part No.	L		Part No.		Part No.	
010-110-25		019-4516		910-110-1012	180		920-110-1012	100		991-060		620-16	
				910-110-1212	180		–	–				620-18	
				910-110-1214	180		920-110-1214	105				620-22	
		019-4516		910-110-1416	190		920-110-1416	110				620-24	
				910-110-1616	200		–	–				620-27	
				910-110-1618	200		920-110-1618	110				620-30	
		019-4520		910-110-1820	200		920-110-1820	115				620-32	
				910-110-2020	200		–	–				620-36	
				910-110-2022	200		920-110-2022	120					
		019-4524		910-110-2224	200		920-110-2224	130					
				910-110-2424	200		–	–					
				910-110-2428	200		920-110-2428	130					
				910-110-2436	230		920-110-2436	145					
010-180-25		019-4516		910-180-1214	250		920-180-1214	170		991-060		620-18	
				910-180-1416	250		920-180-1416	175				620-22	
				910-180-1616	250		–	–				620-24	
				910-180-1618	250		920-180-1618	175				620-27	
		019-4520		910-180-1820	265		920-180-1820	180				620-30	
				910-180-2020	265		–	–					
				910-180-2022	280		920-180-2022	185					
				–	–		920-180-2024	185					
		019-4524		910-180-2224	280		920-180-2224	190				620-32	
				910-180-2424	290		–	–				620-36	
				910-180-2428	290		920-180-2428	190					
				910-180-2436	315		920-180-2436	190					
				910-180-2442	315		920-180-2442	190					

Clamping Frames

S 30 – S 40 (complete)

Clamping Force: **Up to 30 kN**

Application Examples:

Injection moulding, metal forming and metal cutting

- adjustable both vertically and horizontally due to the unique grooved frame design
- S 40: No protruding bolts

- Material: Hardened alloy steel
- Clamping Frames: Drop forged



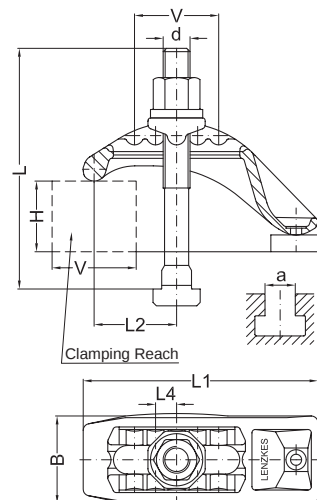
for T-Slots



for Tapped Holes



for T-Slots
(no protruding bolts)



			for T-Slots		for Tapped Holes		for T-Slots (no protruding bolts)							
H	d	a	Part No.		Part No.		Part No.		V	B	L1	L2	L4	kN
0–45	M08	10	–		–		040-045-0810		36	48	105	20–65	12	12
	M10	10	030-045-1010		–		–							
	M10	12	–		030-045-10		040-045-1012							15
	M12	12	030-045-1212		–		–							
	M12	14	030-045-1214		030-045-12		040-045-1214							
0–45	M14	16	030-045-1416		030-045-14		040-045-1416		36	53	110	20–65	12	25
	M16	16	030-045-1616		–		–							
	M16	18	030-045-1618		030-045-16		040-045-1618							
	M16	20	030-045-1620		–		040-045-1620							
	M16	22	030-045-1622		–		040-045-1622							
10–70	M10	12	030-070-1012		030-070-10		040-070-1012		50	53	140	22–72	13	18
	M12	12	030-070-1212		–		–							
	M12	14	030-070-1214		030-070-12		040-070-1214							
	M14	16	030-070-1416		030-070-14		040-070-1416							25
	M16	16	030-070-1616		–		–							
	M16	18	030-070-1618		030-070-16		040-070-1618							
30–110	M10	12	030-110-1012		–		040-110-1012		75	53	190	25–95	15	18
	M12	12	030-110-1212		–		–							
	M12	14	030-110-1214		030-110-12		040-110-1214							20
	M14	16	030-110-1416		030-110-14		040-110-1416							30
	M16	16	030-110-1616		–		–							
	M16	18	030-110-1618		030-110-16		040-110-1618							

Clamping Frames S 30 – S 40 (Spare Parts)



Clamping Frame		Pressure Piece		Fixing Set for T-Slot		Fixing Set for Tapped Holes		Fixing Set for Ø40		Pressure Plate Assembly		Wrench	
Part No.		Part No.		Part No.	L	Part No.	L	Part No.	L	Part No.		Part No.	
030-045-13		039-2812		–	–	–	–	940-045-0810	65	991-010		620-13	
				930-045-1010	100	–	–	–	–			620-16	
				–	–	930-045-10	112	940-045-1012	65			620-18	
				930-045-1212	100	–	–	–	–				
				930-045-1214	112	930-045-12	112	940-045-1214	65				
030-045-17		039-3216		930-045-1416	112	930-045-14	125	940-045-1416	70	991-020		620-22	
				930-045-1616	125	–	–	–	–			620-24	
				930-045-1618	125	930-045-16	125	940-045-1618	75				
				930-045-1620	125	–	–	940-045-1620	80				
				930-045-1622	125	–	–	940-045-1622	80				
030-070-17	039-3212			930-070-1012	132	930-070-10	140	940-070-1012	75	991-030		620-16	
				930-070-1212	132	–	–	–	–			620-18	
				930-070-1214	132	930-070-12	140	940-070-1214	80				
	039-3216			930-070-1416	140	930-070-14	150	940-070-1416	85			620-22	
				930-070-1616	160	–	–	–	–			620-24	
				930-070-1618	150	930-070-16	160	940-070-1618	85				
030-110-17	039-3212			930-110-1012	170	–	–	940-110-1012	100	991-030		620-16	
				930-110-1212	180	–	–	–	–			620-18	
				930-110-1214	180	930-110-12	200	940-110-1214	105				
	039-3216			930-110-1416	190	930-110-14	200	940-110-1416	110			620-22	
				930-110-1616	200	–	–	–	–			620-24	
				930-110-1618	200	930-110-16	200	940-110-1618	110				

Clamping Frames

S 33 – S 45 (complete)

Clamping Force: **Up to 60 kN**

Application Examples:
 Injection moulding, metal forming and metal cutting

- adjustable both vertically and horizontally due to the unique grooved frame design
- greater clamping force than S 30 or S 40
- S 45: No protruding bolts

- **Material:** Hardened alloy steel, for higher clamping force
- **Clamping Frames:** Drop forged



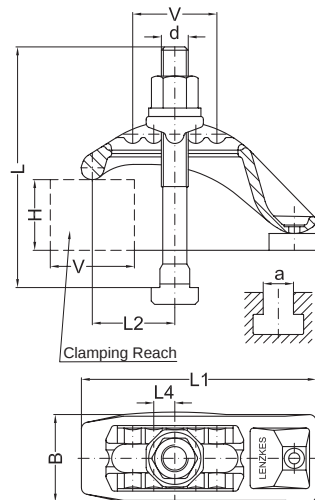
for T-Slots



for Tapped Holes



for T-Slots
(no protruding bolts)



			for T-Slots	for Tapped Holes	for T-Slots (no protruding bolts)						
H	d	a	Part No.	Part No.	Part No.	V	B	L1	L2	L4	kN
10–70	M18	20	033-070-1820	033-070-18	045-070-1820	50	60	152	28–78	13	35
	M20	20	033-070-2020	–	–						45
	M20	22	033-070-2022	033-070-20	045-070-2022						
	M20	24	033-070-2024	–	045-070-2024						
	M20	28	033-070-2028	–	045-070-2028						
10–80	M16	18	033-080-1618	033-080-16	–	60	68	170	30–90	15	35
	M18	20	033-080-1820	–	–						50
	M20	20	033-080-2020	–	–						
	M20	22	033-080-2022	033-080-20	045-080-2022						
	M20	24	–	–	045-080-2024						
	M20	28	–	–	045-080-2028						
	M22	24	033-080-2224	033-080-22	–						55
	M24	24	033-080-2424	–	–						
	M24	28	033-080-2428	033-080-24	045-080-2428						
30–110	M24	36	033-080-2436	–	–						
	M18	20	033-110-1820	033-110-18	045-110-1820	75	60	194	30–110	15	50
	M20	20	033-110-2020	–	–						
	M20	22	033-110-2022	033-110-20	045-110-2022						
	M20	24	033-110-2024	–	045-110-2024						
30–110	M22	24	033-110-2224	033-110-22	045-110-2224	75	68	200	30–110	15	50
	M24	24	033-110-2424	–	–						60
	M24	28	033-110-2428	033-110-24	045-110-2428						
	M24	32	033-110-2432	–	045-110-2432						
	M24	36	033-110-2436	–	045-110-2436						
	M30	–	–	033-110-2430	–						

Clamping Frames

S 33 – S 45 (Spare Parts)



Clamping Frame		Pressure Piece		Fixing Set for T-Slot		Fixing Set for Tapped Holes		Fixing Set for 045		Pressure Plate Assembly		Wrench	
Part No.		Part No.		Part No.	L	Part No.	L	Part No.	L	Part No.		Part No.	
033-070-21		039-4020		930-070-1820	160	930-070-18	160	940-070-1820	95	991-040		620-27	
				930-070-2020	160	–	–	–	–			620-30	
				930-070-2022	160	930-070-20	160	940-070-2022	95				
				930-070-2024	170	–	–	940-070-2024	105				
				930-070-2028	180	–	–	940-070-2028	105				
033-080-25		039-4516		930-080-1618	160	930-080-16	160	–	–	991-070		620-24	
				930-080-1820	160	–	–	–	–			620-27	
		039-4520		930-080-2020	160	–	–	–	–			620-30	
				930-080-2022	180	930-080-20	180	940-080-2022	112				
				–	–	–	–	940-080-2024	120				
				–	–	–	–	940-080-2028	120				
		039-4524		930-080-2224	200	930-080-22	190	–	–			620-32	
				930-080-2424	200	–	–	–	–			620-36	
				930-080-2428	200	930-080-24	200	940-080-2428	115				
				930-080-2436	224	–	–	–	–				
033-110-21		039-4020		930-110-1820	200	930-110-18	212	940-110-1820	115	991-060		620-27	
				930-110-2020	200	–	–	–	–			620-30	
				930-110-2022	212	930-110-20	224	940-110-2022	120				
				930-110-2024	224	–	–	940-110-2024	130				
033-110-25		039-4524		930-110-2224	224	930-110-22	224	940-110-2224	130	991-070		620-32	
				930-110-2424	224	–	–	–	–			620-36	
				930-110-2428	224	930-110-24	250	940-110-2428	130				
				930-110-2432	230	–	–	940-110-2432	145				
				930-110-2436	230	–	–	940-110-2436	145				
				–	–	930-110-24-30	250	–	–				

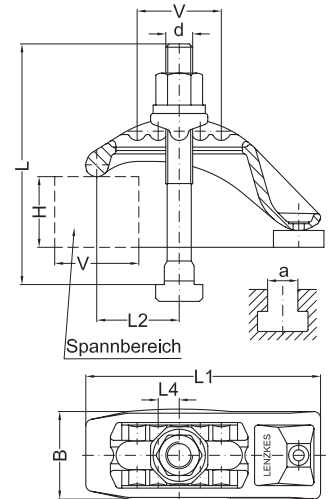
Clamping Frames S 33 – S 45 (complete)

Clamping Force: **Up to 70 kN**

Application Examples:
Injection moulding, metal forming and metal cutting

- adjustable both vertically and horizontally due to the unique grooved frame design
- greater clamping force than S 30 or S 40
- S 45: No protruding bolts

- **Material:** Hardened alloy steel, for higher clamping force
- **Clamping Frames:** Drop forged



			for T-Slots		for Tapped Holes		for T-Slots (no protruding bolts)							
H	d	a	Part No.		Part No.		Part No.		V	B	L1	L2	L4	kN
40–120	M20	20	033-120-2020		–		–		64	85	215	45–109	16	50
	M20	22	033-120-2022		033-120-20		–							
	M24	24	033-120-2424		–		–							60
	M24	28	033-120-2428		033-120-24		–							
	M30	36	033-120-3036		033-120-30		–							70
	M30	42	033-120-3042		–		–							
60–160	M20	20	033-160-2020		–		–		80	85	250	45–125	16	50
	M20	22	033-160-2022		033-160-20		045-160-2022							
	M24	24	033-160-2424		–		–							60
	M24	28	033-160-2428		033-160-24		045-160-2428							
	M30	36	033-160-3036		033-160-30		–							70
	M30	42	033-160-3042		–		–							
90–180	M16	18	033-180-1618		033-180-16		045-180-1618		90	70	240	35–125	15	35
	M18	20	033-180-1820		033-180-18		045-180-1820							50
	M20	20	033-180-2020		–		–							
	M20	22	033-180-2022		033-180-20		045-180-2022							
	M20	24	–		–		045-180-2024							
	M22	24	033-180-2224		–		045-180-2224							
	M24	24	033-180-2424		–		–							60
	M24	28	033-180-2428		033-180-24		045-180-2428							
	M24	36	033-180-2436		–		045-180-2436							
	M30	–	–		033-180-24-30		–							
130–260	M16	18	033-260-1618		–		045-260-1618		90	70	280	40–130	15	35
	M18	20	033-260-1820		–		–							
	M20	22	033-260-2022		033-260-20		045-260-2022							50
	M20	24	–		–		045-260-2024							
	M22	24	033-260-2224		–		–							
	M24	28	033-260-2428		033-260-24		045-260-2428							
	M24	36	033-260-2436		–		–							60
	M30	–	–		033-260-24-30		–							

Clamping Frames

S 33 – S 45 (Spare Parts)



Clamping Frame		Pressure Piece		Fixing Set for T-Slot		Fixing Set for Tapped Holes		Fixing Set for 045		Pressure Plate Assembly		Wrench	
Part No.		Part No.		Part No.	L	Part No.	L	Part No.	L	Part No.		Part No.	
033-120-31		038-6220		930-120-2020	250	–	–	–	–	991-070		620-30	
				930-120-2022	250	930-120-20	250	–	–				
		038-6224		930-120-2424	250	–	–	–	–			620-36	
				930-120-2428	250	930-120-24	250	–	–				
		038-6230		930-120-3036	280	930-120-30	280	–	–			620-46	
				930-120-3042	290	–	–	–	–				
033-160-31		038-6220		930-160-2020	265	–	–	–	–	991-070		620-30	
				930-160-2022	280	930-160-20	300	940-160-2022	165				
		038-6224		930-160-2424	290	–	–	–	–			620-36	
				930-160-2428	290	930-160-24	315	940-160-2428	170				
		038-6230		930-160-3036	315	930-160-30	315	–	–			620-46	
				930-160-3042	315	–	–	–	–				
033-180-25	039-4516	039-4520		930-180-1618	265	930-180-16	280	940-180-1618	175	991-070		620-24	
				930-180-1820	265	930-180-18	280	940-180-1820	180				
				930-180-2020	265	–	–	–	–			620-30	
				930-180-2022	280	930-180-20	300	940-180-2022	185				
				–	–	–	–	940-180-2024	185				
	039-4524			930-180-2224	280	–	–	940-180-2224	190			620-32	
				930-180-2424	290	–	–	–	–				
				930-180-2428	290	930-180-24	315	940-180-2428	190			620-36	
				930-180-2436	290	–	–	940-180-2436	190				
				–	–	930-180-24-30	315	–	–				
033-260-25	039-4516	039-4520		930-260-1618	360	–	–	940-260-1618	215	991-070		620-24	
				930-260-1820	360	–	–	–	–				
				930-260-2022	365	930-260-20	385	940-260-2022	225			620-30	
				–	–	–	–	940-260-2024	225				
	039-4524			930-260-2224	370	–	–	–	–			620-32	
				930-260-2428	380	930-260-24	400	940-260-2428	230				
				930-260-2436	380	–	–	–	–			620-36	
				–	–	930-260-24-30	400	–	–				

Extension Blocks – Overcoming various clamping heights

B 50/A 58

B 50 has a holding force up to 60 kN.

The Extension Blocks made from extra strong aluminium alloy are an ideal addition to the MQ-Series clamps. They are generally used for pressing, stamping, milling and drilling.

A 58 has a holding force up to 80 kN.

The Extension Blocks made from steel are a versatile addition to the MQ-Series clamps. They are generally used for injection moulding, pressing, stamping, milling and drilling up to 1,000 mm.





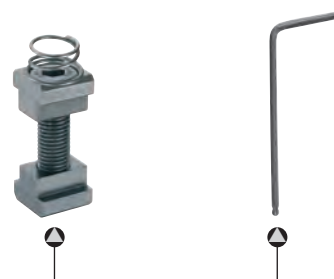
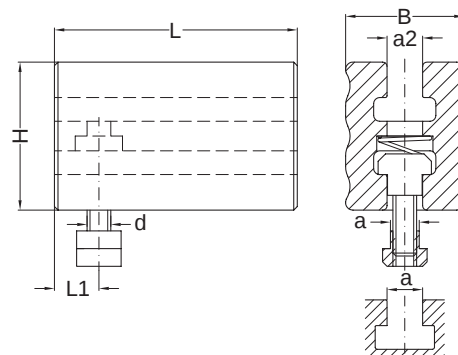
Extension Blocks B 50 (complete)

■ An ideal addition to the MO-Series clamps
for increased clamping heights

Holding Force: **Up to 60 kN**

■ Material: Aluminium alloy

■ Long style



				for T-Slots		for Tapped Holes						Fixing Set with Spring		Allen Key	
H	d	a	a2	Part No.		Part No.		L	B	L1	kN	Part No.	L	Part No.	
50	M 8	10	12	053-050-0810-8		053-050-08-8		82	40	15	15	950-0810-8	30	610-06	
	M 8	12		053-050-0812-8		—						950-0812-8	30		
	M10	12		053-050-1012-8		053-050-10-8					20	950-1012-8	35		
	M 8	10		050-050-0810		050-050-08		125	40	20	15	950-050-0810	30		
	M 8	12		050-050-0812		—						950-0812-8	30		
	M10	12		050-050-1012		050-050-10					20	950-050-1012	35		
110	M08	10	12	053-110-0810-8		053-110-08-8		82	40	15	15	950-0810-8	30	610-06	
	M08	12		053-110-0812-8		—						950-0812-8	30		
	M10	12		053-110-1012-8		053-110-10-8					20	950-1012-8	35		
	M08	10		050-110-0810		050-110-08		125	40	20	15	950-050-0810	30		
	M08	12		050-110-0812		—						950-0812-8	30		
	M10	12		050-110-1012		050-110-10					20	950-050-1012	35		
55	M12	14	14	053-055-1214-8		053-055-12-8		82	45	20	30	950-1214-8	36	610-08	
				053-055-1214		053-055-12		135				950-050-1214	38		
120				053-120-1214		053-120-12									
65	M14	16	16	050-065-1416		050-065-14		125	55	25	35	950-050-1416	48	610-10	
125				050-125-1416		050-125-14									
70	M16	18	18	053-070-1618		053-070-16		155	60	25	40	950-050-1618	55		
130				053-130-1618		053-130-16									
85	M18	20	20	050-085-1820		050-085-18		180	66	25	50	950-050-1820	60	610-12	
175				050-175-1820		050-175-18									
90	M20	22	22	053-090-2022		053-090-20		175	70	25	50	950-050-2022	68		
180				053-180-2022		053-180-20									
100	M22	24	24	050-100-2224		050-100-22		180	84	30	60	950-050-2224	80		
190				050-190-2224		050-190-22									
110	M24	28	28	053-110-2428		053-110-24		205	90	30	60	950-050-2428	86		
200				053-200-2428		053-200-24									

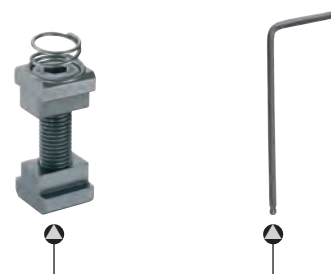
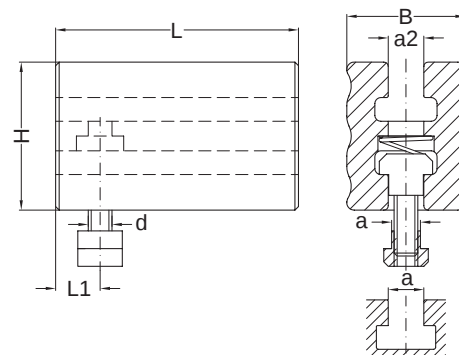
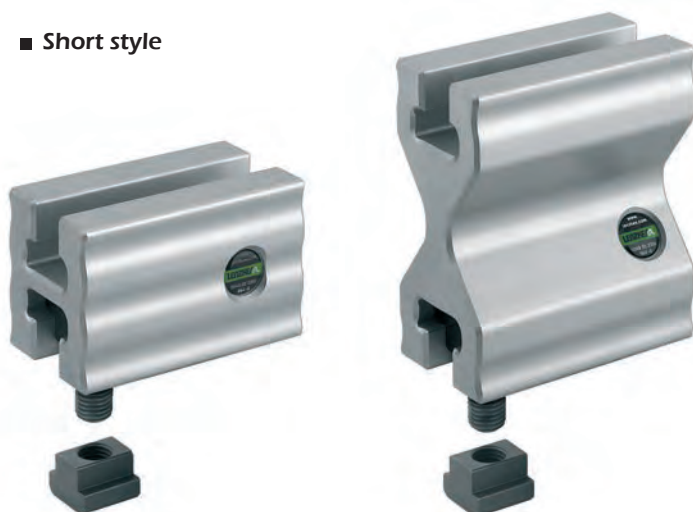
- An ideal addition to the MQ-Series clamps for increased clamping heights

Extension Blocks B 50 (complete)

- Material: Aluminium alloy

Holding Force: **Up to 60 kN**

- Short style



				for T-Slots		for Tapped Holes						Fixing Set with Spring			Allen Key 	
H	d	a	a2	Part No.		Part No.		L	B	L1	kN	Part No.	L		Part No.	
50	M08	10	12	054-050-0810-8		054-050-08-8		65	40	15	15	950-0810-8	30		610-06	
	M08	12		054-050-0812-8		—					950-0812-8	30				
	M10	12		054-050-1012-8		054-050-10-8					20	950-1012-8	35			
50	M08	10		051-050-0810		051-050-08		80	40	20	15	950-050-0810	30			
	M08	12		051-050-0812		—					950-0812-8	30				
	M10	12		051-050-1012		051-050-10					20	950-050-1012	35			
110	M08	10	12	054-110-0810-8		054-110-08-8		65	40	15	15	950-0810-8	30		610-06	
	M08	12		054-110-0812-8		—					950-0812-8	30				
	M10	12		054-110-1012-8		054-110-10-8					20	950-1012-8	35			
	M08	10		051-110-0810		051-110-08		80	40	20	15	950-050-0810	30			
	M08	12		051-110-0812		—					950-050-0812	30				
	M10	12		051-110-1012		051-110-10					20	950-050-1012	35			
—	—	—	—	—		—		—	—	—	—	—	—		—	
55	M12	14	14	054-055-1214		054-055-12		95	45	20	30	950-050-1214	38		610-08	
120				054-120-1214	054-120-12											
65	M14	16	16	051-065-1416		051-065-14		80	55	25	35	950-050-1416	48		610-10	
125				051-125-1416	051-125-14											
70	M16	18	18	054-070-1618		054-070-16		110	60	25	40	950-050-1618	55			
130				054-130-1618	054-130-16											
85	M18	20	20	051-085-1820		051-085-18		100	66	25	50	950-050-1820	60		610-12	
175				051-175-1820	051-175-18											
90	M20	22	22	054-090-2022		054-090-20		125	70	25	50	950-050-2022	68			
180				054-180-2022	054-180-20											
100	M22	24	24	051-100-2224		051-100-22		100	84	30	60	950-050-2224	80			
190				054-190-2224	054-190-22		150									
110	M24	28	28	054-110-2428		054-110-24		150	90	30	60	950-050-2428	86			
200				054-200-2428	054-200-24											

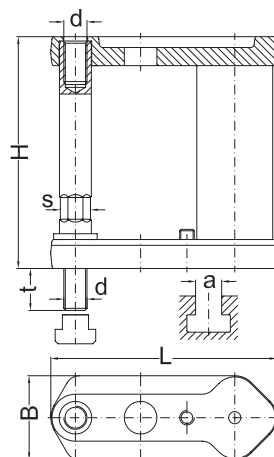
Extension Blocks

A 58 (complete)

- patented in DE
- an ideal addition to the MQ-Series clamps for great clamping heights
- safer working heights achievable by securing directly into the machine table due to unique design of the block

Holding Force: **Up to 80 kN**

- **Material:** Hardened alloy steel
- **Connecting element:** Drop forged, Tempered steel
- **Clamping Rod:** Hardness class 10.9



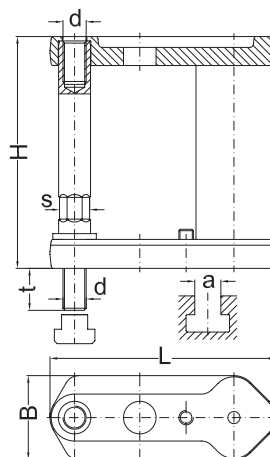
			for T-Slots		for Tapped Holes							Allen Key	
H	d	a	Part No.		Part No.		B	L	t	s	kN	Part No.	
80	M08	10	058-080-0810		058-080-08		48	135	16	16	16	622-1618	
125			058-125-0810		058-125-08								
160			058-160-0810		058-160-08								
80	M10	12	058-080-1012		058-080-10		48	135	19	16	25	622-1618	
125			058-125-1012		058-125-10								
160			058-160-1012		058-160-10								
200			058-200-1012		058-200-10								
250			058-250-1012		058-250-10								
80	M12	14	058-080-1214		058-080-12		48	135	22	16	35	622-1618	
125			058-125-1214		058-125-12								
160			058-160-1214		058-160-12								
200			058-200-1214		058-200-12								
250			058-250-1214		058-250-12								
80	M14	16	058-080-1416		058-080-14		58	155	25	18	50	622-1618	
125			058-125-1416		058-125-14								
160			058-160-1416		058-160-14								
200			058-200-1416		058-200-14								
250			058-250-1416		058-250-14								
80	M16	18	058-080-1618		058-080-16		58	155	29	18	70	622-1618	
125			058-125-1618		058-125-16								
160			058-160-1618		058-160-16								
200			058-200-1618		058-200-16								
250			058-250-1618		058-250-16								
315			058-315-1618		058-315-16								

- patented in DE
- an ideal addition to the MQ-Series clamps for great clamping heights
- safer working heights achievable by securing directly into the machine table due to unique design of the block

Extension Blocks A 58 (complete)

- **Material:** Hardened alloy steel
- **Connecting Element:** Drop forged, Tempered steel
- **Clamping Rod:** Hardness class 10.9

Holding Force: **Up to 80 kN**

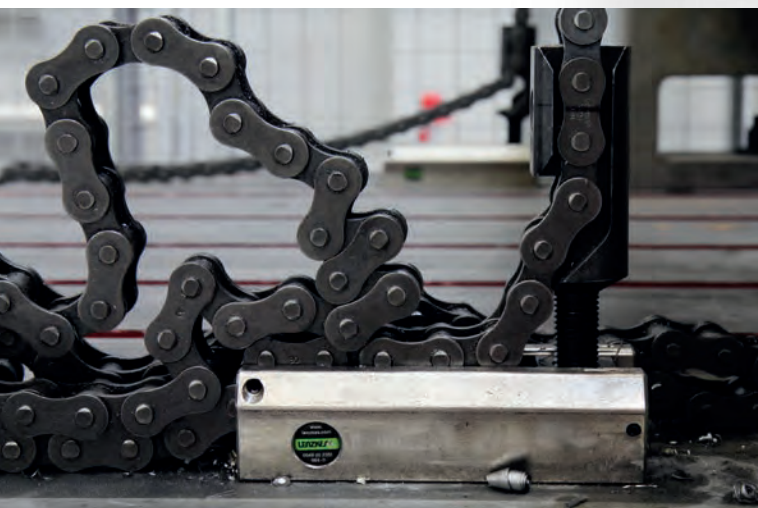


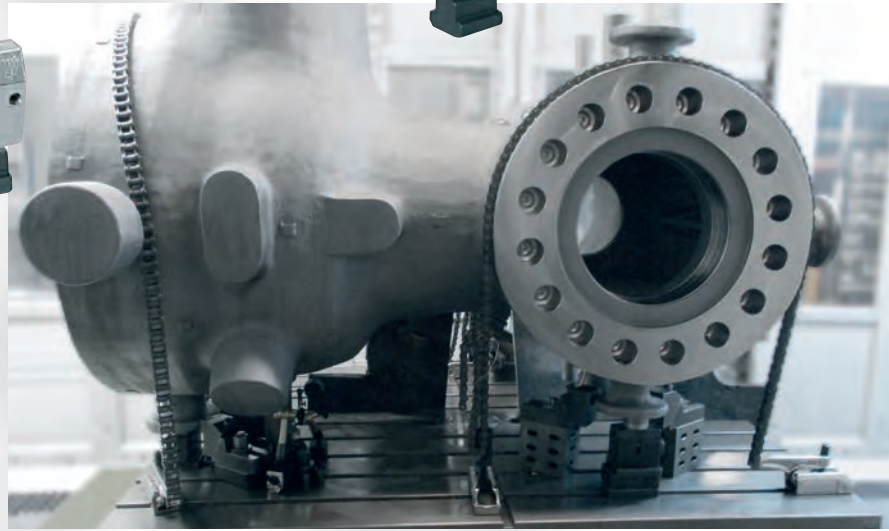
			for T-Slots		for Tapped Holes							Allen Key 	
H	d	a	Part No.		Part No.		B	L	t	s	kN	Part No.	
100	M18	20	058-100-1820		058-100-18		68	180	33	24	90	622-2427	
160			058-160-1820		058-160-18								
200			058-200-1820		058-200-18								
250			058-250-1820		058-250-18								
315			058-315-1820		058-315-18								
400			058-400-1820		058-400-18								
500			058-500-1820		058-500-18								
100	M20	22	058-100-2022		058-100-20		68	180	37	24	110	622-2427	
160			058-160-2022		058-160-20								
200			058-200-2022		058-200-20								
250			058-250-2022		058-250-20								
315			058-315-2022		058-315-20								
400			058-400-2022		058-400-20								
500			058-500-2022		058-500-20								
100	M22	24	058-100-2224		058-100-22		80	210	42	27	140	622-2427	
160			058-160-2224		058-160-22								
200			058-200-2224		058-200-22								
250			058-250-2224		058-250-22								
315			058-315-2224		058-315-22								
400			058-400-2224		058-400-22								
500			058-500-2224		058-500-22								
100	M24	28	058-100-2428		058-100-24		80	210	47	30	160	622-2730	
160			058-160-2428		058-160-24					27			
200			058-200-2428		058-200-24								
250			058-250-2428		058-250-24								
315			058-315-2428		058-315-24								
400			058-400-2428		058-400-24								
500			058-500-2428		058-500-24								

Chain Clamps – for securely clamping large workpieces

Chain clamps have a holding force of up to 60 kN. The chain clamp flexibility allows for large and bulky workpieces to be uniformly secured via low torque setting.

The chain tensioner is very easy to adjust increasing sing productivity by reducing setup times.





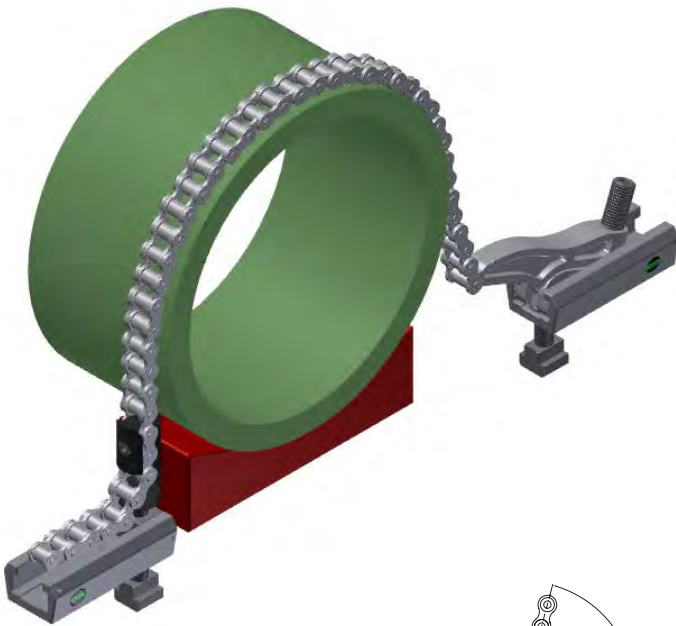
Workpiece protection upon
customer request



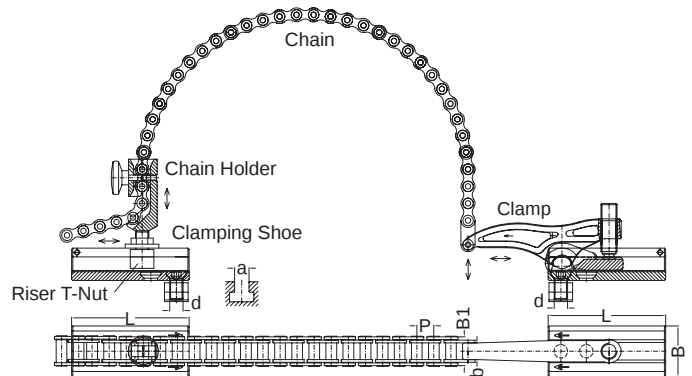
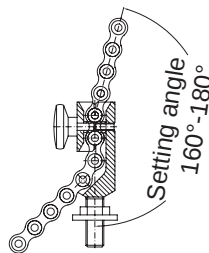
Chain Clamps

Clamping Force: **Up to 60 kN**

199-... Can be used parallel and at any angle on the machine table



Pad and prisms guide strips available upon request



Application Examples: Machining and large fabrications

- for cylindrical work pieces, valve bodies, pump housings, pistons etc.
- the easiest, fastest and safest way to hold round and unconventional work pieces securely in place

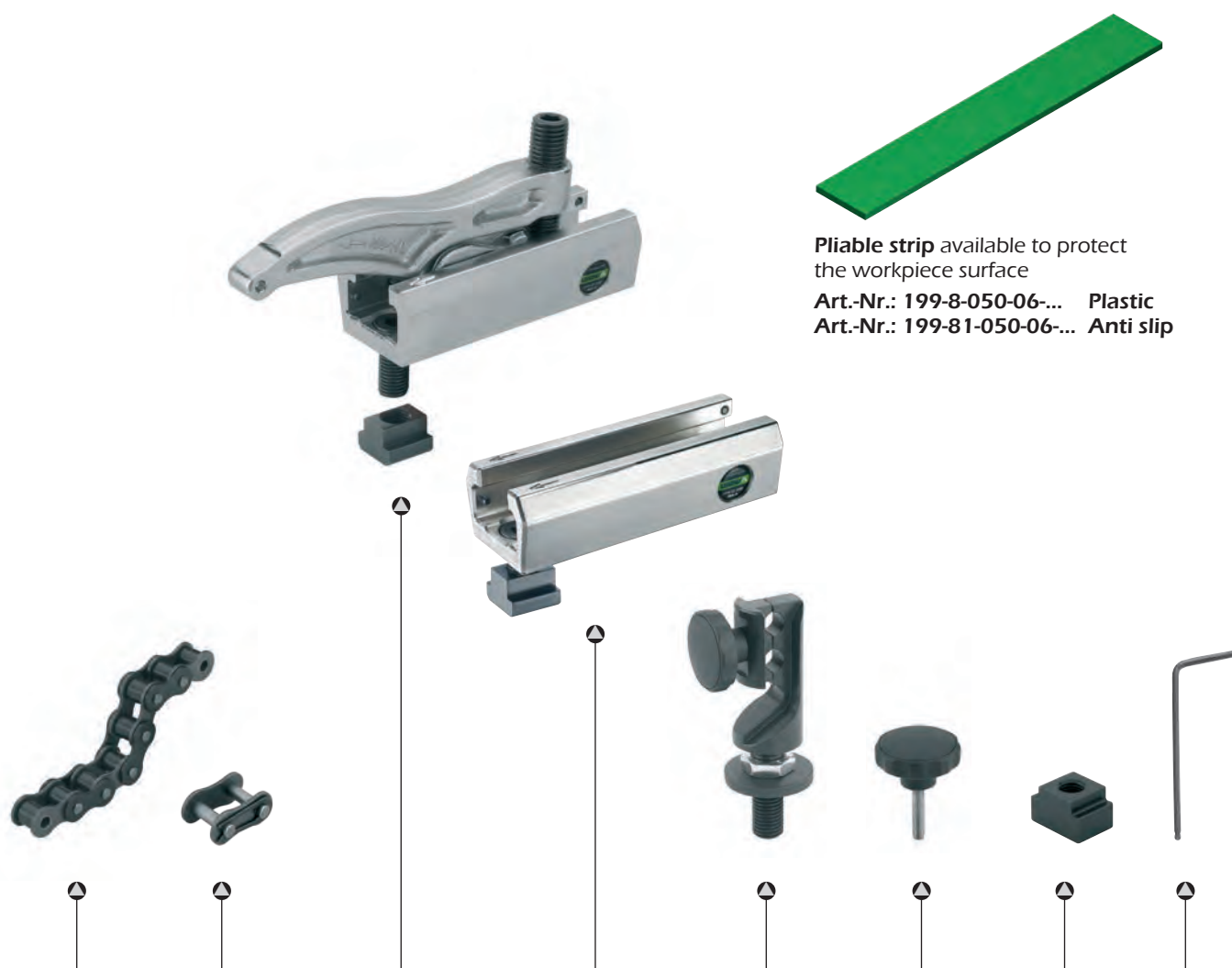
- **Material:** Hardened alloy steel
- **Clamping Arm:** Drop forged
- **High Performance Roller-Chain**

- high clamping force achieved via low torque requirements
- high chain adjustability via inovative chain holder
- easy installation and easy adjustment through stepless adjustable MQ-Clamps
- Suitable for T slots, Tapped holes and fixture use

Chain Length	Chain Pitch	d	a	for T-Slots Excluding Chain		for Tapped Holes Excluding Chain		P	b	B1	L	B	F1	kN
				Part No.		Part No.								
100–5000	3/4"	–	–	199-019-0000-13		–		19,0	11,7	22,7	135	52	25	
		M10	12	199-019-0000-1012		199-019-0000-10								
		M12	14	199-019-0000-1214		199-019-0000-12								
		M12	16	199-019-0000-1216		–								
200–5000	3/4"	–	–	199-019-0000-17		–		19,0	11,7	22,7	155	60	30	
		M14	16	199-019-0000-1416		199-019-0000-14								
		M16	18	199-019-0000-1618		199-019-0000-16								
		M16	20	199-019-0000-1620		–								
300–5000	1"	–	–	199-025-0000-21		–		25,4	17,0	36,0	175	75	50	
		M18	20	199-025-0000-1820		199-025-0000-18								
		M20	22	199-025-0000-2022		199-025-0000-20								
		M20	24	199-025-0000-2024		–								
		M20	28	199-025-0000-2028		–								
500–5000	1 1/4"	–	–	199-031-0000-25		–		31,7	19,6	43,0	205	88	60	
		M22	24	199-031-0000-2224		199-031-0000-22								
		M24	28	199-031-0000-2428		199-031-0000-24								
		M24	36	199-031-0000-2436		–								

Different chain lengths upon request

Chain Clamps (Spare Parts)

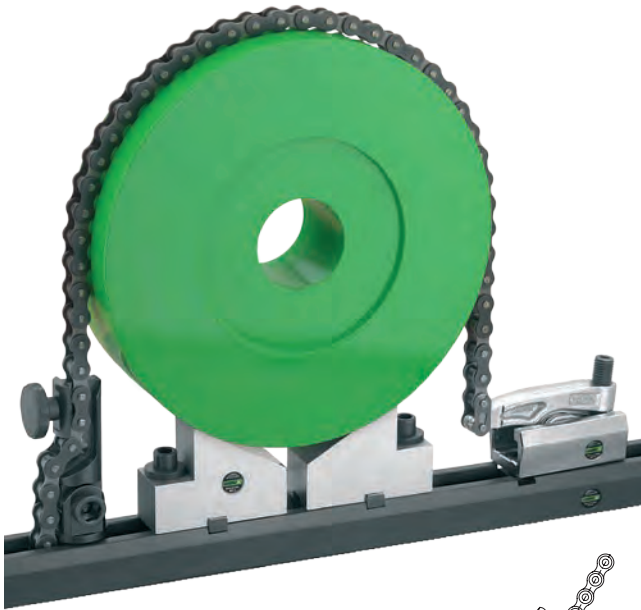


Chain		Chain Lock		Clamp		Clamping shoe		Chain Holder with hand wheel		Hand wheel for chain holder		Riser Nut 9°		Allen Key	
Part No.	€/	Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		P.-No.	
199-019		199-019-132		199-100-067-13		100-2-135-13		199-019-12		199-019-040		509-1224		610-08	
				199-100-067-1012		100-2-135-1012									
				199-100-067-1214		100-2-135-1214									
				199-100-067-1216		100-2-135-1216									
199-019		199-019-132		199-100-078-17		100-2-155-17		199-019-16		199-019-040		509-1628		610-10	
				199-100-078-1416		100-2-155-1416									
				199-100-078-1618		100-2-155-1618									
				199-100-078-1620		100-2-155-1620									
199-025		199-025-21-2		199-100-088-21		100-2-175-21		199-025-20		199-025-050		509-2034		610-12	
				199-100-088-1820		100-2-175-1820									
				199-100-088-2022		100-2-175-2022									
				199-100-088-2024		100-2-175-2024									
				199-100-088-2028		100-2-175-2028									
199-031		199-031-25-2		199-100-102-25		100-2-205-25		199-031-24		199-031-062		509-2442		610-12	
				199-100-102-2224		100-2-205-2224									
				199-100-102-2428		100-2-205-2428									
				199-100-102-2436		100-2-205-2436									

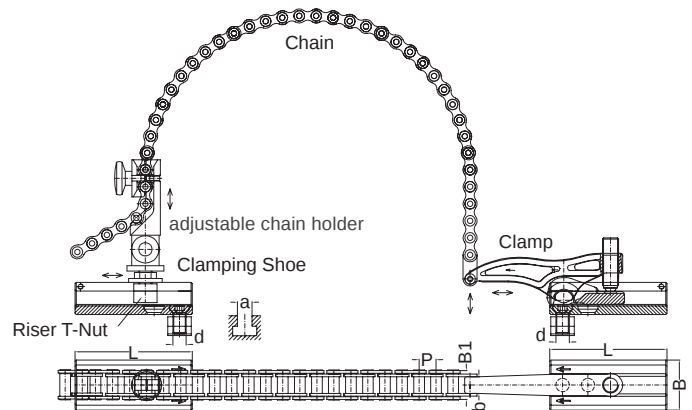
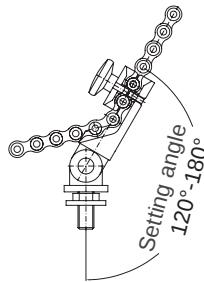
Chain Clamps with adjustable chain holder

Clamping Force: **Up to 60 kN**

199-... Can be used parallel and at any angle on the machine table



Pad and prisms guide strips
available upon request



Application Examples: Machining and large fabrications

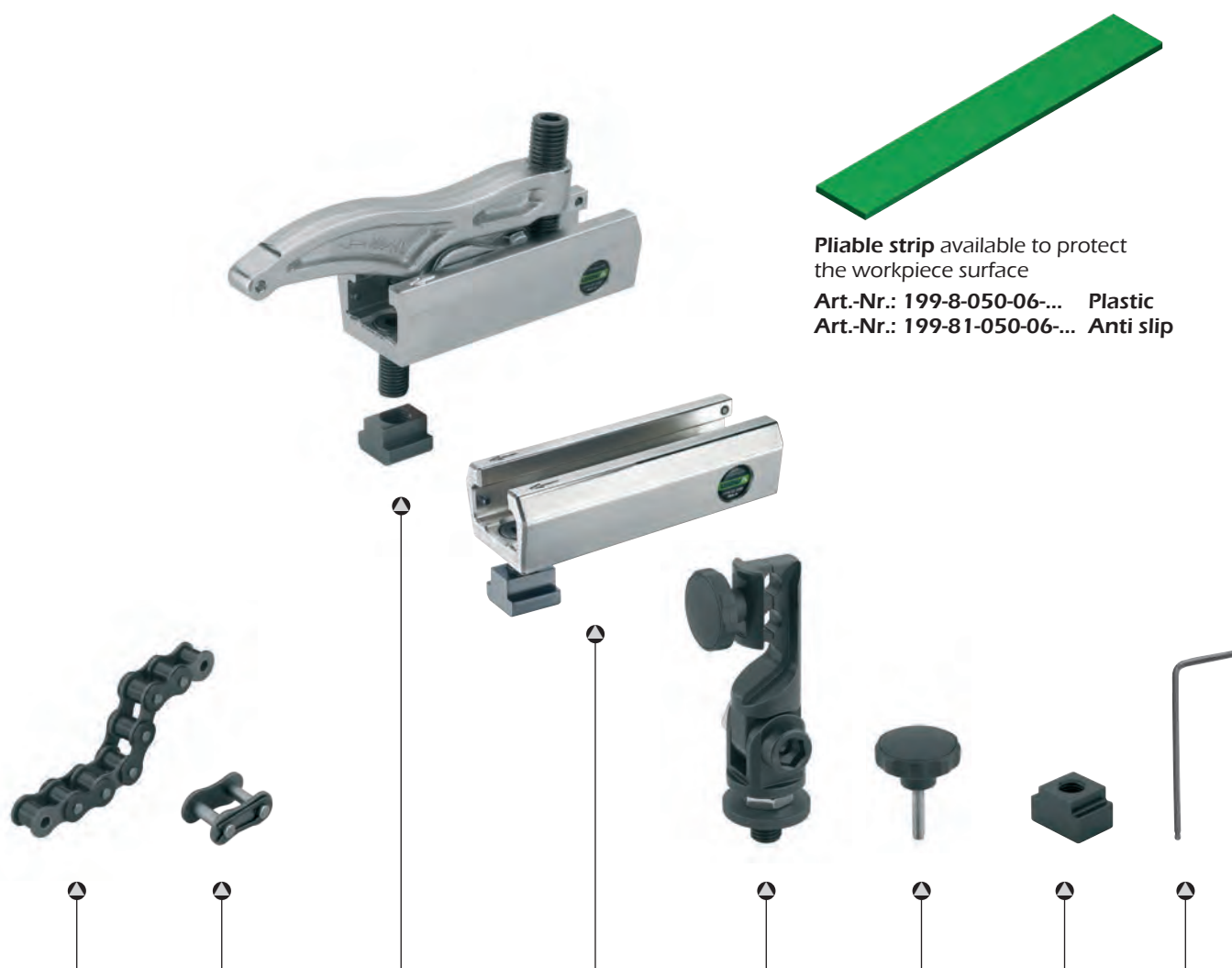
- protected as a registered design in Germany
- for cylindrical work pieces, valve bodies, pump housings, pistons etc.
- the easiest, fastest and safest way to hold round and unconventional work pieces securely in place

- **Material:** Hardened alloy steel
- **Clamping Arm:** Drop forged
- **High Performance Roller-Chain**
- high clamping force achieved via low torque requirements
- high chain adjustability via inovative chain holder
- easy installation and easy adjustment through stepless adjustable MQ-Clamps
- Suitable for T slots, Tapped holes and fixture use
- Increased angle setting adujstability of 120° – 180°

Chain Length	Chain Pitch	d	a	for T-Slots Excluding Chain		for Tapped Holes Excluding Chain		P	b	B1	L	B	F1	kN
				Part No.		Part No.								
100–5000	3/4"	–	–	199-019-0000-2-13		–		19,0	11,7	22,7	135	52	25	
		M10	12	199-019-0000-2-1012		199-019-0000-2-10								
		M12	14	199-019-0000-2-1214		199-019-0000-2-12								
		M12	16	199-019-0000-2-1216		–								
200–5000	3/4"	–	–	199-019-0000-2-17		–		19,0	11,7	22,7	155	60	30	
		M14	16	199-019-0000-2-1416		199-019-0000-2-14								
		M16	18	199-019-0000-2-1618		199-019-0000-2-16								
		M16	20	199-019-0000-2-1620		–								
300–5000	1"	–	–	199-025-0000-2-21		–		25,4	17,0	36,0	175	75	50	
		M18	20	199-025-0000-2-1820		199-025-0000-2-18								
		M20	22	199-025-0000-2-2022		199-025-0000-2-20								
		M20	24	199-025-0000-2-2024		–								
		M20	28	199-025-0000-2-2028		–								
500–5000	1 1/4"	–	–	199-031-0000-2-25		–		31,7	19,6	43,0	205	88	60	
		M22	24	199-031-0000-2-2224		199-031-0000-2-22								
		M24	28	199-031-0000-2-2428		199-031-0000-2-24								
		M24	36	199-031-0000-2-2436		–								

Different chain lengths upon request

Chain Clamps (Spare Parts)



Chain		Chain Lock		Clamp		Clamping shoe		Adjustable chain holder with hand wheel		Hand wheel for chain holder		Riser Nut 9°		Allen Key	
Part No.	€/	Part No.		Part No.		Part No.		Part No.		Part No.		Part No.		P.-No.	
199-019		199-019-132		199-100-067-13		100-2-135-13		199-019-2-12		199-019-040		509-1224		610-08	
				199-100-067-1012		100-2-135-1012									
				199-100-067-1214		100-2-135-1214									
				199-100-067-1216		100-2-135-1216									
199-019		199-019-132		199-100-078-17		100-2-155-17		199-019-2-16		199-019-040		509-1628		610-10	
				199-100-078-1416		100-2-155-1416									
				199-100-078-1618		100-2-155-1618									
				199-100-078-1620		100-2-155-1620									
199-025		199-025-21-2		199-100-088-21		100-2-175-21		199-025-2-20		199-025-050		509-2034		610-12	
				199-100-088-1820		100-2-175-1820									
				199-100-088-2022		100-2-175-2022									
				199-100-088-2024		100-2-175-2024									
				199-100-088-2028		100-2-175-2028									
199-031		199-031-25-2		199-100-102-25		100-2-205-25		199-031-2-24		199-031-062		509-2442		610-12	
				199-100-102-2224		100-2-205-2224									
				199-100-102-2428		100-2-205-2428									
				199-100-102-2436		100-2-205-2436									

Side Clamps NU/FL/SK/SKO

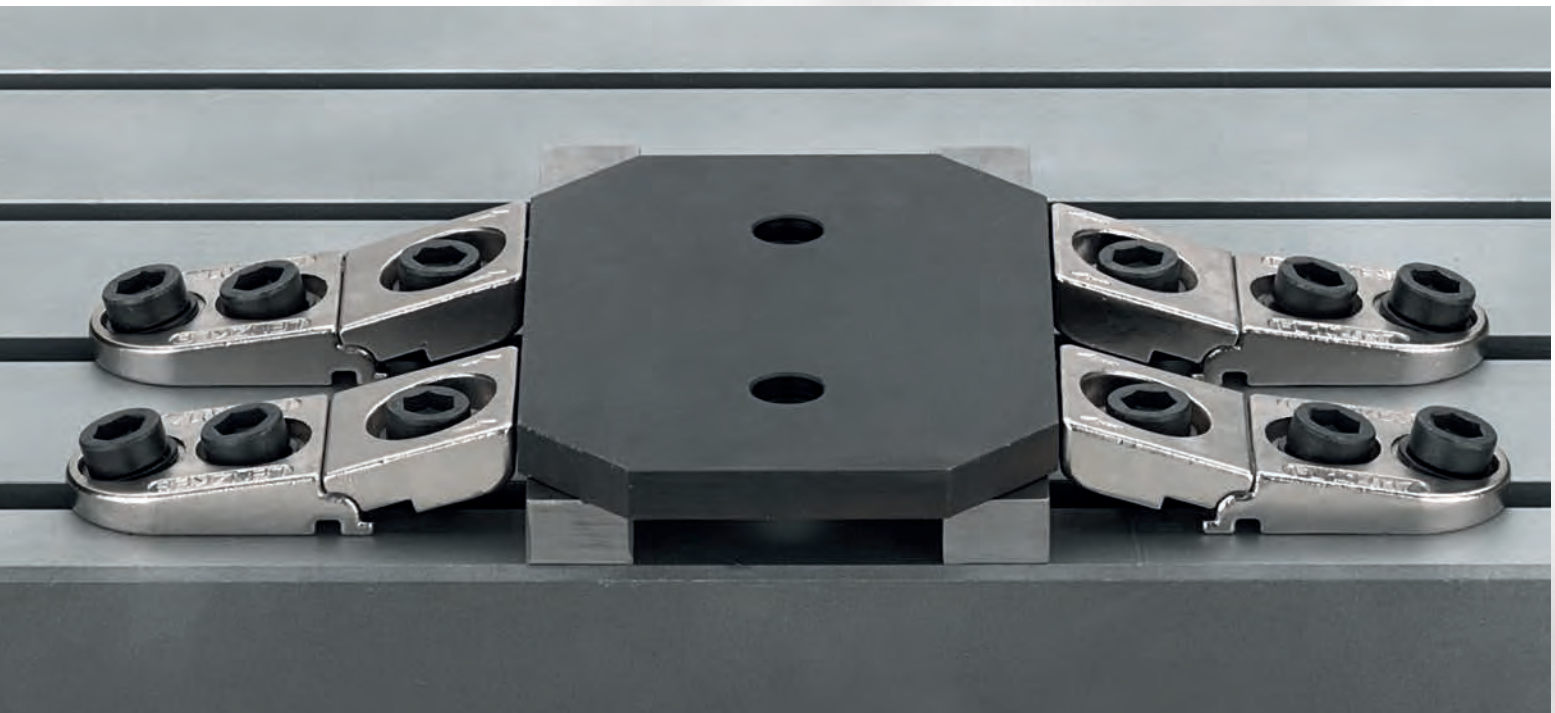
NU has a clamping force up to 18 kN.

These side clamps are perfect for low profile free surface machining. They are generally used on milling machines in metal cutting.

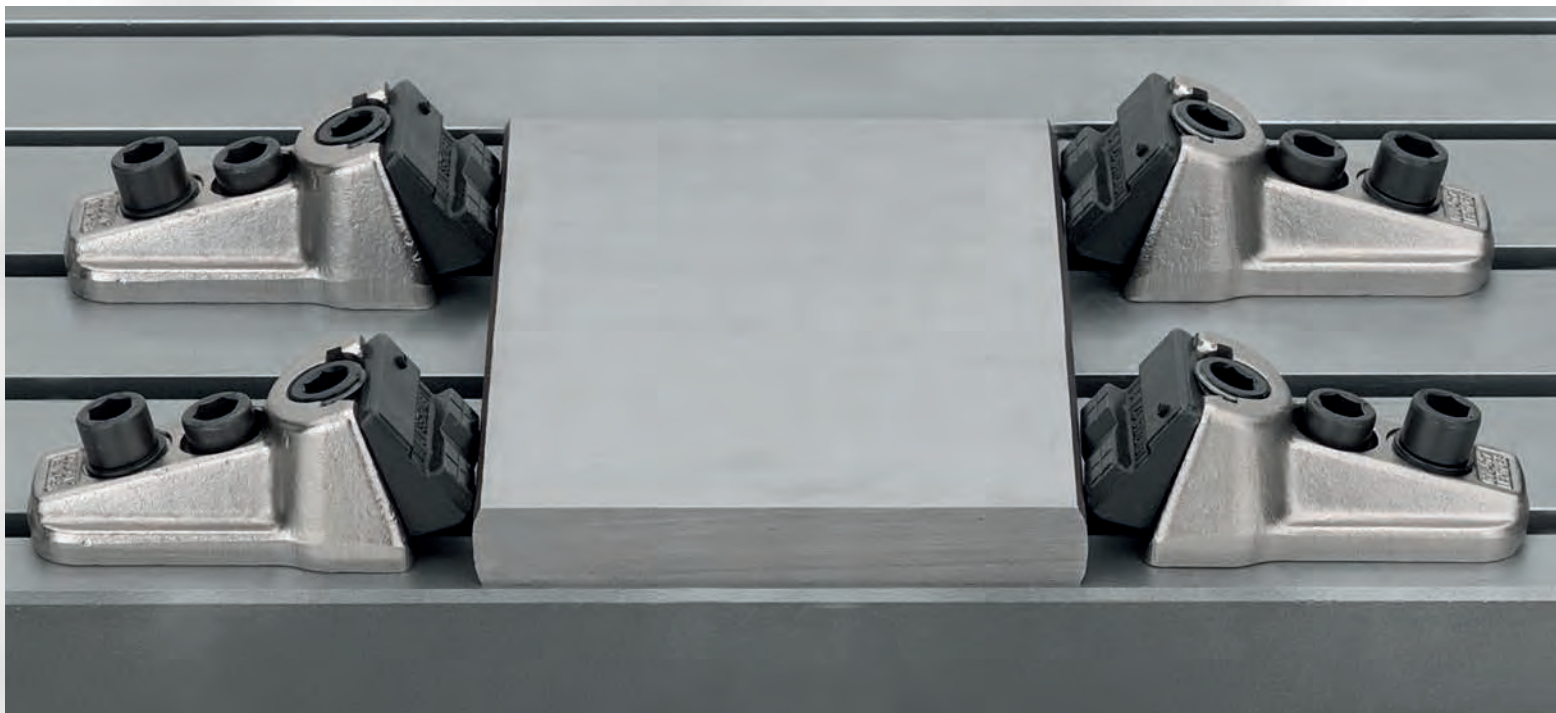
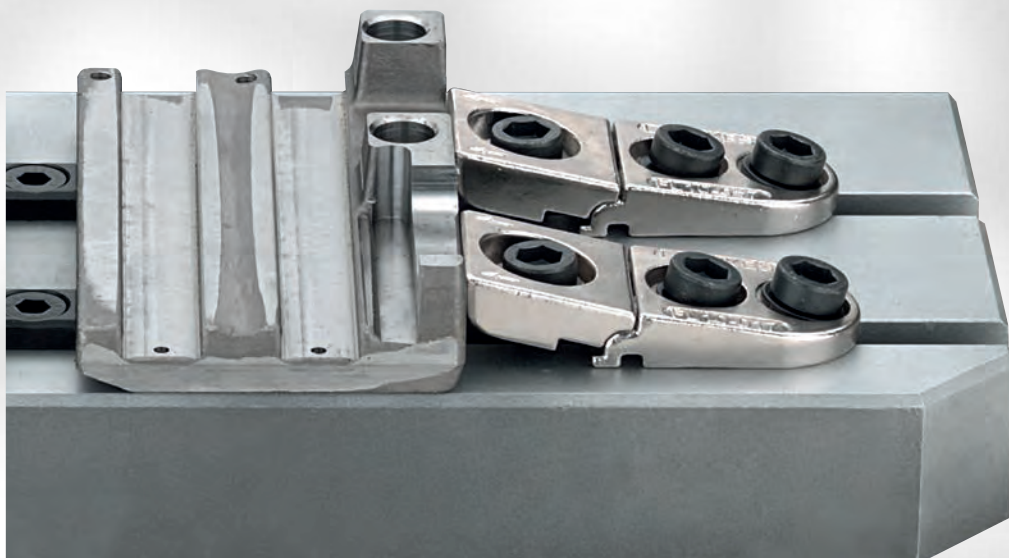


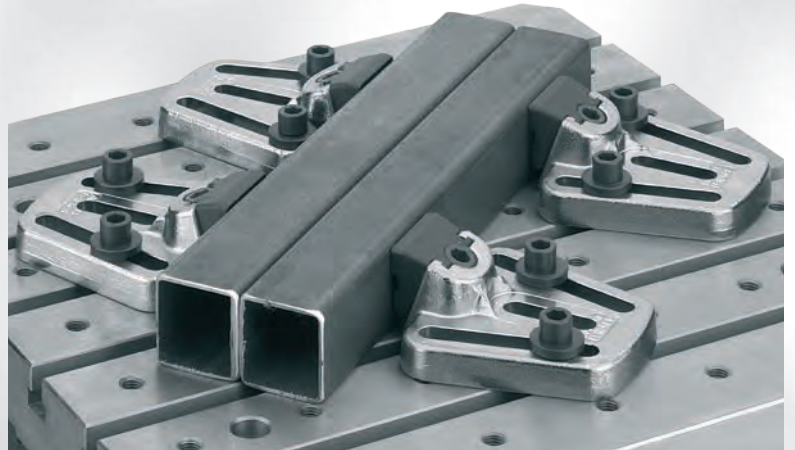
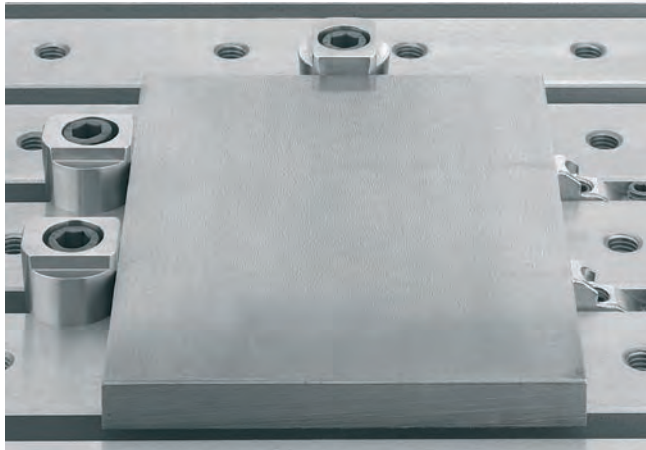
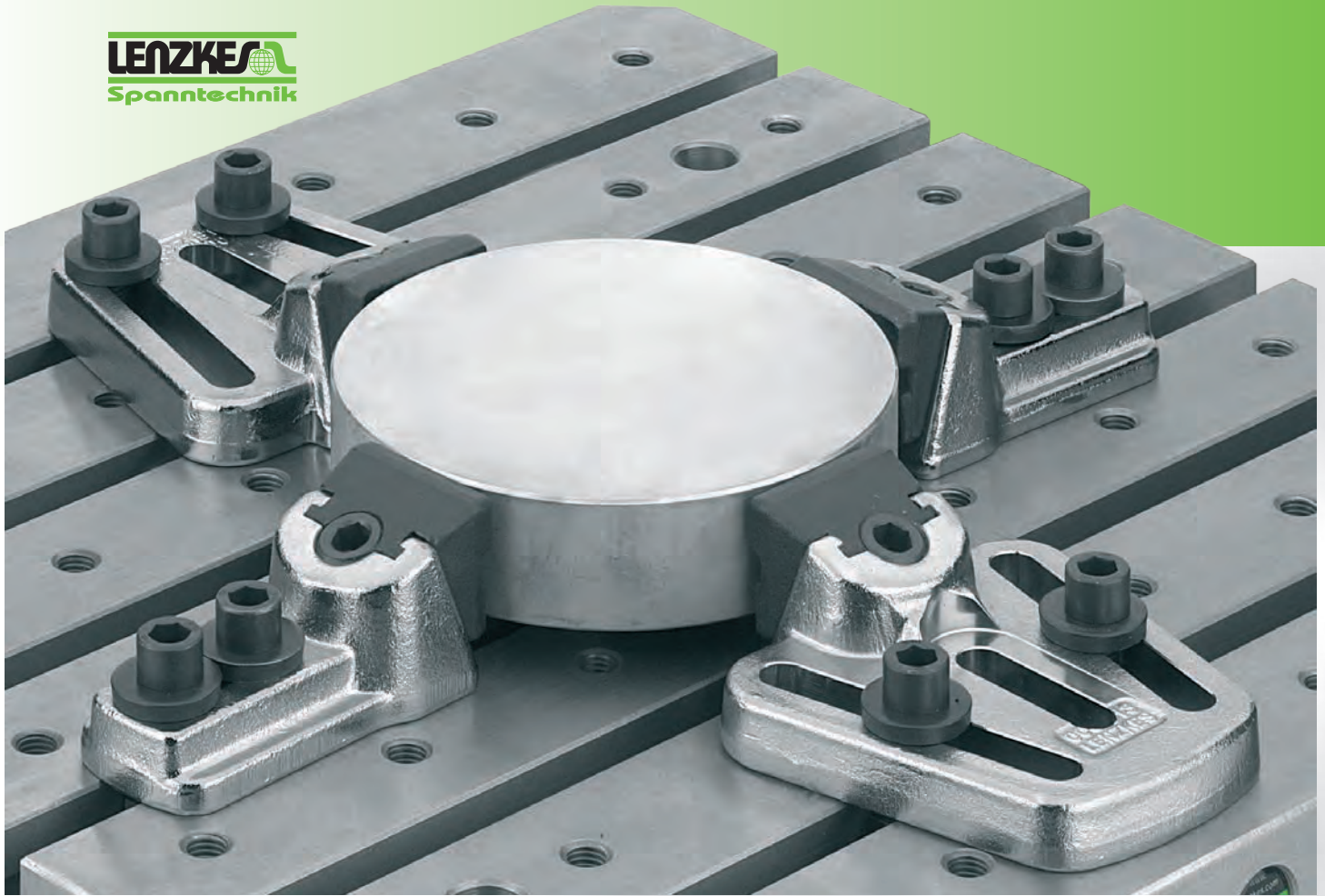
FL has a clamping force up to 40 kN.

These side clamps are perfect for low profile free surface machining. They are generally used on milling machines in metal cutting.



SK/SKO has a clamping force up to 65 kN.
These side clamps are ideal for free surface machining and generate great clamping force. The SKO can be used at an angle to the T-Slot or parallel to the T-Slot. They are generally used on milling machines in metal cutting.





Self Centering Clamp has a clamping force up to 25 kN.
These self centering clamps are stepless adjustable.
Base plate with centered tapped hole.



Application Examples:
Metal cutting

- for free surface machining
- for low profile workpieces

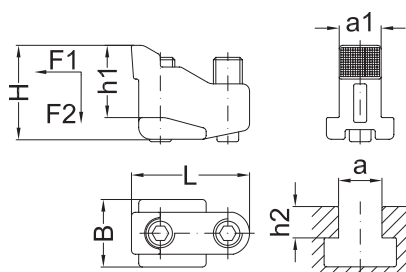
Side Clamps
NU 10 (complete)

■ **Material:** Hardened alloy steel

Clamping Force: Up to 18 kN

Side Clamp with Fixing Screw

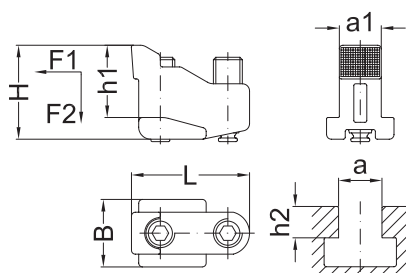
Positioning Stops page 86



									kN	kN	Fixing Screw			Allen Key	
H	a	Part No.		B	L	a1	h1	h2	F1	F2	Part No.		L	Part No.	
25	10	002-0810		15	27	9,7	20	10-14	5,0	2,5	913-06-020		20	612-03	
27	12	002-1012		18	33	11,6	21	12-17	6,0	3,0	913-08-020		20	612-04	
31	14	002-1214		22	40	13,6	24	14-19	7,0	3,5	913-10-025		25	612-05	
35	16	002-1416		25	46	15,5	27	16-22	8,0	4,0	913-12-030		30	610-06	
39	18	002-1618		28	49	17,4	30	18-24	10,0	5,0	913-12-030		30	610-06	
50	22	002-2022		35	63	21,5	37	22-30	16,0	8,0	913-16-040		40	610-08	
62	28	002-2428		44	79	27,4	46	28-36	18,0	9,0	913-20-050		50	610-10	

Side Clamp with ball pressure screw to protect the machine table

Positioning Stops page 86



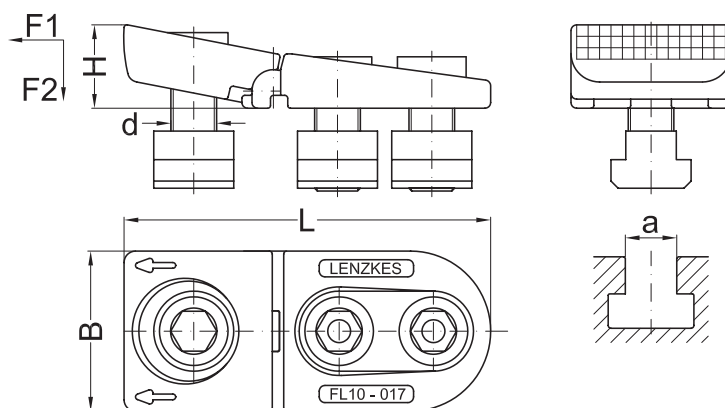
									kN	kN	Ball Pressure Screw			Allen Key	
H	a	Part No.		B	L	a1	h1	h2	F1	F2	Part No.		L	Part No.	
27	12	002-1012-1		18	33	11,6	21	12-17	6,0	3,0	309-08-020		20	612-04	
31	14	002-1214-1		22	40	13,6	24	14-19	7,0	3,5	309-10-025		25	612-05	
35	16	002-1416-1		25	46	15,5	27	16-22	8,0	4,0	309-12-030		30	610-06	
39	18	002-1618-1		28	49	17,4	30	18-24	10,0	5,0	309-12-030		30	610-06	
50	22	002-2022-1		35	63	21,5	37	22-30	16,0	8,0	309-16-040		40	610-08	
62	28	002-2428-1		44	79	27,4	46	28-36	18,0	9,0	309-20-050		50	610-10	

Side Clamps FL10 (complete)

Application Examples: Metal cutting

- for free surface machining
- low profile side clamp
- Alloy steel increases life span of the clamp

Clamping Force: **Up to 40 kN**

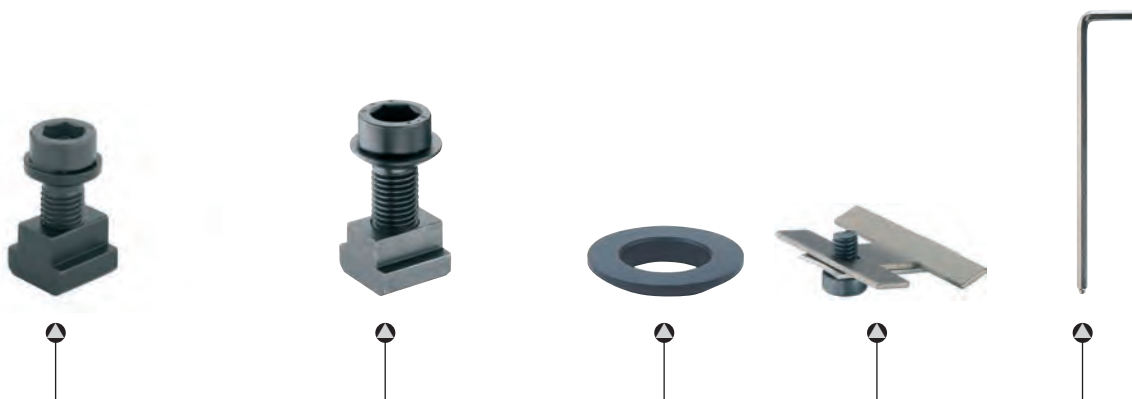
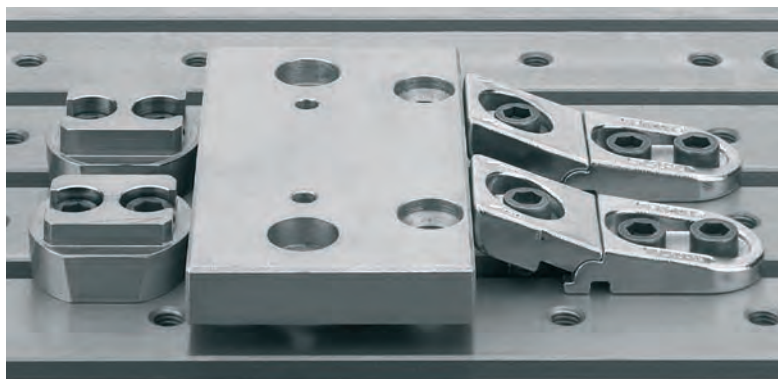


							kN	kN
H	d	a	Part No.		B	L	F1	F2
22-14	–	–	004-09		34	90	10,0	5,0
	M06	8	004-09-0608					
	M08	10	004-09-0810					
	M08	12	004-09-0812					
25-17	–	–	004-13		44	112	20,0	10,0
	M08	10	004-13-0810					
	M10	12	004-13-1012					
	M12	14	004-13-1214					
	M12	16	004-13-1216					
	M12	18	004-13-1218					
30-20	–	–	004-17		56	132	28,0	14,0
	M12	14	004-17-1214					
	M14	16	004-17-1416					
	M16	18	004-17-1618					
	M16	20	004-17-1620					
	M16	22	004-17-1622					
35-24	–	–	004-21		62	155	40,0	20,0
	M16	18	004-21-1618					
	M18	20	004-21-1820					
	M20	22	004-21-2022					
	M20	24	004-21-2024					
	M20	28	004-21-2028					

- Material: Hardened alloy steel
- also available with long form T nut to reduce surface area tension within the T-slot and dissipate clamping force

Side Clamps FL10 (Spare Parts)

Positioning Stops page 86



Fixing Set front with Spherical Seat Washer			Fixing Set rear complete (2 pcs with Washer)				Spherical Seat Washer		Spring with Screw		Allen Key	
Part No.		L	Part No.		L	S	Part No.		Part No.		Part No.	
—		—	—		—	—	—		360-004-09		—	
904-109-0608		22	904-409-0608		20	5	319-108				612-05	
904-109-0810		25	904-409-0810		22	6					611-06	
904-109-0812		25	904-409-0812		25							
—		—	—		—	—	—		360-004-13		—	
904-113-0810		25	904-413-0810		25	6	319-004-12				611-06	
904-113-1012		25	904-413-1012		25	8					611-08	
904-113-1214		35	904-413-1214		30	10					611-10	
904-113-1216		35	904-413-1216		35							
904-113-1218		40	904-413-1218		40							
—		—	—		—	—	—		360-004-17		—	
904-117-1214		30	904-417-1214		30	10	319-004-16				611-10	
904-117-1416		35	904-417-1416		35	12					611-12	
904-117-1618		40	904-417-1618		40	14					611-14	
904-117-1620		40	904-417-1620		40							
904-117-1622		45	904-417-1622		45							
—		—	—		—	—	—		360-004-21		—	
904-121-1618		40	904-421-1618		40	14	319-004-20				611-14	
904-121-1820		45	904-421-1820		45							
904-121-2022		55	904-421-2022		50	17					611-17	
904-121-2024		55	904-421-2024		55							
904-121-2028		65	904-421-2028		60							

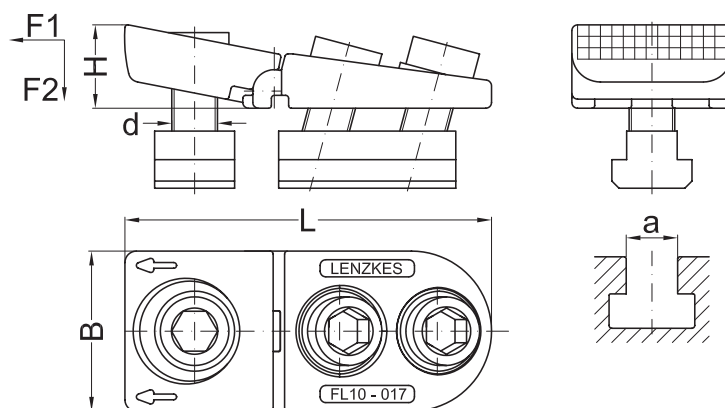


Side Clamps FL10 (complete)

Application Examples: Metal cutting

- for free surface machining
- low profile side clamp
- Alloy steel increases life span of the clamp

Clamping Force: **Up to 40 kN**



							kN	kN
H	d	a	Part No.		B	L	F1	F2
22-14	–	–	004-09		34	90	10,0	5,0
	M06	8	004-09-0608-2					
	M08	10	004-09-0810-2					
	M08	12	004-09-0812-2					
25-17	–	–	004-013		44	112	20,0	10,0
	M08	10	004-013-0810					
	M10	12	004-013-1012					
	M12	14	004-013-1214					
	M12	16	004-013-1216					
	M12	18	004-013-1218					
30-20	–	–	004-017		56	132	28,0	14,0
	M12	14	004-017-1214					
	M14	16	004-017-1416					
	M16	18	004-017-1618					
	M16	20	004-017-1620					
	M16	22	004-017-1622					
35-24	–	–	004-021		62	155	40,0	20,0
	M16	18	004-021-1618					
	M18	20	004-021-1820					
	M20	22	004-021-2022					
	M20	24	004-021-2024					
	M20	28	004-021-2028					

- Material: Hardened alloy steel
- Set-up time is considerably reduced due to long T-Nut
- new design generates increased clamping force

Side Clamps FL10 (Spare Parts)

Positioning Stops page 86



Fixing Set front with Spherical Seat Washer			Fixing Set rear complete				Spherical Seat Washer		Spring with Screw		Allen Key	
Part No.		L	Part No.		L	S	Part No.		Part No.		Part No.	
–		–	–		–	–	–		360-004-09		–	
904-109-0608		22	904-309-0608		20	5	319-108				612-05	
904-109-0810		25	904-309-0810		22	6					611-06	
904-109-0812		25	904-309-0812		25							
–		–	–		–	–	–		360-004-13		–	
904-113-0810		25	904-213-0810		25	6	319-004-12				611-06	
904-113-1012		25	904-213-1012		25	8					611-08	
904-113-1214		35	904-213-1214		30	10					611-10	
904-113-1216		35	904-213-1216		35							
904-113-1218		40	904-213-1218		40							
–		–	–		–	–	–		360-004-17		–	
904-117-1214		30	904-217-1214		30	10	319-004-16				611-10	
904-117-1416		35	904-217-1416		35	12					611-12	
904-117-1618		40	904-217-1618		35	14					611-14	
904-117-1620		40	904-217-1620		40							
904-117-1622		45	904-217-1622		45							
–		–	–		–	–	–		360-004-21		–	
904-121-1618		40	904-221-1618		40	14	319-004-20				611-14	
904-121-1820		45	904-221-1820		45							
904-121-2022		55	904-221-2022		50	17					611-17	
904-121-2024		55	904-221-2024		55							
904-121-2028		60	904-221-2028		60							



Side Clamps inclined fixing SK 10 (complete)

Application Examples: Metal cutting

- for free surface machining
can be used parallel to the T-Slot
- drop forged alloy steel increases
life span of the clamp

Clamping Force: **Up to 65 kN**

with standard face
006-...-1



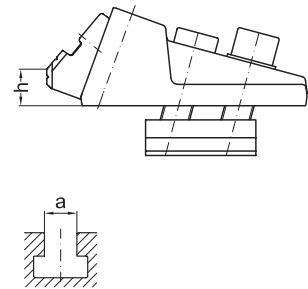
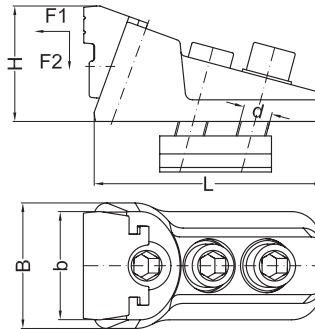
with reversible face
006-...-2



with reversible face
006-...-2



Jaw with fixing holes
for replacement faces
006-...-3



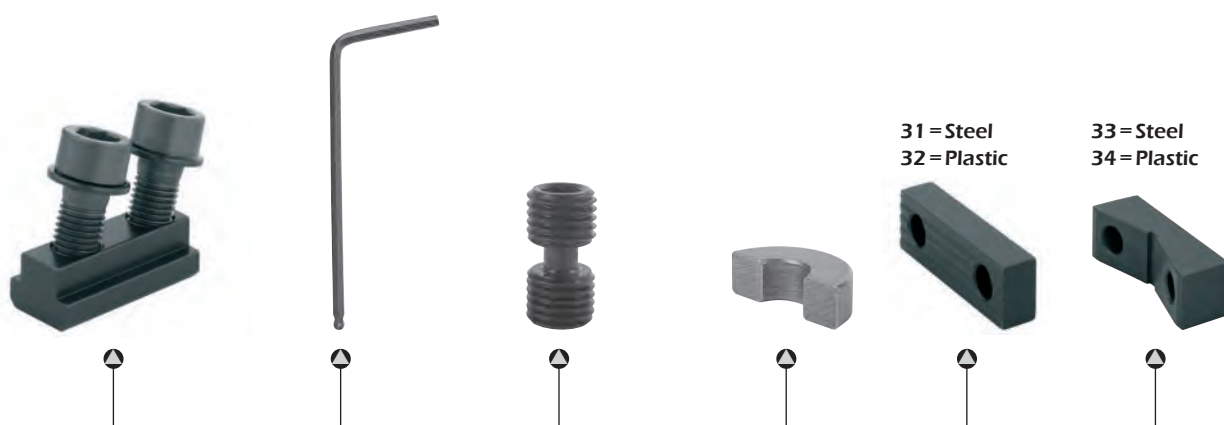
Replacement faces page 79

				with standard face		with reversible face		with jaw with fixing hole					kN	kN
H	h	d	a	Part No.		Part No.		Part No.		b	B	L	F1	F2
40-50	17-27	-	-	006-013-1		006-013-2		006-013-3		50	58	100	20	10
		M08	10	006-013-1-0810		006-013-2-0810		006-013-3-0810						
		M10	12	006-013-1-1012		006-013-2-1012		006-013-3-1012						
		M12	14	006-013-1-1214		006-013-2-1214		006-013-3-1214						
		M12	16	006-013-1-1216		006-013-2-1216		006-013-3-1216						
		M12	18	006-013-1-1218		006-013-2-1218		006-013-3-1218						
51-64	20-33	-	-	006-017-1		006-017-2		006-017-3		60	70	127	25	12
		M12	14	006-017-1-1214		006-017-2-1214		006-017-3-1214						
		M14	16	006-017-1-1416		006-017-2-1416		006-017-3-1416						
		M16	18	006-017-1-1618		006-017-2-1618		006-017-3-1618						
		M16	20	006-017-1-1620		006-017-2-1620		006-017-3-1620						
		M16	22	006-017-1-1622		006-017-2-1622		006-017-3-1622						
76-93	28-45	-	-	006-021-1		006-021-2		006-021-3		80	95	167	40	20
		M16	18	006-021-1-1618		006-021-2-1618		006-021-3-1618						
		M18	20	006-021-1-1820		006-021-2-1820		006-021-3-1820						
		M20	22	006-021-1-2022		006-021-2-2022		006-021-3-2022						
		M20	24	006-021-1-2024		006-021-2-2024		006-021-3-2024						
		M20	28	006-021-1-2028		006-021-2-2028		006-021-3-2028						
110-128	37-55	-	-	006-025-1		006-025-2		006-025-3		92	113	210	65	32
		M20	22	006-025-1-2022		006-025-2-2022		006-025-3-2022						
		M22	24	006-025-1-2224		006-025-2-2224		006-025-3-2224						
		M24	28	006-025-1-2428		006-025-2-2428		006-025-3-2428						
		M24	36	006-025-1-2436		006-025-2-2436		006-025-3-2436						

- Material: Drop forged alloy steel
- Set-up time is considerably reduced due to long T-Nut
- new design generates increased clamping force

Side Clamps inclined fixing SK10 (Spare Parts)

Positioning Stops page 86



Fixing Set long			Allen Key 	Driving Ring			Retaining Ring	Replacement faces Steel/Plastic		Prism Replacement faces Steel/Plastic			
Part No.		L	Part No.		Part No.		s	Part No.		Part No.		Part No.	
–		–	610-10		009-013-1-12		10	009-13-2		009-13-31		009-13-33	
907-213-0810		35	610-06		009-013-1-08		6			009-13-32		009-13-34	
907-213-1012		35	610-08		009-013-1-10		8						
907-213-1214		40	610-10		009-013-1-12		10						
907-213-1216		45											
907-213-1218		45											
–		–	610-14		009-017-1-14		14	009-17-2		009-17-31		009-17-33	
907-217-1214		45	610-10		009-017-1-12		10			009-17-32		009-17-34	
907-217-1416		50	610-12		009-017-1-14		12						
907-217-1618		50	610-14		009-017-1-16		14						
907-217-1620		55											
907-217-1622		60											
–		–	610-17		009-021-1-20		17	009-21-2		009-21-31		009-21-33	
907-221-1618		60	610-14		009-021-1-18		14			009-21-32		009-21-34	
907-221-1820		60											
907-221-2022		65	610-17		009-021-1-20		17						
907-221-2024		70											
907-221-2028		75											
–		–	612-19		009-025-1-24		19	009-25-2		009-25-31		009-25-33	
907-225-2022		80	610-17		009-025-1-22		17			009-25-32		009-25-34	
907-225-2224		85											
907-225-2428		90	612-19		009-025-1-24		19						
907-225-2436		100											

Side Clamps with elongated slot SK10 (complete)

Application Examples: Metal cutting

- for free surface machining,
can be used parallel to the T-Slot
- drop forged alloy steel increases
life span of the clamp

Clamping Force: **Up to 40 kN**

with standard face
006-...-1-5



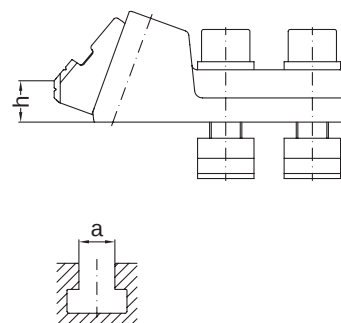
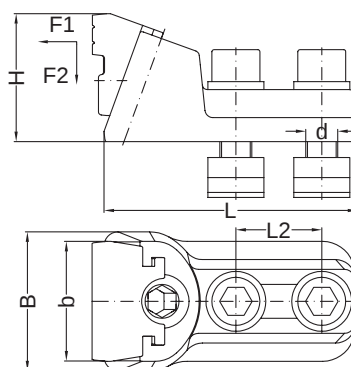
with reversible face
006-...-2-5



with reversible face
006-...-2-5



Jaw with fixing holes
for replacement faces
006-...-3-5



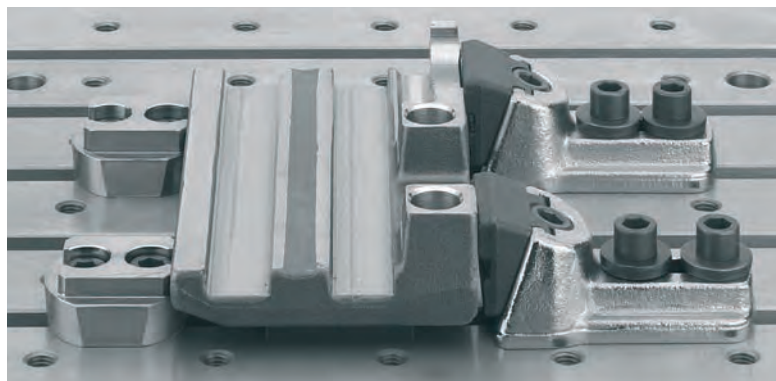
Replacement faces page 79

				with standard face	with reversible face	with jaw with fixing hole					kN	kN
H	h	d	a	Part No.	Part No.	Part No.	b	B	L	L2	F1	F2
40-50	17-27	-	-	006-13-1-5	006-13-2-5	006-13-3-5	50	58	108	35	20	10
		M08	10	006-13-1-5-0810	006-13-2-5-0810	006-13-3-5-0810						
		M10	12	006-13-1-5-1012	006-13-2-5-1012	006-13-3-5-1012						
		M12	14	006-13-1-5-1214	006-13-2-5-1214	006-13-3-5-1214						
		M12	16	006-13-1-5-1216	006-13-2-5-1216	006-13-3-5-1216						
		M12	18	006-13-1-5-1218	006-13-2-5-1218	006-13-3-5-1218						
51-64	20-33	-	-	006-17-1-5	006-17-2-5	006-17-3-5	60	70	132	47	25	12
		M12	14	006-17-1-5-1214	006-17-2-5-1214	006-17-3-5-1214						
		M14	16	006-17-1-5-1416	006-17-2-5-1416	006-17-3-5-1416						
		M16	18	006-17-1-5-1618	006-17-2-5-1618	006-17-3-5-1618						
		M16	20	006-17-1-5-1620	006-17-2-5-1620	006-17-3-5-1620						
		M16	22	006-17-1-5-1622	006-17-2-5-1622	006-17-3-5-1622						
76-93	28-45	-	-	006-21-1-5	006-21-2-5	006-21-3-5	80	95	178	65	40	20
		M16	18	006-21-1-5-1618	006-21-2-5-1618	006-21-3-5-1618						
		M18	20	006-21-1-5-1820	006-21-2-5-1820	006-21-3-5-1820						
		M20	22	006-21-1-5-2022	006-21-2-5-2022	006-21-3-5-2022						
		M20	24	006-21-1-5-2024	006-21-2-5-2024	006-21-3-5-2024						
		M20	28	006-21-1-5-2028	006-21-2-5-2028	006-21-3-5-2028						
110-128	37-55	-	-	006-25-1-5	006-25-2-5	006-25-3-5	92	113	235	75	65	32
		M20	22	006-25-1-5-2022	006-25-2-5-2022	006-25-3-5-2022						
		M22	24	006-25-1-5-2224	006-25-2-5-2224	006-25-3-5-2224						
		M24	28	006-25-1-5-2428	006-25-2-5-2428	006-25-3-5-2428						
		M24	36	006-25-1-5-2436	006-25-2-5-2436	006-25-3-5-2436						

- Material: Drop forged alloy steel
- new design generates increased clamping force
- also available with long form T nut to reduce surface area tension within the T-slot and dissipate clamping force

Side Clamps with elongated slot SK10 (Spare Parts)

Positioning Stops page 86



Fixing Set			Allen Key	Fixing Set with T-Slot Bolt			Allen Key	Driving Ring			Retaining Ring
Part No.		L	Part No.		Part No.		L	Part No.	Part No.	s	Part No.
–		–	610-10		–		–	–	009-013-1-12	10	009-13-2
907-13-0810-040		40	610-06		906-13-1010-063		63	620-16	009-013-1-08	6	
907-13-1012-040		40	610-08		906-13-1212-063		63	620-18	009-013-1-10	8	
907-13-1214-045		45	610-10		906-13-1214-063		63		009-013-1-12	10	
907-13-1216-045		45			906-13-1216-080		80				
907-13-1218-050		50			906-13-1218-080		80				
–		–	610-14		–		–	–	009-017-1-16	14	009-17-2
907-17-1214-050		50	610-10		906-17-1214-063		63	620-18	009-017-1-12	10	
907-17-1416-055		55	610-12		906-17-1416-080		80	620-22	009-017-1-14	12	
907-17-1618-060		60	610-14		906-17-1618-080		80	620-24	009-017-1-16	14	
907-17-1620-060		60			906-17-1620-100		100				
907-17-1622-065		65			906-17-1622-100		100				
–		–	610-17		–		–	–	009-021-1-20	17	009-21-2
907-21-1618-065		65	610-14		906-21-1618-100		100	620-24	009-021-1-18	14	
907-21-1820-065		65			906-21-1820-100		100	620-27			
907-21-2022-070		70	610-17		906-21-2022-100		100	620-30	009-021-1-20	17	
907-21-2024-075		75			906-21-2024-100		100				
907-21-2028-080		80			906-21-2028-125		125				
–		–	610-17		–		–	–	009-025-1-24	19	009-25-2
907-25-2022-100		100	610-17		906-25-2022-125		125	610-17	009-025-1-22	17	
907-25-2224-100		100			906-25-2224-125		125				
907-25-2428-110		110	612-19		906-25-2428-140		140	612-19	009-025-1-24	19	
907-25-2436-120		120			906-25-2436-160		160				

Side Clamps inclined fixing SKQ 10 (complete)

Application Examples: Metal cutting

- for free surface machining
- can be used parallel and at any angle on the machine table
- drop forged alloy steel increases life span of the clamp

Clamping Force: **Up to 65 kN**

with standard face
008-...-1



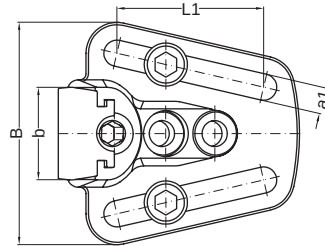
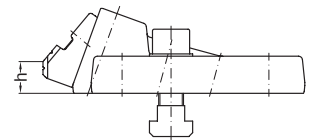
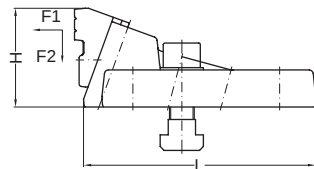
with reversible face
008-...-2



with reversible face
008-...-2



Jaw with fixing holes
for replacement faces
008-...-3



Replacement faces page 79

				with standard face		with reversible face		with jaw with fixing hole							kN	kN
H	h	d	a	Part No.		Part No.		Part No.		a1	b	B	L	L1	F1	F2
40-50	17-27	-	-	008-013-1		008-013-2		008-013-3		13	50	126	132	82	20	10
		M08	10	008-013-1-0810		008-013-2-0810		008-013-3-0810								
		M10	12	008-013-1-1012		008-013-2-1012		008-013-3-1012								
		M12	14	008-013-1-1214		008-013-2-1214		008-013-3-1214								
		M12	16	008-013-1-1216		008-013-2-1216		008-013-3-1216								
		M12	18	008-013-1-1218		008-013-2-1218		008-013-3-1218								
51-64	20-33	-	-	008-017-1		008-017-2		008-017-3		17	60	144	150	95	25	12
		M12	14	008-017-1-1214		008-017-2-1214		008-017-3-1214								
		M14	16	008-017-1-1416		008-017-2-1416		008-017-3-1416								
		M16	18	008-017-1-1618		008-017-2-1618		008-017-3-1618								
		M16	20	008-017-1-1620		008-017-2-1620		008-017-3-1620								
		M16	22	008-017-1-1622		008-017-2-1622		008-017-3-1622								
76-93	28-45	-	-	008-021-1		008-021-2		008-021-3		21	80	182	194	120	40	20
		M16	18	008-021-1-1618		008-021-2-1618		008-021-3-1618								
		M18	20	008-021-1-1820		008-021-2-1820		008-021-3-1820								
		M20	22	008-021-1-2022		008-021-2-2022		008-021-3-2022								
		M20	24	008-021-1-2024		008-021-2-2024		008-021-3-2024								
		M20	28	008-021-1-2028		008-021-2-2028		008-021-3-2028								
110-128	37-55	-	-	008-025-1		008-025-2		008-025-3		25	92	248	257	160	65	32
		M20	22	008-025-1-2022		008-025-2-2022		008-025-3-2022								
		M22	24	008-025-1-2224		008-025-2-2224		008-025-3-2224								
		M24	28	008-025-1-2428		008-025-2-2428		008-025-3-2428								
		M24	36	008-025-1-2436		008-025-2-2436		008-025-3-2436								

- Material: Drop forged alloy steel
- the unique design of the clamp allows workpieces to be clamped at any angle to the T-Slot
- new design generates increased clamping force

Side Clamps inclined fixing SKO 10 (Spare Parts)

Positioning Stops page 86



Fixing Set for elongated slots			Fixing Set long			Allen Key 		Driving Ring			Retaining Ring	
Part No.		L	Part No.		L	Part No.		Part No.		s	Part No.	
–		–	–		–	610-10		009-013-1-12		10	009-13-2	
907-113-0810		35	907-213-0810		35	610-06		009-013-1-08		6		
907-113-1012		40	907-213-1012		35	610-08		009-013-1-10		8		
907-113-1214		45	907-213-1214		40	610-10		009-013-1-12		10		
907-113-1216		45	907-213-1216		45							
907-113-1218		50	907-213-1218		45							
–		–	–		–	610-14		009-017-1-16		14	009-17-2	
907-117-1214		50	907-217-1214		45	610-10		009-017-1-12		10		
907-117-1416		55	907-217-1416		50	610-12		009-017-1-14		12		
907-117-1618		60	907-217-1618		50	610-14		009-017-1-16		14		
907-117-1620		60	907-217-1620		55							
907-117-1622		65	907-217-1622		60							
–		–	–		–	610-17		009-021-1-20		17	009-21-2	
907-121-1618		65	907-221-1618		60	610-14		009-021-1-18		14		
907-121-1820		65	907-221-1820		60							
907-121-2022		70	907-221-2022		65	610-17		009-021-1-20		17		
907-121-2024		75	907-221-2024		70							
907-121-2028		80	907-221-2028		75							
–		–	–		–	612-19		009-025-1-24		19	009-25-2	
907-125-2022		85	907-225-2022		80	610-17		009-025-1-22		17		
907-125-2224		90	907-225-2224		85							
907-125-2428		95	907-225-2428		90	612-19		009-025-1-24		19		
907-125-2436		110	907-225-2436		100							

Side Clamps with elongated slot SKQ 10 (complete)

Application Examples: Metal cutting

- for free surface machining
- can be used parallel and at any angle on the machine table
- drop forged alloy steel increases life span of the clamp

Clamping Force: **Up to 65 kN**

with standard face
008-...-1-5



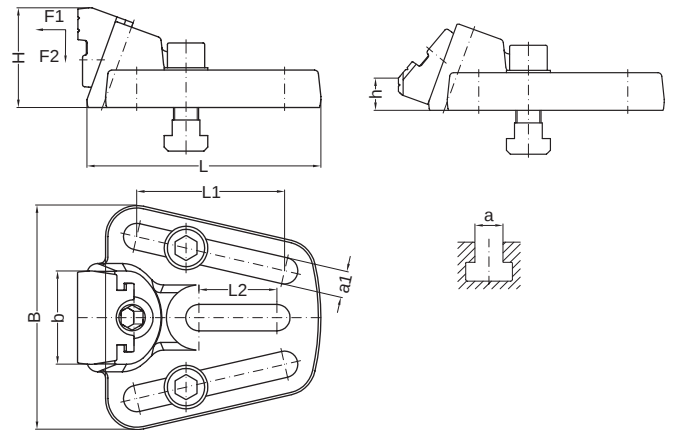
with reversible face
008-...-2-5



with reversible face
008-...-2-5



Jaw with fixing holes
for replacement faces
008-...-3-5



Replacement faces page 79

				with standard face		with reversible face		with jaw with fixing hole							kN	kN
H	h	d	a	Part No.		Part No.		Part No.		b	B	L	L1	L2	F1	F2
40-50	17-27	-	-	008-13-1-5		008-13-2-5		008-13-3-5		50	126	132	82	40	20	10
		M08	10	008-13-1-5-0810		008-13-2-5-0810		008-13-3-5-0810								
		M10	12	008-13-1-5-1012		008-13-2-5-1012		008-13-3-5-1012								
		M12	14	008-13-1-5-1214		008-13-2-5-1214		008-13-3-5-1214								
		M12	16	008-13-1-5-1216		008-13-2-5-1216		008-13-3-5-1216								
		M12	18	008-13-1-5-1218		008-13-2-5-1218		008-13-3-5-1218								
51-64	20-33	-	-	008-17-1-5		008-17-2-5		008-17-3-5		60	144	150	95	50	25	12
		M12	14	008-17-1-5-1214		008-17-2-5-1214		008-17-3-5-1214								
		M14	16	008-17-1-5-1416		008-17-2-5-1416		008-17-3-5-1416								
		M16	18	008-17-1-5-1618		008-17-2-5-1618		008-17-3-5-1618								
		M16	20	008-17-1-5-1620		008-17-2-5-1620		008-17-3-5-1620								
		M16	22	008-17-1-5-1622		008-17-2-5-1622		008-17-3-5-1622								
76-93	28-45	-	-	008-21-1-5		008-21-2-5		008-21-3-5		80	182	194	120	60	40	20
		M16	18	008-21-1-5-1618		008-21-2-5-1618		008-21-3-5-1618								
		M18	20	008-21-1-5-1820		008-21-2-5-1820		008-21-3-5-1820								
		M20	22	008-21-1-5-2022		008-21-2-5-2022		008-21-3-5-2022								
		M20	24	008-21-1-5-2024		008-21-2-5-2024		008-21-3-5-2024								
		M20	28	008-21-1-5-2028		008-21-2-5-2028		008-21-3-5-2028								
110-128	37-55	-	-	008-25-1-5		008-25-2-5		008-25-3-5		92	248	257	160	72	65	32
		M20	22	008-25-1-5-2022		008-25-2-5-2022		008-25-3-5-2022								
		M22	24	008-25-1-5-2224		008-25-2-5-2224		008-25-3-5-2224								
		M24	28	008-25-1-5-2428		008-25-2-5-2428		008-25-3-5-2428								
		M24	36	008-25-1-5-2436		008-25-2-5-2436		008-25-3-5-2436								

- Material: drop forged alloy steel
- the SKQ clamps design allows workpieces to be clamped at any angle to the t slot
- new design generates increased clamping force

Side Clamps with elongated slot SKQ 10 (Spare Parts)

Positioning Stops page 86



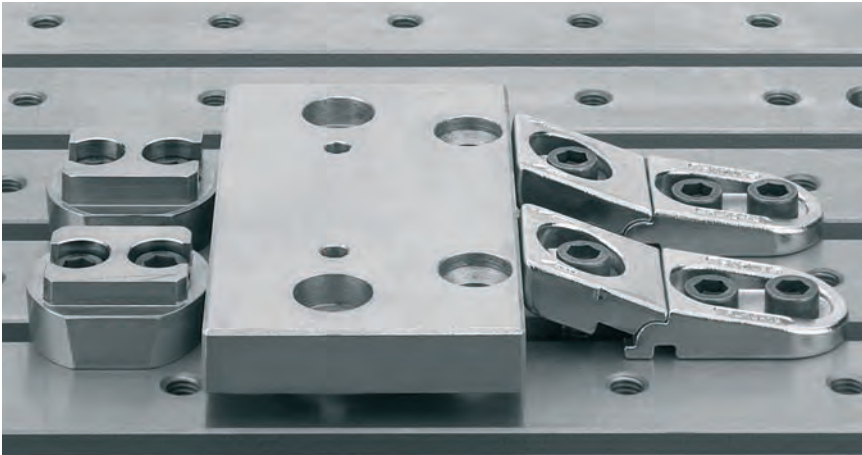
Fixing Set			Allen Key ⬆	Fixing Set with T-Slot Bolt			Allen Key ⬆	Driving Ring			Retaining Ring
Part No.		L	Part No.		Part No.		L	Part No.		s	Part No.
–		–	610-10		–		–	009-013-1-12		10	009-13-2
907-113-0810		35	610-06		906-13-1010-063		63	620-16		6	
907-113-1012		40	610-08		906-13-1212-063		63	620-18		8	
907-113-1214		45	610-10		906-13-1214-063		63			10	
907-113-1216		45			906-13-1216-080		80				
907-113-1218		50			906-13-1218-080		80				
–		–	610-14		–		–	009-017-1-16		14	009-17-2
907-117-1214		50	610-10		906-17-1214-063		63	620-18		10	
907-117-1416		55	610-12		906-17-1416-080		80	620-22		12	
907-117-1618		60	610-14		906-17-1618-080		80	620-24		14	
907-117-1620		60			906-17-1620-100		100				
907-117-1622		65			906-17-1622-100		100				
–		–	610-17		–		–	009-021-1-20		17	009-21-2
907-121-1618		65	610-14		906-21-1618-080		80	620-24		14	
907-121-1820		65			906-21-1820-100		100	620-27			
907-121-2022		70	610-17		906-21-2022-100		100	620-30		17	
907-121-2024		75			906-21-2024-100		100				
907-121-2028		80			906-21-2028-125		125				
–		–	612-19		–		–	009-025-1-24		19	009-25-2
907-125-2022		85	610-17		906-25-2022-125		125	620-30		17	
907-125-2224		90			906-25-2224-125		125	620-32			
907-125-2428		95	612-19		906-25-2428-125		125	620-36		19	
907-125-2436		110			906-25-2436-160		160				

4-way Positioning stops – greater flexibility for Side Clamps

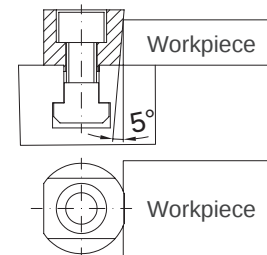
Application Examples: Machine shops and Tool rooms

- quick and easy to use
- more accurate positioning of the workpiece
- for low profile or high work
- able to be used in line or at an angle to the T slot and in Tapped holes

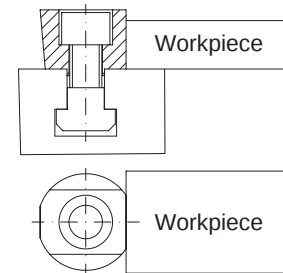
Positioning Stops used in conjunction with Side Clamps FL 10



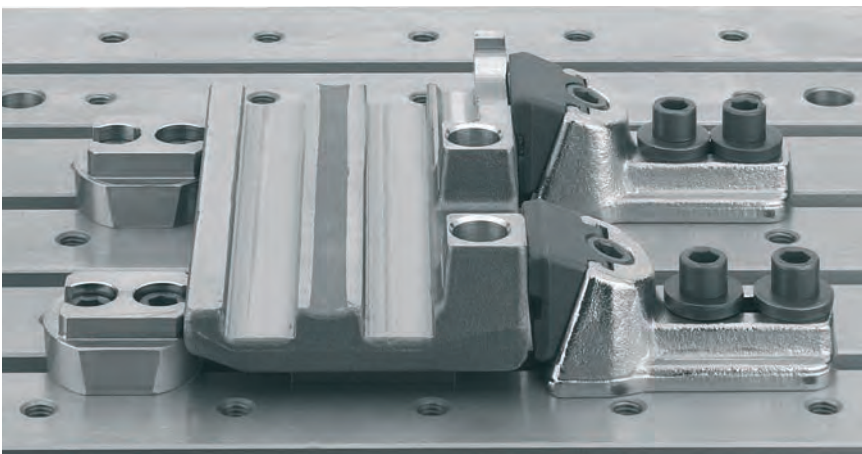
Positioning stop in side-clamping function against locating surface



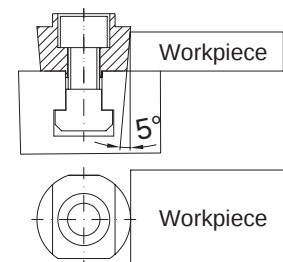
Positioning stop 90° angled against locating surface



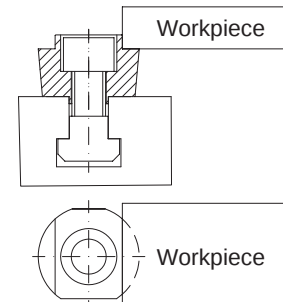
Positioning Stops used in conjunction with Side Clamps SK 10



Positioning stop in side-clamping function against locating point



Positioning stop in raised function 90° angled against locating surface



- Material: Hardened alloy steel
- Rhombus t-nut available to speed set up of clamp

4-way Positioning stops for Side Clamps

Positioning Stop with centering groove and single fixing point



			for T-Slots		for Tapped Holes							Fixing Set		
H	d	a	Part No.		Part No.		D	d1	h	h1	S	Part No.		L
25	–	14	520-025-1		–		36	12,5	17	2,5	24	–		
F	M10	12	520-025-1-1012		520-025-1-10					2,0		905-025-1-1012		30
	M12	14	520-025-1-1214		520-025-1-12					2,5		905-025-1-1214		30
45	–	–	520-045-1		–		36	12,5	37	2,5	24	–		
H	M10	12	520-045-1-1012		520-045-1-10					2,0		905-045-1-1012		50
	M12	14	520-045-1-1214		520-045-1-12					2,5		905-045-1-1214		55
32	–	18	520-032-1		–		45	16,5	24	4,0	32	–		
F	M14	16	520-032-1-1416		520-032-1-14					3,5		905-032-1-1416		35
	M16	18	520-032-1-1618		520-032-1-16					4,0		905-032-1-1618		40
55	–	–	520-055-1		–		45	16,5	47	4,0	32	–		
H	M14	16	520-055-1-1416		520-055-1-14					3,5		905-055-1-1416		60
	M16	18	520-055-1-1618		520-055-1-16					4,0		905-055-1-1618		65

Positioning Stop with centering groove and double fixing point



			for T-Slots		for Tapped Holes									Fixing Set		
H	d	a	Part No.		Part No.		D	d1	h	h1	S	S1	L2	Part No.		L
25	–	14	520-025-2		–		60	12,5	17	2,5	46	38	26	–		
F	M10	12	520-025-2-1012		520-025-2-10					2,0				905-025-2-1012		30
	M12	14	520-025-2-1214		520-025-2-12					2,5				905-025-2-1214		30
45	–	–	520-045-2		–		60	12,5	37	2,5	46	38	26	–		
H	M10	12	520-045-2-1012		520-045-2-10					2,0				905-045-2-1012		50
	M12	14	520-045-2-1214		520-045-2-12					2,5				905-045-2-1214		55
32	–	18	520-032-2		–		70	16,5	24	4,0	58	44	33	–		
F	M14	16	520-032-2-1416		520-032-2-14					3,5				905-032-2-1416		40
	M16	18	520-032-2-1618		520-032-2-16					4,0				905-032-2-1618		45
55	–	–	520-055-2		–		70	16,5	47	4,0	58	44	33	–		
H	M14	16	520-055-2-1416		520-055-2-14					3,5				905-055-2-1416		60
	M16	18	520-055-2-1618		520-055-2-16					4,0				905-055-2-1618		65

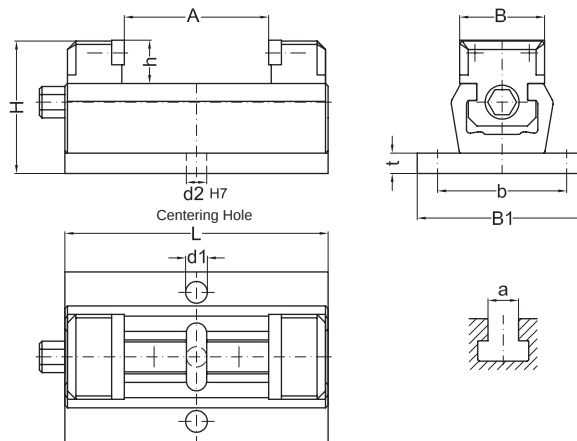
Self Centering Clamps (complete)

Application Examples: Metal cutting

- self centering
- centering accuracy is 0.04 mm
- interchangeable jaws
- Base Plate with centered tapped hole

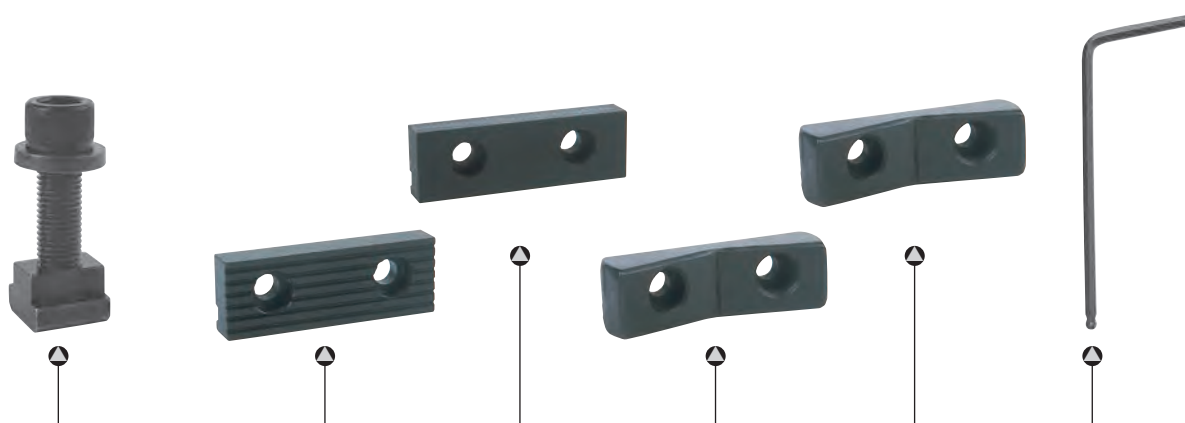
Clamping Force: **Up to 25 kN**

■ **Material: Hardened alloy steel**



															Allen Key	
A	d	a	Part No.		B	B1	L	H	h	t	b	d1	d2	kN	Part No.	
0-55	-	-	860-050-125-00		50	100	125	78	25	12	80	13	12	20	623-14	
	M10	12	860-050-125-1012													
	M12	14	860-050-125-1214													
	M12	16	860-050-125-1216													
0-85	-	-	860-050-155-00		50	100	155	78	25	12	80	13	12	20	623-14	
	M10	12	860-050-155-1012													
	M12	14	860-050-155-1214													
	M12	16	860-050-155-1216													
0-90	-	-	860-080-180-00		80	150	180	110	40	15	110	17	16	25	623-17	
	M12	14	860-080-180-1214													
	M14	16	860-080-180-1416													
	M16	18	860-080-180-1618													
	M16	20	860-080-180-1620													
0-130	-	-	860-080-220-00		80	150	220	110	40	15	110	17	16	25	623-17	
	M12	14	860-080-220-1214													
	M14	16	860-080-220-1416													
	M16	18	860-080-220-1618													
	M16	20	860-080-220-1620													
0-210	-	-	860-080-300-00		80	150	300	110	40	15	110	17	16	25	623-17	
	M12	14	860-080-300-1214													
	M14	16	860-080-300-1416													
	M16	18	860-080-300-1618													
	M16	20	860-080-300-1620													

Self Centering Clamps (Spare Parts)



Fixing Set				Steel Jaw		Plastic Jaw		Prism Steel Jaw		Prism Plastic Jaw		Allen Key	
Part No.		L	s	Part No.		Part No.		Part No.		Part No.		Part No.	
–		–	–	860-13-31		860-13-32		860-13-33		860-13-34		–	
907-50-1012		30	8									610-08	
907-50-1214		35	10									610-10	
907-50-1216		40											
–		–	–	860-13-31		860-13-32		860-13-33		860-13-34		–	
907-50-1012		30	8									610-08	
907-50-1214		35	10									610-10	
907-50-1216		40											
–		–	–	860-21-31		860-21-32		860-21-33		860-21-34		–	
907-80-1214		40	10									610-10	
907-80-1416			12									610-12	
907-80-1618		45	14									610-14	
907-80-1620		50											
–		–	–	860-21-31		860-21-32		860-21-33		860-21-34		–	
907-80-1214		40	10									610-10	
907-80-1416			12									610-12	
907-80-1618		45	14									610-14	
907-80-1620		50											
–		–	–	860-21-31		860-21-32		860-21-33		860-21-34		–	
907-80-1214		40	10									610-10	
907-80-1416			12									610-12	
907-80-1618		45	14									610-14	
907-80-1620		50											

Standard Parts and Accessories are an ideal addition to Lenzkes Clamps

Hardness of Bolts/Screws according to DIN ISO 898			
Hardness class	8.8	10.9	12.9
Tensile Strength N/mm ²	800	1000	1200
HRC Hardness	22–32	32–39	39–44

Hardness of Nuts according to DIN ISO 898			
Hardness class	8	10	12
Tensile Strength N/mm ²	800	1000	1200
HRC Hardness	20–27	25–32	32–39



Product Class: A and B

Surfaces: High-quality surface finish

Maintenance:

Fixing nuts and bolts that are used constantly should be regularly greased to increase life span of products.

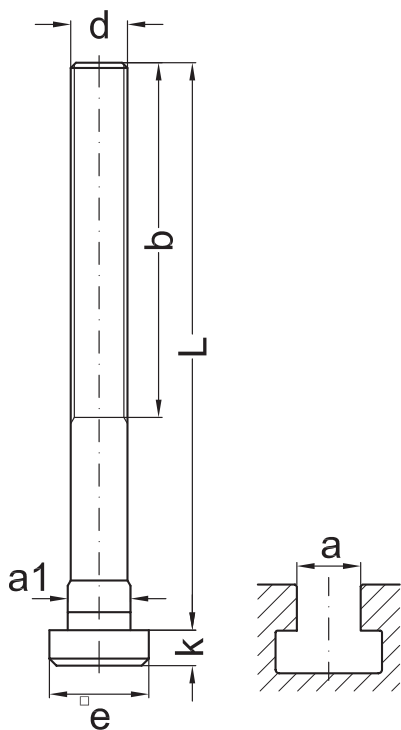


Bolts/Screws

Product Class A DIN ISO 4759 Part 1

T-Slot Bolts DIN 787

Hardness class 10.9



d	a	L	Part No.		e	k	b	a1
M06	6	25	787-0606-025		10	4	15	5,7
		40	787-0606-040				28	
		63	787-0606-063				40	
M08	8	32	787-0808-032		13	6	22	7,7
		50	787-0808-050				35	
		80	787-0808-080				50	
M10	10	40	787-1010-040		15	6	30	9,7
		63	787-1010-063				45	
		100	787-1010-100				60	
M10	12	125	787-1012-125		18	7	75	11,7
		132	787-1012-132				80	
		180	787-1012-180				110	
M12	12	50	787-1212-050		18	7	35	11,7
		63	787-1212-063				40	
		80	787-1212-080				55	
		100	787-1212-100				63	
		125	787-1212-125				75	
		132	787-1212-132				80	
		180	787-1212-180				100	
		200	787-1212-200				120	
M12	14	50	787-1214-050		22	8	35	13,7
		55	787-1214-055				40	
		63	787-1214-063				40	
		80	787-1214-080				55	
		100	787-1214-100				65	
		112	787-1214-112				70	
		125	787-1214-125				75	
		132	787-1214-132				80	
		180	787-1214-180				110	
		200	787-1214-200				120	
		250	787-1214-250				150	
M14	16	63	787-1416-063		25	9	45	15,7
		80	787-1416-080				55	
		100	787-1416-100				63	
		112	787-1416-112				70	
		140	787-1416-140				90	
		160	787-1416-160				100	
		190	787-1416-190				110	
		250	787-1416-250				150	
M16	16	63	787-1616-063		25	9	45	15,7
		100	787-1616-100				63	
		125	787-1616-125				85	
		160	787-1616-160				100	
		200	787-1616-200				125	
		250	787-1616-250				150	

Bolts/Screws

Product Class A DIN ISO 4759 Part 1

d	a	L	Part No.	e	k	b	a1
M16	18	63	787-1618-063	28	10	45	17,7
		80	787-1618-080			55	
		100	787-1618-100			63	
		125	787-1618-125			85	
		150	787-1618-150			90	
		160	787-1618-160			100	
		200	787-1618-200			125	
		250	787-1618-250			150	
		265	787-1618-265			160	
		360	786-1618-360			250	
M18	20	100	787-1820-100	32	12	63	19,7
		160	787-1820-160			100	
		200	787-1820-200			125	
		265	787-1820-265			160	
		315	787-1820-315			200	
		360	787-1820-360			250	
M20	20	80	787-2020-080	32	12	55	19,7
		100	787-2020-100			65	
		125	787-2020-125			85	
		160	787-2020-160			110	
		200	787-2020-200			125	
		250	787-2020-250			150	
		265	787-2020-265			160	
		315	787-2020-315			190	
M20	22	80	787-2022-080	35	14	55	21,7
		100	787-2022-100			63	
		125	787-2022-125			85	
		160	787-2022-160			100	
		180	787-2022-180			120	
		200	787-2022-200			125	
		212	787-2022-212			130	
		250	787-2022-250			150	
		280	787-2022-280			170	
		315	787-2022-315			190	
		365	787-2022-365			250	
M22	24	125	787-2224-125	40	16	85	23,7
		200	787-2224-200			125	
		224	787-2224-224			135	
		280	787-2224-280			170	
		370	786-2224-370			250	
M24	24	100	787-2424-100	40	16	70	23,7
		125	787-2424-125			85	
		160	787-2424-160			110	
		200	787-2424-200			125	
		224	787-2424-224			135	
		290	787-2424-290			180	

d	a	L	Part No.	e	k	b	a1
M24	28	100	787-2428-100	44	18	70	27,7
		125	787-2428-125			85	
		145	787-2428-145			90	
		160	787-2428-160			110	
		200	787-2428-200			125	
		224	787-2428-224			135	
		250	787-2428-250			150	
		290	787-2428-290			180	
		315	787-2428-315			190	
		380	787-2428-380			240	
M24	36	230	786-2436-230	54	22	160	35,6
		290	786-2436-290			200	
		380	786-2436-380			250	
M27	32	200	787-2732-200	50	20	125	31,6
		250	787-2732-250			160	
M30	36	125	787-3036-125	54	22	80	35,6
		160	787-3036-160			110	
		200	787-3036-200			135	
		250	787-3036-250			150	
		280	787-3036-280			190	
		315	787-3036-315			200	

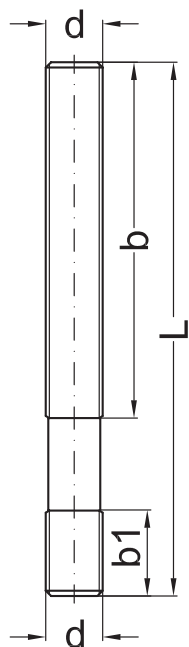


Bolts/Screws

Product Class A DIN ISO 4759 Part 1

Stud Bolts DIN 6379

Thread rolled
Hardness class 10.9



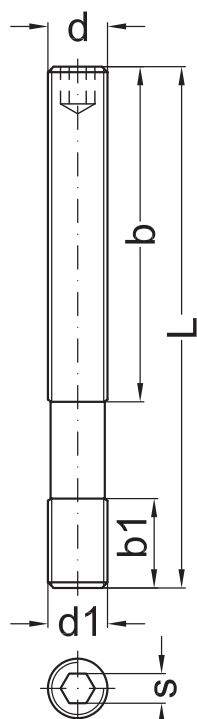
d	L	Part No.	b	b1
M06	32	379-06-032	16	9
	50	379-06-050	30	
	80	379-06-080	50	
M08	40	379-08-040	20	11
	63	379-08-063	40	
	100	379-08-100	63	
	160	379-08-160	100	
	1000	379-08-1000	500	
M10	50	379-10-050	25	13
	63	379-10-063	32	
	80	379-10-080	50	
	100	379-10-100	75	
	125	379-10-125	75	
	140	379-10-140	90	
	200	379-10-200	125	
	1000	379-10-1000	500	
M12	63	379-12-063	32	15
	80	379-12-080	50	
	100	379-12-100	63	
	125	379-12-125	75	
	150	379-12-150	90	
	200	379-12-200	125	
	265	379-12-265	160	
	1000	379-12-1000	500	
M14	63	379-14-063	32	17
	80	379-14-080	50	
	100	379-14-100	63	
	125	379-14-125	75	
	160	379-14-160	100	
	200	379-14-200	125	
	250	379-14-250	160	
	265	379-14-265	160	
M16	360	379-14-360	230	19
	80	379-16-080	50	
	100	379-16-100	63	
	125	379-16-125	75	
	160	379-16-160	100	
	200	379-16-200	125	
	250	379-16-250	160	
	280	379-16-280	160	
	315	379-16-315	180	
	370	379-16-370	250	
M16	400	379-16-400	250	
	500	379-16-500	315	
	1000	379-16-1000	500	

d	L	Part No.	b	b1
M18	80	379-18-080	50	23
	125	379-18-125	75	
	140	379-18-140	80	
	170	379-18-170	100	
	200	379-18-200	125	
	212	379-18-212	125	
	280	379-18-280	160	
M20	315	379-18-315	180	27
	80	379-20-080	32	
	125	379-20-125	70	
	160	379-20-160	100	
	180	379-20-180	110	
	200	379-20-200	125	
	224	379-20-224	130	
	250	379-20-250	160	
	280	379-20-280	160	
	315	379-20-315	200	
M22	385	379-20-385	250	31
	400	379-20-400	250	
	500	379-20-500	315	
	1000	379-20-1000	500	
	100	379-22-100	45	
	160	379-22-160	100	
	224	379-22-224	130	
	250	379-22-250	160	
M24	315	379-22-315	180	35
	400	379-22-400	250	
	100	379-24-100	45	
	160	379-24-160	100	
	200	379-24-200	125	
	224	379-24-224	130	
	250	379-24-250	160	
	315	379-24-315	200	
M30	400	379-24-400	250	43
	500	379-24-500	315	
	630	379-24-630	315	
	1000	379-24-1000	500	
	125	379-30-125	55	
	200	379-30-200	125	
	315	379-30-315	200	
	500	379-30-500	315	
M30	700	379-30-700	400	43
	1000	379-30-1000	400	

Stud Bolts with Hexagon Insert

Thread rolled

Hardness class 10.9



d	d1	L	Part No.		b	b1	s
M10	M10	112	380-10-112		75	15	5
		140	380-10-140		90		
M12	M12	112	380-12-112		75	18	6
		140	380-12-140		90		
		200	380-12-200		125		
M14	M14	125	380-14-125		75	21	8
		150	380-14-150		95		
		200	380-14-200		125		
M16	M16	125	380-16-125		75	24	8
		160	380-16-160		105		
		200	380-16-200		125		
		280	380-16-280		160		
M18	M18	160	380-18-160		100	27	10
		212	380-18-212		125		
		280	380-18-280		160		
M20	M20	160	380-20-160		100	30	10
		180	380-20-180		110		
		224	380-20-224		125		
		250	380-20-250		150		
		300	380-20-300		160		
		385	380-20-385		250		
M22	M22	224	380-22-224		125	33	10
		315	380-22-315		180		
M24	M24	200	380-24-200		110	36	12
		250	380-24-250		150		
		315	380-24-315		200		
		400	380-24-400		250		
M24	M30	250	380-24-250-30		150	43	12
		315	380-24-315-30		200		
		400	380-24-400-30		250		
M30	M30	280	380-30-280		160	43	12
		315	380-30-315		200		

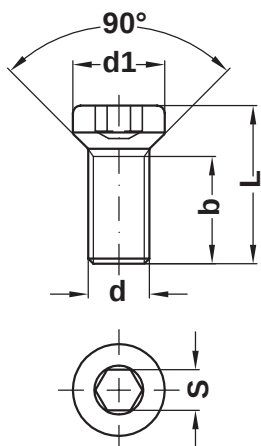
Inch							
d	d1	L	Part No.		b	b1	s
M12	1/2	112	381-12-112-012		75	18	6
M16	5/8	125	381-16-160-58		75	24	8
		200	381-16-200-58		125		
		280	381-16-280-58		160		
M20	3/4	160	381-20-160-34		100	30	10
		224	381-20-224-34		125		
		300	381-20-300-34		160		



Bolts/Screws

Product Class A DIN ISO 4759 Part 1

Countersunk Screws with Hexagon Insert Hardness class 12.9



d	L	Part No.	b	d1	s
M06	19	390-06-019	10	15,5	6
	24	390-06-024	15		
	31	390-06-031	18		
M08	26	390-08-026	18	15,5	6
	30	390-08-030	20		
	35	390-08-035	25		
	40	390-08-040	30		
M10	29	390-10-029	19	18,0	8
	35	390-10-035	23		
	38	390-10-038	23		
M12	27	390-12-027	17	18,0	8
	31	390-12-031	21		
	35	390-12-035	25		
	40	390-12-040	30		
	50	390-12-050	30		
M14	35	390-14-035	24	22,5	10
	41	390-14-041	30		
	48	390-14-048	36		
	55	390-14-055	36		
	62	390-14-062	40		
M16	35	390-16-035	24	22,5	10
	40	390-16-040	28		
	45	390-16-045	33		
	48	390-16-048	33		
	55	390-16-055	40		
	58	390-16-058	40		
	65	390-16-065	45		
	70	390-16-070	45		
M18	45	390-18-045	32	29,0	12
	51	390-18-051	38		
	55	390-18-055	40		
	60	390-18-060	42		
	70	390-18-070	48		
M20	42	390-20-042	29	29,0	12
	51	390-20-051	37		
	55	390-20-055	40		
	60	390-20-060	42		
	65	390-20-065	47		
	68	390-20-068	50		
M22	55	390-22-055	40	35,0	12
	60	390-22-060	45		
	68	390-22-068	50		
	80	390-22-080	60		

d	L	Part No.	b	d1	s
M24	50	390-24-050	35	35,0	12
	60	390-24-060	45		
	68	390-24-068	46		
	74	390-24-074	52		
	86	390-24-086	60		
M27	100	390-24-100	70		
	60	390-27-060	45	41,0	12
M30	80	390-27-080	55		
	60	390-30-060	46	41,0	12
M36	75	390-30-075	60		
	86	390-30-086	70		
	100	390-30-100	80		
M36	66	390-36-066	52	47,0	12
	100	390-36-100			

Custom Parts					
d	L	Part No.	b	d1	s
M08	25	390-12-025-08	15	18,0	8
	29	390-12-029-08	18		
	33	390-12-033-08			
	40	390-12-040-08	25		
M10	27	390-08-027-10	19	15,5	6
	35	390-08-035-10	23		
	38	390-08-038-10	25		
	30	390-08-030-12	22	15,5	6
	36	390-08-036-12	26		
M12	40	390-08-040-12	30		
	45	390-08-045-12	35		
	50	390-08-050-12	40		
	35	390-16-035-12	24	22,6	10
	40	390-16-040-12			
M16	42	390-20-042-16	29	29,0	12
	51	390-20-051-16	38		
M20	50	390-24-050-20	36	35,0	12
	60	390-24-060-20			
M24	60	390-30-060-24	45	41,0	12

d	L	Part No.	b	d1	s
M16	35	390-16-035-SW08	24	22,5	8
	40	390-16-040-SW08	28		
	45	390-16-045-SW08	33		
M20	50	390-20-050-SW10	37	29,0	10

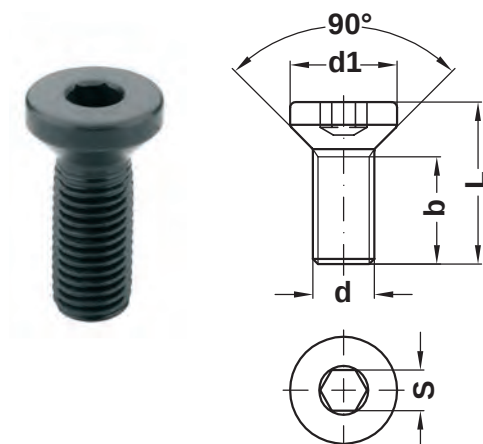
Bolts/Screws

Product Class A DIN ISO 4759 Part 1

Customised enlarged fixing bolt head with Hexagon Insert

Hardness class 12.9

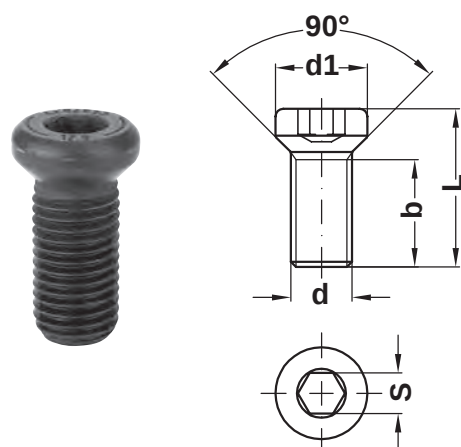
Exclusively for MQ 60S, MQ 100S



d	L	Part No.		b	d1	s
M12	30	391-12-030		19	22,3	8
	33	391-12-033		21		
	40	391-12-040		25		
M16	38	391-16-038		24	27,3	10
	43	391-16-043		27		
	51	391-16-051		35		
M20	46	391-20-046		29	33,0	12
	54	391-20-054		36		
	64	391-20-064		45		
M24	56	391-24-056		36	39,0	14
	67	391-24-067		45		
	80	391-24-080		55		
M30	68	391-30-068		47	45,0	14
	82	391-30-082		60		
	95	391-30-095		70		
M36	80	391-36-080		60	47,0	14
	96	391-36-096		76		

Countersunk Screws with Hexagon Insert

Hardness class 12.9



Inch						
d	L	Part No.		b	d1	s
1/2"	28	395-012-028		17	18,0	8
	38	395-012-038				
	38	395-012-050				
	35	395-16-035-012		24	22,6	
5/8"	37	395-058-037		26	22,6	10
	42	395-058-042				
	50	395-058-050		39		
	60	395-058-060				
	75	395-058-075				
3/4"	45	395-034-045		32	29,0	12
	60	395-034-060				
	50	395-24-050-034			35,0	
1"	60	395-100-060		46	35,0	12
	75	395-100-075				

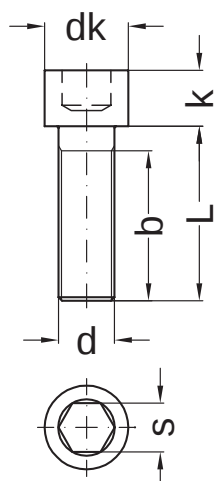


Bolts/Screws

Product Class A DIN ISO 4759 Part 1

Socket Head Bolts DIN 912

Hardness class 10.9
for Fixing Set SK / SKO

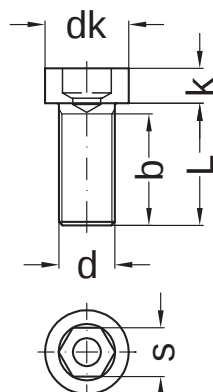


d	L	Part No.		b	k	dk	s
M04	16	908-04-016		14	4,0	7,0	3
M05	16	908-05-016		14	5,0	8,5	5
	18	908-05-018		16			
M06	12	908-06-012		10	6,0	10,0	5
	20	908-06-020		18			
	25	908-06-025		23			
M08	16	908-08-016		14	8,0	13,0	6
	25	908-08-025		23			
	35	908-08-035					
	40	908-08-040					

d	L	Part No.		b	k	dk	s
M10	25	908-10-025		23	10,0	16,0	8
	30	908-10-030					
	35	908-10-035					
	40	908-10-040					
	50	908-10-050					
M12	25	908-12-025		23	12,0	18,0	10
	30	908-12-030					
	35	908-12-035					
	40	908-12-040		36			
	45	908-12-045					
	50	908-12-050					
	55	908-12-055					
M14	35	908-14-035		32	14,0	21,0	12
	40	908-14-040					
	50	908-14-050		40			
	55	908-14-055					
	70	908-14-070					
M16	45	908-16-045		43	16,0	24,0	14
	50	908-16-050		44			
	55	908-16-055					
	60	908-16-060					
	65	908-16-065					
	70	908-16-070					
	80	908-16-080					
	90	908-16-090					
	95	908-16-095					
M18	40	908-18-040		38	18,0	27,0	14
	50	908-18-050		48			
	60	908-18-060					
	65	908-18-065					
	75	908-18-075					
	100	908-18-100					
M20	65	908-20-065		52	20,0	30,0	17
	70	908-20-070					
	75	908-20-075					
	80	908-20-080					
	85	908-20-085					
	90	908-20-090					
	100	908-20-100					
M22	85	908-22-085		52	22,0	33,0	17
	90	908-22-090					
	110	908-22-110					
M24	90	908-24-090		60	24,0	36,0	19
	95	908-24-095					
	100	908-24-100					
	110	908-24-110					
	120	908-24-120					



Socket Head Bolts DIN 6912

 Hardness class 8.8
 for Fixing Set FL 10


d	L	Part No.		b	k	dk	s
M04	8	909-04-008		7	2,8	7,0	3
	10	909-04-010		7			
M05	16	909-05-016		15	3,5	8,5	4
	18	909-05-018		17			
M06	12	909-06-012		9	4,0	10,0	5
	20	909-06-020		18			
	22	909-06-022					
M08	16	909-08-016		14	5,0	13,0	6
	20	909-08-020		18			
	22	909-08-022		20			
	25	909-08-025		23			
	30	909-08-030					
	40	909-08-040					
M10	20	909-10-020		18	6,5	16,0	7
	25	909-10-025		23			
	30	909-10-030		26			
	45	909-10-045					
M12	30	909-12-030		28	7,5	18,0	10
	35	909-12-035		30			
	40	909-12-040					
	45	909-12-045					
M14	35	909-14-035		33	8,5	21,0	12
	40	909-14-040		36			
	60	909-14-060					
M16	35	909-16-035		33	10,0	24,0	14
	40	909-16-040		38			
	45	909-16-045					
	50	909-16-050					
M18	40	909-18-040		33	11,0	27,0	14
	45	909-18-045		38			
	50	909-18-050					
M20	45	909-20-045		43	12,0	30,0	17
	50	909-20-050					
	55	909-20-055		46			
	60	909-20-060					
	65	909-20-065					
	70	909-20-070					

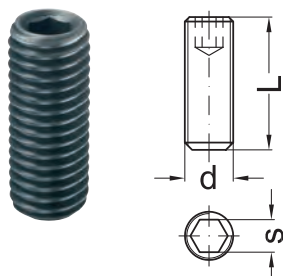


Bolts/Screws

Product Class A DIN ISO 4759 Part 1

Threaded Pins DIN 913

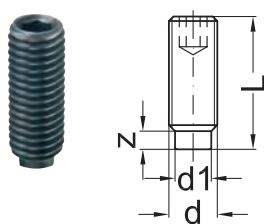
Hardness class 45H
for side clamps



d	L	Part No.		s
M05	8	913-05-008		2,5
	12	913-05-012		
M06	12	913-06-012		3
	18	913-06-018		
	20	913-06-020		
M08	20	913-08-020		4
M10	25	913-10-025		5
M12	30	913-12-030		6
M16	40	913-16-040		8
	45	913-16-045		
M20	50	913-20-050		10

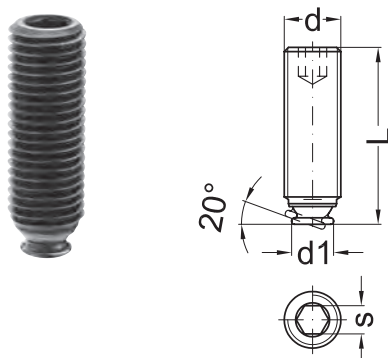
Threaded Pins DIN 915

Hardness class 45H
for Protection Plates

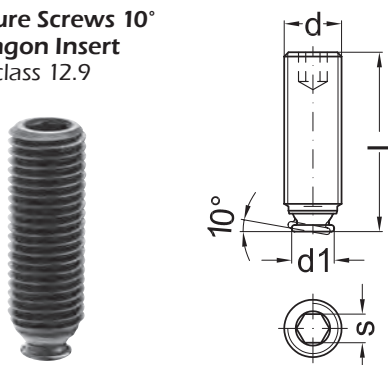


d	L	Part No.		d1	z	s
M04	4	915-04-004		2,5	1,3	2
M05	5	915-05-005		3,5	1,5	2,5
	10	915-05-010				
M06	8	915-06-008		4	1,8	3
	12	915-06-012				
M08	14	915-08-014		5,5	2,3	4
M10	16	915-10-016		7	2,8	5

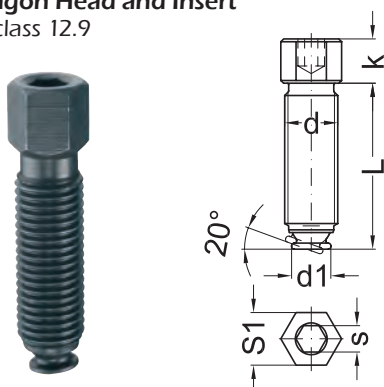


**Ball Pressure Screws 20°
with Hexagon Insert**
 Hardness class 12.9


d	L	Part No.		d1	s
M12	32	310-12-032		7	6
	36	310-12-036			
	40	310-12-040			
M16	50	310-16-050		12	8
	55	310-16-055			
	60	310-16-060			
	70	310-16-070			
	80	310-16-080			
M20	55	310-20-055		15	10
	60	310-20-060			
	66	310-20-066			
	70	310-20-070			
	83	310-20-083			
M24	60	310-24-060		18	12
	70	310-24-070			
	80	310-24-080			
	90	310-24-090			
	98	310-24-098			
M27	78	310-27-078		20	14
	95	310-27-095			
	110	310-27-110			
M30	110	310-30-110		22	14
	122	310-30-122			

**Ball Pressure Screws 10°
with Hexagon Insert**
 Hardness class 12.9


d	L	Part No.		d1	s
M 8	20	309-08-020		5	4
M10	25	309-10-025		6	5
M12	30	309-12-030		7	6
M16	40	309-16-040		12	8
M20	50	309-20-050		15	10

**Ball Pressure Screws
with Hexagon Head and Insert**
 Hardness class 12.9


d	L	Part No.		d1	s	s1	k
M12	36	311-12-036		8	6	13	12
	40	311-12-040					
M16	50	311-16-050		12	8	16	15
	60	311-16-060					
M20	60	311-20-060		15	10	19	17
	70	311-20-070					
M24	70	311-24-070		18	12	24	20
	80	311-24-080					
	90	311-24-090					

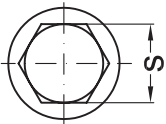
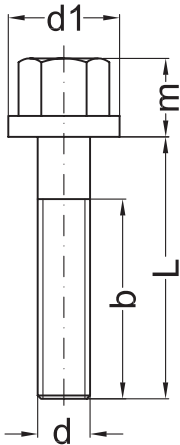


Bolts/Screws

Product Class A DIN ISO 4759 Part 1

Hexagon High Head Bolts

Hardness class 10.9



d	L	Part No.	b	d1	m	s
M08	65	385-08-065	40	18	11	13
M10	65	385-10-065	45	22	13	16
	75	385-10-075	60			
	100	385-10-100	80			
	110	385-10-110	80			
M12	65	385-12-065	45	25	16	18
	80	385-12-080	60			
	105	385-12-105	90			
	170	385-12-170	90			
M14	70	385-14-070	50	28	19	21
	85	385-14-085	65			
	110	385-14-110	90			
	175	385-14-175	90			
M16	75	385-16-075	60	31	21	24
	80	385-16-080	70			
	85	385-16-085	70			
	110	385-16-110	95			
	175	385-16-175	95			
	215	385-16-215	165			
M18	95	385-18-095	70	34	24	27
	115	385-18-115	100			
	180	385-18-180	100			
M20	95	385-20-095	75	37	26	30
	105	385-20-105	85			
	112	385-20-112	90			
	120	385-20-120	100			
	130	385-20-130	100			
	165	385-20-165	130			
	185	385-20-185	140			
	225	385-20-225	175			
M22	130	385-22-130	90	40	28	34
	190	385-22-190	110			
M24	115	385-24-115	95	45	30	36
	130	385-24-130	110			
	145	385-24-145	120			
	170	385-24-170	140			
	190	385-24-190	150			
	230	385-24-230	190			

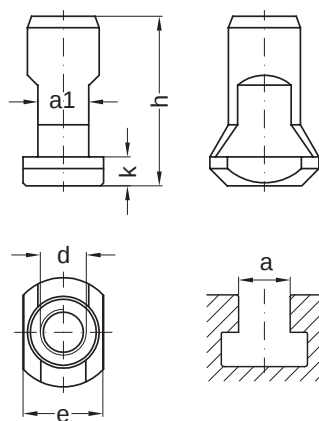


T-Nuts

Product Class A DIN ISO 4759 Part 1

T-Nuts high for Clamping Frames

Hardness class 10



d	a	Part No.	a1	e	h	k
M08	10	505-045-0810	9,7	15	35	6
M10	12	505-045-1012	11,7	18	38	7
		505-070-1012			50	
		505-110-1012			70	
M12	14	505-045-1214	13,7	22	40	8
		505-070-1214			52	
		505-110-1214			80	
M14	16	505-045-1416	15,7	25	44	9
		505-070-1416			56	
		505-110-1416			84	
M16	18	505-045-1618	17,7	28	47	10
		505-070-1618			55	
		505-110-1618			87	
		505-180-1618			120	
		505-260-1618			160	
M16	20	505-045-1620	19,7	32	50	12
		505-110-1620			90	
		505-180-1620			123	
		505-260-1620			163	
M16	22	505-045-1622	21,7	35	54	14
M18	20	505-070-1820	19,7	32	61	12
		505-110-1820			90	
		505-180-1820			122	
M20	22	505-070-2022	21,7	35	65	14
		505-110-2022			90	
		505-180-2022			126	
		505-260-2022			166	
M20	24	505-070-2024	23,7	40	68	16
		505-110-2024			90	
		505-180-2024			130	
		505-260-2024			170	
M20	28	505-070-2028	27,7	44	73	18
M22	24	505-110-2224	23,7	40	90	16
		505-180-2224				
M24	28	505-080-2428	27,7	44	80	18
		505-110-2428			100	
		505-180-2428			135	
		505-260-2428			175	
M24	32	505-110-2432	31,6	50	104	20
M24	36	505-110-2436	35,6	54	116	22
		505-180-2436			150	
M24	42	505-110-2442	41,6	65	135	26



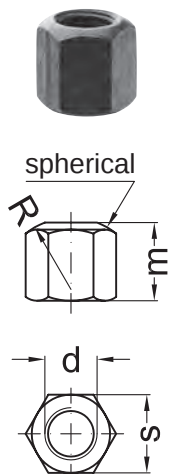
Hexagonal Nuts

Product Class A DIN ISO 4759 Part 1
*old DIN-class

Hexagonal Nuts DIN 6330 B

1,5 d high

Hardness class 10

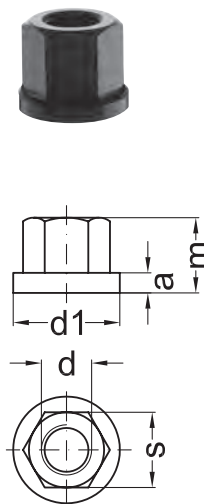


d	Part No.	s	m	r
M06	330-06	10	9	9
M08	330-08	13	13	12
M10	330-10	16	15	15
M10	330-10-17	17*	15	15
M12	330-12	18	18	17
M12	330-12-19	19*	18	17
M14	330-14	21	21	20
M14	330-14-22	22*	21	20
M16	330-16	24	24	22
M18	330-18	27	27	24
M20	330-20	30	30	27
M22	330-22	34	33	30
M22	330-22-32	32*	33	30
M24	330-24	36	36	32
M27	330-27	41	40	36
M30	330-30	46	45	41

Hexagonal Collar Nuts DIN 6331

1,5 d high

Hardness class 10



d	Part No.	s	m	a	d1
M06	331-06	10	9	3	14
M08	331-08	13	12	3,5	18
M10	331-10	16	15	4	22
M10	331-10-17	17*	15	4	22
M12	331-12	18	18	4	25
M12	331-12-19	19*	18	4	25
M14	331-14	21	21	4,5	28
M14	331-14-22	22*	21	4,5	28
M16	331-16	24	24	5	31
M18	331-18	27	27	5	34
M20	331-20	30	30	6	37
M22	331-22	34	33	6	40
M22	331-22-32	32*	33	6	40
M24	331-24	36	36	6	45
M27	331-27	41	40	8	50
M30	331-30	46	45	8	58



- Extension nuts series 936 serve as support for Clamping frames series
- The risk of accidents are reduced upon release of the workpiece by the clamps being secured to the machine table

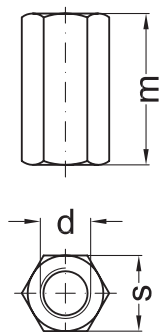
Hexagonal Nuts

Product Class A DIN ISO 4759 Part 1
 *old DIN-class

Extension Nuts DIN 6334

3,0 d high

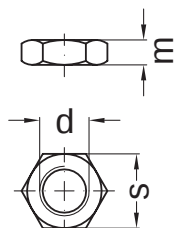
Hardness class 10



d	Part No.	s	m
M06	334-06	10	18
M08	334-08	13	24
M10	334-10	16	30
M10	334-10-17	17*	30
M12	334-12	18	36
M12	334-12-19	19*	36
M14	334-14	21	42
M14	334-14-22	22*	42
M16	334-16	24	48
M18	334-18	27	54
M20	334-20	30	60
M22	334-22	34	66
M22	334-22-32	32*	66
M24	334-24	36	72
M30	334-30	46	90

Hexagon nut flat design DIN 936

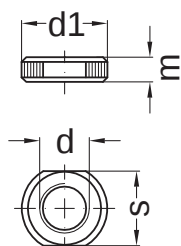
for clamping frames



d	Part No.	s	m
M08	936-08-13	13	5
M14	936-14-22	22	8
M16	936-16-24	24	8
M18	936-18-27	27	9
M20	936-20-30	30	9
M24	936-24-36	36	10
M30	936-30-46	46	12

Knurled fixing nut flat design

for clamping frames



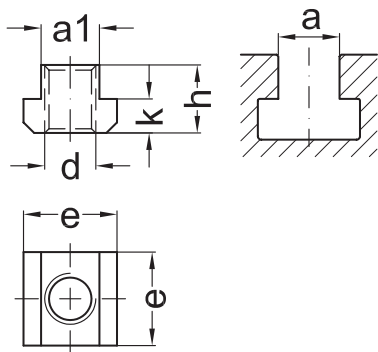
d	Part No.	s	m	d1
M10	936-10-16	16	6	18
M10	936-10-17	17	6	18
M12	936-12-18	18	7	22
M12	936-12-19	19	7	22



T-Nuts

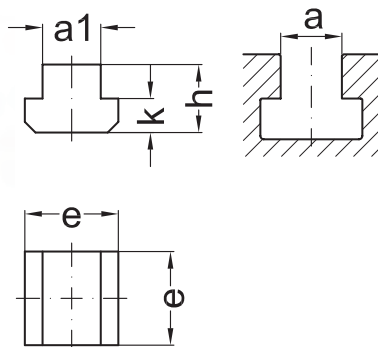
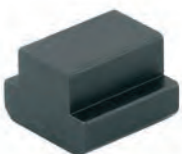
Product Class A DIN ISO 4759 Part 1

T-Nuts DIN 508 Hardness class 10



d	a	Part No.		a1	e	h	k
M05	6	508-0506		5,7	10	8	4
M06	8	508-0608		7,7	13	10	6
M08	10	508-0810		9,7	15	12	6
	12	508-0812		11,7	18	14	7
	14	508-0814		13,7	22	16	8
M10	12	508-1012		11,7	18	14	7
	14	508-1014		13,7	22	16	8
	16	508-1016		15,7	25	18	9
	18	508-1018		17,7	28	20	10
M12	14	508-1214		13,7	22	16	8
	16	508-1216		15,7	25	18	9
	18	508-1218		17,7	28	20	10
M14	16	508-1416		15,7	25	18	9
	18	508-1418		17,7	28	20	10
M16	18	508-1618		17,7	28	20	10
	20	508-1620		19,7	32	24	12
	22	508-1622		21,7	35	28	14
	24	508-1624		23,7	40	32	16
	28	508-1628		27,7	44	36	18
M18	20	508-1820		19,7	32	24	12
	22	508-1822		21,7	35	28	14
M20	22	508-2022		21,7	35	28	14
	24	508-2024		23,7	40	32	16
	28	508-2028		27,7	44	36	18
M22	24	508-2224		23,7	40	32	16
	28	508-2228		27,7	44	36	18
M24	28	508-2428		27,7	44	36	18
	32	508-2432		31,6	50	40	20
	36	508-2436		35,6	54	44	22
	42	508-2442		41,6	65	52	26
M27	32	508-2732		31,6	50	40	20
M30	36	508-3036		35,6	54	44	22
M36	42	508-3642		41,6	65	52	26

T-Nuts DIN 508 blank



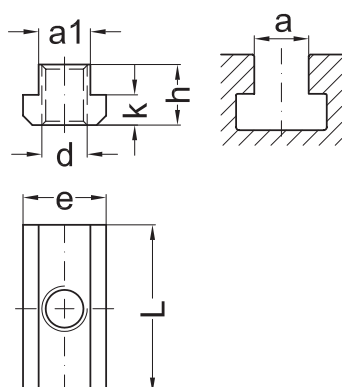
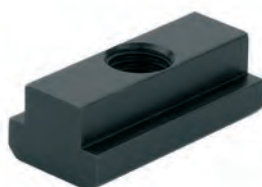
a	Part No.		a1	e	h	k
6	508-0006		5,7	10	8	4
8	508-0008		7,7	13	10	6
10	508-0010		9,7	15	12	6
12	508-0012		11,7	18	14	7
14	508-0014		13,7	22	16	8
16	508-0016		15,7	25	18	9
18	508-0018		17,7	28	20	10
20	508-0020		19,7	32	24	12
22	508-0022		21,7	35	28	14
24	508-0024		23,7	40	32	16
28	508-0028		27,7	44	36	18
32	508-0032		31,6	50	40	20
36	508-0036		35,6	54	44	22
42	508-0042		41,6	65	52	26

T-Nuts

Product Class A DIN ISO 4759 Part 1

T-Nuts DIN 508 L long

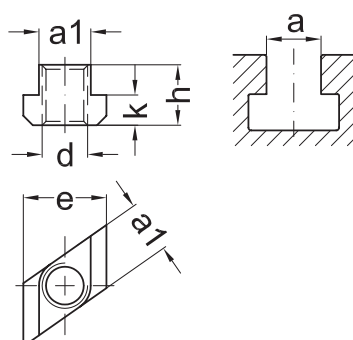
Hardness class 10



d	a	Part No.	a1	e	h	k	L
M06	8	503-0608	7,7	13	10	6	26
M08	10	503-0810	9,7	15	12	6	30
	12	503-0812	11,7	18	14	7	36
M10	12	503-1012	11,7	18	14	7	36
	18	503-1018	17,7	28	20	10	56
M12	14	503-1214	13,7	22	16	8	44
	16	503-1216	15,7	25	18	9	50
	18	503-1218	17,7	28	20	10	56
M14	16	503-1416	15,7	25	18	9	50
M16	18	503-1618	17,7	28	20	10	56
	20	503-1620	19,7	32	24	12	64
	22	503-1622	21,7	35	28	14	70
M18	20	503-1820	19,7	32	24	12	64
M20	22	503-2022	21,7	35	28	14	70
	24	503-2024	23,7	40	32	16	80
	28	503-2028	27,7	44	36	18	88
M22	24	503-2224	23,7	40	32	16	80
M24	28	503-2428	27,7	44	36	18	88
	36	503-2436	35,6	54	44	22	108
M30	36	503-3036	35,6	54	44	22	108

T-Nuts DIN 508 R Rhombus

Hardness class 10



d	a	Part No.	a1	e	h	k
M06	8	504-0608	7,7	13	10	6
M08	10	504-0810	9,7	15	12	6
M10	12	504-1012	11,7	18	14	7
M12	14	504-1214	13,7	22	16	8
	16	504-1216	15,7	25	18	9
	18	504-1218	17,7	28	20	10
M14	16	504-1416	15,7	25	18	9
M16	18	504-1618	17,7	28	20	10
	20	504-1620	19,7	32	24	12
	22	504-1622	21,7	35	28	14
	28	504-1628	27,7	44	36	18
M18	20	504-1820	19,7	32	24	12
M20	22	504-2022	21,7	35	28	14
	24	504-2024	23,7	40	32	16
	28	504-2028	27,7	44	36	18
M22	24	504-2224	23,7	40	32	16
M24	28	504-2428	27,7	44	36	18
	36	504-2436	35,6	54	44	22
M30	36	504-3036	35,6	54	44	22

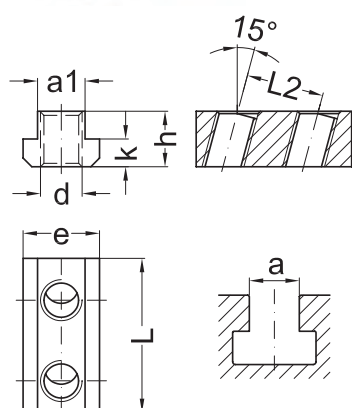


T-Nuts · Special Design

Product Class A DIN ISO 4759 Part 1

T-Nuts with two holes, 15°

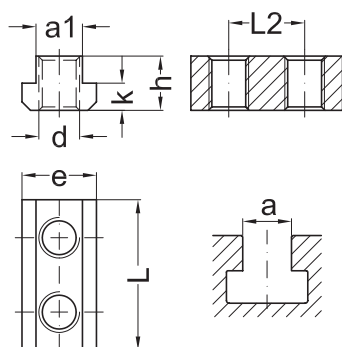
Hardness class 10
for FL 10 und SK/SKQ 10



d	a	Part No.	a1	e	h	k	L	L2
M 8	10	503-0810-2-15-13	9,7	15	12	6	42	25
M10	12	503-1012-2-15	11,7	18	14	7	48	25
M12	14	503-1214-2-15	13,7	22	16	8	48	25
		503-1214-2-15-17					56	33
	16	503-1216-2-15	15,7	25	18	9	50	25
	18	503-1218-2-15	17,7	28	20	10		
M14	16	503-1416-2-15	15,7	25	18	9	59	33
M16	18	503-1618-2-15	17,7	28	20	10	61	33
		503-1618-2-15-21					68	40
	20	503-1620-2-15	19,7	32	24	12	64	33
	22	503-1622-2-15	21,7	35	28	14	64	33
M18	20	503-1820-2-15	19,7	32	24	12	72	40
M20	22	503-2022-2-15	21,7	35	28	14	75	40
		503-2022-2-15-25					83	48
	24	503-2024-2-15	23,7	40	32	16	76	40
	28	503-2028-2-15	27,7	44	36	18	77	40
M22	24	503-2224-2-15	23,7	40	32	16	88	48
M24	28	503-2428-2-15	27,7	44	36	18	92	48
	36	503-2436-2-15	35,6	54	44	22	94	48

T-Nuts with two holes

Hardness class 10
for FL 10 und SK 10

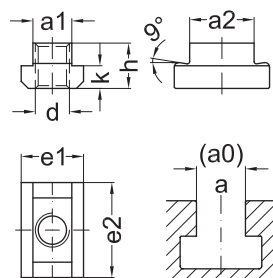
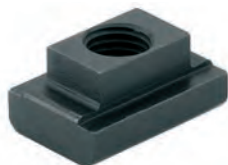


d	a	Part No.	a1	e	h	k	L	L2
M 6	8	503-0608-09-2	7,7	12	10	6	32	19
M 8	10	503-0810-09-2	9,7	15	12	6	33	19
	12	503-0812-09-2	11,7	18	14	7	39	
M10	12	503-1012-13-2	11,7	18	14	7	48	26
M12	14	503-1214-13-2	13,7	22	16	8	48	26
	16	503-1216-13-2	15,7	25	18	9	50	
	18	503-1218-13-2	17,7	28	20	10		
	14	503-1214-17-2	13,7	22	16	8	56	33
M14	16	503-1416-17-2	15,7	25	18	9	59	33
M16	18	503-1618-17-2	17,7	28	20	10	61	33
	20	503-1620-17-2	19,7	32	24	12	64	
	22	503-1622-17-2	21,7	35	28	14		
	18	503-1618-21-2	17,7	28	20	10	68	41
M18	20	503-1820-21-2	19,7	32	24	12	72	41
M20	22	503-2022-21-2	21,7	35	28	14	75	41
	22	503-2022-25-2					75	52
	22	503-2022-38-2					70	38
	24	503-2024-21-2	23,7	40	32	16	80	41
	28	503-2028-21-2	27,7	44	36	18	77	
M22	24	503-2224-25-2	23,7	40	32	16	80	52
M24	28	503-2428-25-2	27,7	44	36	18	88	52
		503-2428-38-2						45
		503-2428-45-2						45
	36	503-2436-25-2	35,6	54	44	22	94	52

Muttern · Special Design

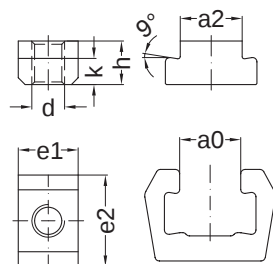
Product Class A DIN ISO 4759 Part 1

Riser T-Nuts 9°
Hardness class 10
for Serie MQ 110/ 130



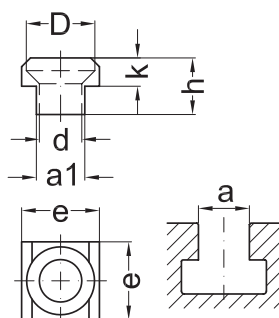
d	a	Part No.		a0	a1	a2	e1	e2	h	k
M 8	10	509-0810-24		24	10,7	23,6	15	35	12	6
M10	12	509-1012-24		24	11,7	23,6	18	35	14	7
M12	14	509-1214-24		24	13,7	23,6	22	35	16	8
M14	16	509-1416-28		28	15,7	27,6	25	41	18	9
M16	18	509-1618-28		28	17,7	27,6	28	41	20	10
M18	20	509-1820-34		34	19,7	33,6	32	49	24	12
M20	22	509-2022-34		34	21,7	33,6	35	49	25	14
M20	28	509-2028-34		34	27,7	33,6	44	49	31	18
M24	28	509-2428-34		34	27,7	33,6	44	49	31	18
M24	28	509-2428-42		42	27,7	41,6	44	61	31	18

Riser T-Nuts 9°
Hardness class 10
for Serie
MQ 60/ MQ 70/ MQ 100



d	a	Part No.		a0	a2	e1	e2	h	k
M 8	–	509-0820		20	19,6	20	30	20	10
M10	–	509-1020		20	19,6	20	30	20	10
M12	–	509-1220		20	19,6	20	30	20	10
M10	–	509-1024		24	23,6	22	35	20	13
M12	–	509-1224		24	23,6	22	35	20	13
M14	–	509-1428		28	27,6	28	41	25	16
M16	–	509-1628		28	27,6	28	41	25	16
M20	–	509-2034		34	33,6	35	49	30	19
M24	–	509-2442		42	41,6	44	61	31	18

Nuts
Hardness class 10
for B50



d	a	Part No.		a1	e	h	k	D
M10	12	501-1012		11,7	18	14	7	16
M12	14	501-1214		13,7	22	16	8	19
M14	16	501-1416		15,7	25	18	9	23
M16	18	501-1618		17,7	28	20	10	23
M18	20	501-1820		19,7	32	24	12	30
M20	22	501-2022		21,7	35	28	14	30
M22	24	501-2224		23,7	40	32	16	36
M24	28	501-2428		27,7	44	36	18	36

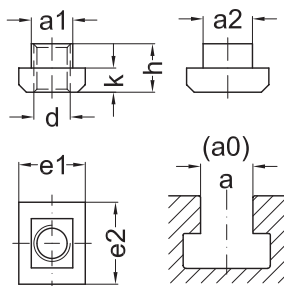


T-Nuts · Special Design

Product Class A DIN ISO 4759 Part 1

Double T-Nuts for two T-Slots

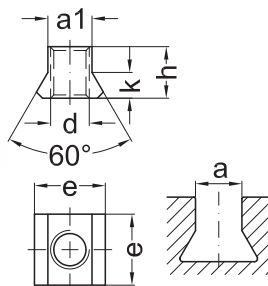
Hardness class 10



d	a	Part No.	a0	a1	a2	e1	e2	h	k
M10	12	502-1012-14	14	11,7	13,7	18	22	14	7
M12	14	502-1214-16	16	13,7	15,7	22	25	16	8
		502-1214-18	18		17,7		28		
		502-1214-20	20		19,7		32		
		502-1214-22	22		21,7		35		
M14	16	502-1416-18	18	15,7	17,7	22	28	18	9
M16	18	502-1618-20	20	17,7	19,7	28	32	20	10
		502-1618-22	22		21,7		35		
		502-1618-24	24		23,7		40		
		502-1618-28	28		27,7		44		
M18	20	502-1820-22	22	19,7	21,7	32	35	24	12
M20	22	502-2022-24	24	19,7	23,7	35	40	28	14
		502-2022-28	28		27,7		44		
M24	28	502-2428-32	32	27,7	31,6	44	50	36	18
		502-2428-36	36		35,6		54		

V-Nuts 60°

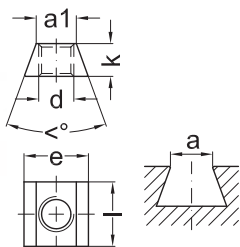
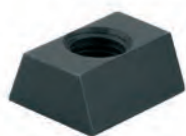
Hardness class 10



d	a	Part No.	a1	e	h	k	✂
M12	14	506-1214	13,7	22	16	8	60
	16	506-1216	15,7	25	18	9	
M14	16	506-1416	15,7	25	18	9	60
M16	18	506-1618	17,7	28	20	10	60
	20	506-1620	19,7	32	24	12	
M18	20	506-1820	19,7	32	24	12	60
M20	22	506-2022	21,7	35	28	14	60
	24	506-2024	23,7	40	32	16	
M24	28	506-2428	27,7	44	36	18	60

V-Nuts 40°

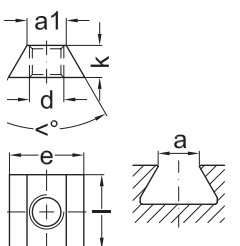
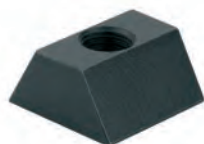
Hardness class 10



d	a	Part No.	a1	e	l	k	✂
M12	15	500-1215.4	15,4	25	25	15	40
	18	500-1218.4	18,4				
M16	18	500-1618.4	18,4	29	35	15	40
M20	22	500-2022.4	22,4	35	40	20	40

V-Nuts 60°

Hardness class 10



d	a	Part No.	a1	e	l	k	✂
M12	14	507-1214	14,4	30	25	15	60
M14	16	507-1416	16,4	30	30	15	60
M16	18	507-1618	18,4	40	40	20	60
M20	22	507-2022	22,4	50	40	25	60
M24	28	507-2428	28,4	60	45	30	60

Bolt Sets

Bolt Sets for T-Slots In wooden box



Part No.		400-1214	400-1416	400-1618	400-1820	400-2022	400-2428
Thread / T-Slot width (d x a)		M12 a 14	M14 a 16	M16 a 18	M18 a 20	M20 a 22	M24 a 28
Pcs x Length		Pcs. x L	Pcs. x L	Pcs. x L	Pcs. x L	Pcs. x L	Pcs. x L
T-Slot Bolts	DIN 787	4 x 050	4 x 063	4 x 080	4 x 125	4 x 100	4 x 100
		4 x 080	4 x 100	4 x 125	4 x 160	4 x 160	4 x 160
		4 x 125	4 x 160	4 x 160	4 x 200	4 x 200	4 x 290
		4 x 180	4 x 190	4 x 200	4 x 265	4 x 280	–
Stud Bolts	DIN 6379	4 x 100	4 x 100	4 x 100	4 x 125	4 x 125	4 x 160
		4 x 150	4 x 160	4 x 160	4 x 170	4 x 180	4 x 224
		4 x 200	4 x 200	4 x 200	4 x 212	4 x 224	4 x 315
		4 x 265	4 x 265	4 x 280	4 x 280	4 x 280	4 x 400
Washers	DIN 6340	4	4	4	4	4	4
Collar Nuts	DIN 6331	4	4	4	4	4	4
Extension Nuts	DIN 6334	4	4	4	4	4	4
T-Nuts	DIN 508	4	4	4	4	4	4
T-Nuts Long	DIN 508L	2	2	2	2	2	2
Spherical Seat Washers C with Dished Washers G	DIN 6319	2	2	2	2	2	2
Bolt Grease		1	1	1	1	1	1
/ Set							

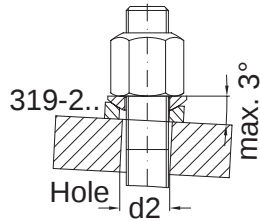
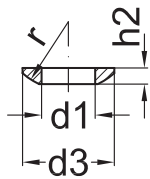


Washers

Product Class A DIN ISO 4759 Part 1

Spherical Seat Washers DIN 6319 Shape C

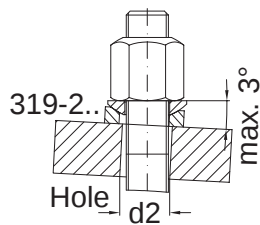
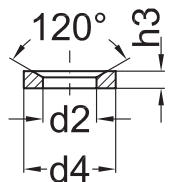
Hardened 550 + 100 HV10



d	Part No.		d1	d3	h2	r
M06	319-106		6,4	12	2,3	9
M08	319-108		8,4	17	3,2	12
M10	319-110		10,5	21	4,0	15
M12	319-112		13,0	24	4,6	17
M14	319-114		15,0	28	5,0	22
M16	319-116		17,0	30	5,3	22
M20	319-120		21,0	36	6,3	27
M24	319-124		25,0	44	8,2	32
M30	319-130		31,0	56	11,2	41

Dished Washers DIN 6319 Shape D

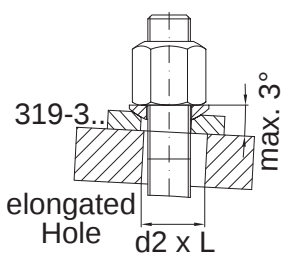
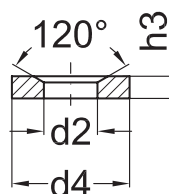
Hardened 550 + 100 HV10



d	Part No.		d2	d4	h3
M06	319-206		7,1	12	2,8
M08	319-208		9,6	17	3,5
M10	319-210		12,0	21	4,2
M12	319-212		14,2	24	5,0
M14	319-214		16,5	28	5,6
M16	319-216		19,0	30	6,2
M20	319-220		23,2	36	7,5
M24	319-224		28,0	44	9,5
M30	319-230		35,0	56	12,0

Dished Washers DIN 6319 Shape G

Tempered 350 + 80 HV30



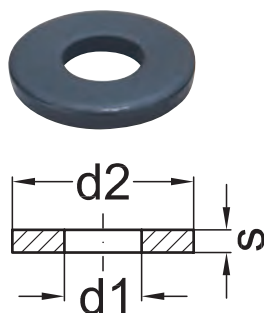
d	Part No.		d2	d4	h3
M06	319-306		7,1	17	4,0
M08	319-308		9,6	24	5,0
M10	319-310		12,0	30	5,0
M12	319-312		14,2	36	6,0
M14	319-314		16,5	40	6,0
M16	319-316		19,0	44	7,0
M20	319-320		23,2	50	8,0
M24	319-324		28,0	60	10,0
M30	319-330		35,0	68	12,0

Washers

Product Class A DIN ISO 4759 Part 1

Washers DIN 6340

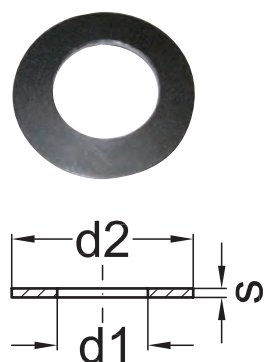
Tempered 350 + 80 HV30



d	Part No.		d1	d2	s
M06	340-06		6,4	17	3
M08	340-08		8,4	23	4
	340-081			18	2,5
M10	340-10		10,5	28	4
M12	340-12		13,0	35	5
	340-121			30	
M14	340-14		15,0	40	5
	340-141			32	
M16	340-16		17,0	45	6
	340-161			32	5
	340-162			40	
M18	340-18		19,0	45	6
	340-181			40	
M20	340-20		21,0	50	6
	340-201			40	5
M22	340-22		23,0	50	8
M24	340-24		25,0	60	8
	340-24-2			80	12
	340-24-3			100	25
M27	340-27		28,0	68	10
	340-27-2			100	25
M30	340-30		31,0	68	10

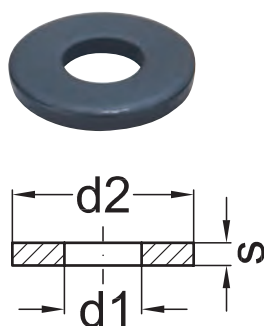
Washers

Hardness class 14.9



d	Part No.		d1	d2	s
M12	342-12		14,0	28,0	1,0
M14	342-14		16,0	31,5	1,2
M16	342-16		18,0	31,5	1,2
M18	342-18		20,0	40,0	1,5
M20	342-20		22,0	40,0	1,5
M22	342-22		24,0	45,0	1,7
M24	342-24		26,0	50,0	2,0
M30	342-30		30,5	60,0	3,5

Washers



d	Part No.		d1	d2	s
M10	344-10		10,5	18,0	1,6
M12	344-12		13,0	20,0	2,0
M14	344-14		15,0	24,0	2,5
M16	344-16		17,0	28,0	2,5
M20	344-20		21,0	32,0	4,0
M24	344-24		25,0	38,0	4,0

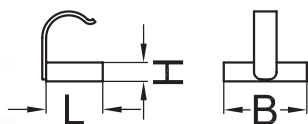


Workpiece Protection Plate

Used with MQ-Clamps, helps to protect the work piece surface, especially soft materials

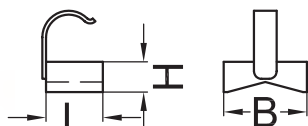
■ Material: Quality Steel and plastic for soft or delicate surfaces

Flat



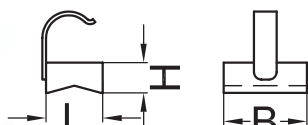
Sz.	Part No.		L	B	H
12	991-7012-1		15	22	5
16	991-7016-1		15	26	6
20	991-7020-1		20	32	7
24	991-7024-1		20	40	8

Prism-Longitudinal



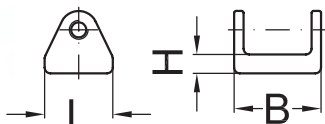
Sz.	Part No.		L	B	H
12	991-7012-2		15	20	12
16	991-7016-2		15	25	12
20	991-7020-2		20	30	16
24	991-7024-2		20	40	16

Prism-Crosswise



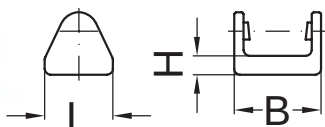
Sz.	Part No.		L	B	H
12	991-7012-3		15	22	12
16	991-7016-3		15	26	12
20	991-7020-3		20	32	16
24	991-7024-3		20	40	16

Flat



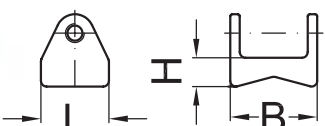
Threaded Pin					
Sz.	Part No.		L	B	H
8	991-150-08-1		15	19	5
12	991-150-12-1		18	23	5
16	991-150-16-1		20	27	6
20	991-150-20-1		22	32	7
24	991-150-24-1		24	40	8

Flat Plastic



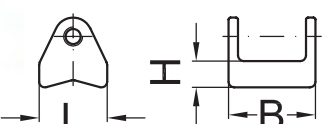
Sz.	Part No.		L	B	H
8	991-150-08-100		15	19	5
12	991-150-12-100		18	23	5
16	991-150-16-100		20	27	6
20	991-150-20-100		22	32	7

Prism-Longitudinal



Threaded Pin					
Sz.	Part No.		L	B	H
8	991-150-08-2		15	19	5
12	991-150-12-2		18	23	7
16	991-150-16-2		20	27	8
20	991-150-20-2		22	32	10
24	991-150-24-2		24	40	12

Prism-Crosswise



Threaded Pin					
Sz.	Part No.		L	B	H
8	991-150-08-3		15	19	5
12	991-150-12-3		18	23	7
16	991-150-16-3		20	27	8
20	991-150-20-3		22	32	10
24	991-150-24-3		24	40	12

Universal Machine Table for all Machines

Designs:

- With T-Slots DIN 650 and Tapped Holes
- With Tapped Holes
- With T-Slots DIN 650

All Machine Tables come with:

- Centering Hole
- Centered T-Slot
- Mounting Points

Machine Tables

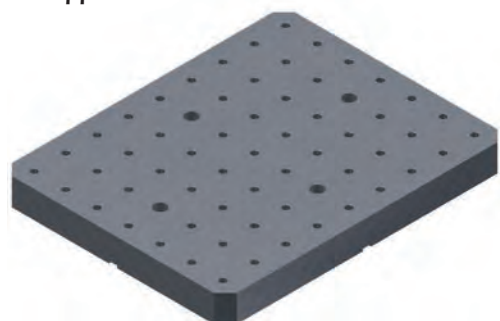
Combination machine table

850-... Steel
 851-... Cast Iron
 852-... Aluminium



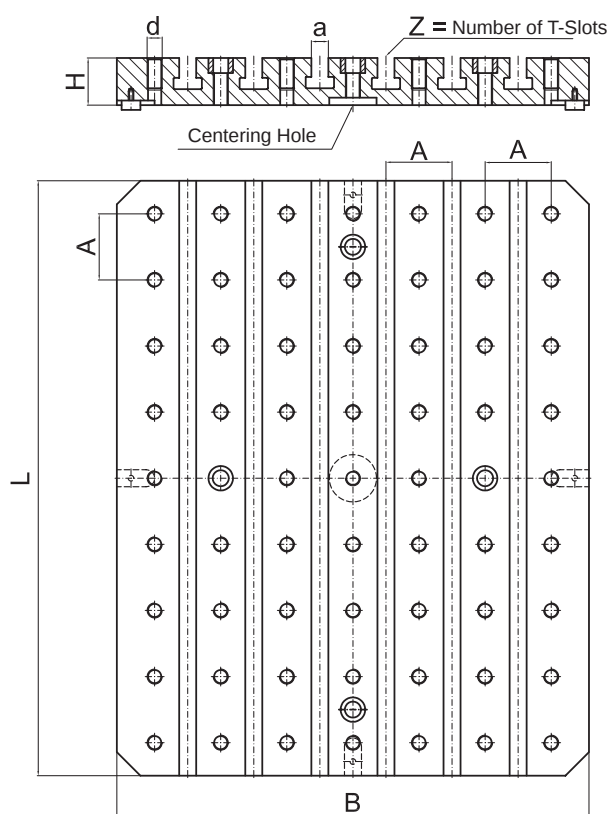
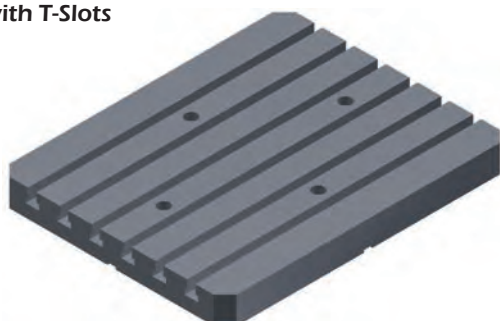
Machine Table with Tapped Holes

853-... Steel
 854-... Cast Iron
 855-... Aluminium



Machine Table with T-Slots

856-... Steel
 857-... Cast Iron
 858-... Aluminium



			Combination machine table		Machine Table with Tapped Holes		Machine Table with T-Slots						
Size	d	a	Part No.		Part No.		Part No.		B	L	H	A	Z
250-250	M 12	14	850-250-250-1214		853-250-250-1214		856-250-250-1214		250	250	40	50	4
250-320	M 12	14	850-250-320-1214		853-250-320-1214		856-250-320-1214		250	320		50	
320-320	M12	14	850-320-320-1214		853-320-320-1214		856-320-320-1214		320	320	40	50	4
	M16	18	850-320-320-1618		853-320-320-1618		856-320-320-1618				50	70	
320-400	M12	14	850-320-400-1214		853-320-400-1214		856-320-400-1214		320	400	40	50	4
	M16	18	850-320-400-1618		853-320-400-1618		856-320-400-1618				50	70	
400-400	M12	14	850-400-400-1214		853-400-400-1214		856-400-400-1214		400	400	40	50	6
	M16	18	850-400-400-1618		853-400-400-1618		856-400-400-1618				50	70	
400-500	M12	14	850-400-500-1214		853-400-500-1214		856-400-500-1214		400	500	50	50	6
	M16	18	850-400-500-1618		853-400-500-1618		856-400-500-1618					70	
500-500	M12	14	850-500-500-1214		853-500-500-1214		856-500-500-1214		500	500	50	70	6
	M16	18	850-500-500-1618		853-500-500-1618		856-500-500-1618						
500-630	M12	14	850-500-630-1214		853-500-630-1214		856-500-630-1214		500	630	50	70	6
	M16	18	850-500-630-1618		853-500-630-1618		856-500-630-1618				60		
630-630	M12	14	850-630-630-1214		853-630-630-1214		856-630-630-1214		630	630	60	70	8
	M16	18	850-630-630-1618		853-630-630-1618		856-630-630-1618						



Wrenches/ Allen Keys

Ball end Hexagonal Allen Key
Chrome-Vanadium Steel, hardened



s	Part No.		L1	L2
6	610-06		160	60
8	610-08		200	70
10	610-10		230	80
12	610-12		260	90
14	610-14		280	95
17	610-17		300	100

Hexagonal Allen Key with Cone
Chrome-Vanadium Steel, hardened



s	Part No.		L1	L2	d
4	611-04		140	25	2,5
5	611-05		160	28	3
6	611-06		180	32	4
8	611-08		200	36	5
10	611-10		224	40	6
12	611-12		250	45	7
14	611-14		280	55	8
17	611-17		320	63	10

Hexagonal Allen Key w/o Cone
Chrome-Vanadium Steel, hardened



s	Part No.		L1	L2
2	612-02		52	18
2,5	612-025		58	20
3	612-03		66	23
4	612-04		74	29
5	612-05		85	33
19	612-19		330	100

Torque Wrench ½ inch



Nm	Part No.		L
40-200	605-200-g		500
60-300	605-300-g		590



Torque Wrench ½ inch
Accuracy ± 4% ISO 6789 certified
Automatic reset wrench



Nm	Part No.		L
40-200	605-200-f		479
60-340	605-340-f		632

Wrenches/ Allen Keys

Adapter ½ inch
For torque wrench



s	Part No.		L
6	606-06		25
8	606-08		25
10	606-10		25
12	606-12		25
14	606-14		25

Combination Wrench
Chrome-plated, hardened steel



s	Part No.		L
13	620-13		160
14	620-14		170
16	620-16		180
17	620-17		190
18	620-18		200
19	620-19		210
20	620-20		250
21	620-21		260
22	620-22		260
24	620-24		280
27	620-27		300
30	620-30		330
32	620-32		400
34	620-34		450
36	620-36		460
46	620-46		500

Double Open-Ended Wrench
Hardened steel



s	Part No.		s1	L
16	622-1618		18	160
18	622-1821		21	190
19	622-1924		24	215
24	622-2427		27	245
27	622-2730		30	270

Ratchet Combination Wrench
Chrome-plated, hardened steel



s	Part No.		L
13	623-13		185
14	623-14		190
16	623-16		210
17	623-17		225
18	623-18		235
19	623-19		250



Technical Data for mechanical Clamps

Safety Instructions:

When used on vertical machine tables
(injection moulding machines, tilt and turn tables)
please note the Friction Force $F_r = \mu \times F_{sp}$.
 F_{sp} = Clamping Force, μ = Friction-Force
(steel on steel $\mu = 0,2$).

Multi-Quick MQ 60 – MQ 200



Numbers are based on average clamping heights
Recommended Torques (friction = 0.14)

	MQ60–65				MQ 60S		MQ 70		MQ 100		MQ 100S		MQ 106		MQ 110		MQ 130		MQ 134		MQ 150		MQ 160		MQ 200	
Series	Countersunk Screw	Torque Countersunk Screw	Torque Ball Pressure Screw	Holding Force max. F2	Torque Ball Pressure Screw	Holding Force max. F2	Torque Ball Pressure Screw	Holding Force max. F2	Torque Ball Pressure Screw	Holding Force max. F2	Torque Ball Pressure Screw	Holding Force max. F2	Torque Ball Pressure Screw	Holding Force max. F2	Torque Ball Pressure Screw	Holding Force max. F2	Torque Ball Pressure Screw	Holding Force max. F2	Torque Ball Pressure Screw	Holding Force max. F2	Torque Ball Pressure Screw	Holding Force max. F2	Torque Ball Pressure Screw	Holding Force max. F2	Torque Ball Pressure Screw	Holding Force max. F2
Sz.	d	Mt Nm	Mt Nm	kN	Mt Nm	kN	Mt Nm	kN	Mt Nm	kN	Mt Nm	kN	Mt Nm	kN	Mt Nm	kN	Mt Nm	kN	Mt Nm	kN	Mt Nm	kN	Mt Nm	kN	Mt Nm	kN
8	M06	30	35	24	–	–	–	–	40	22	–	–	–	–	–	–	–	–	40	20	–	–	–	–	–	–
8	M08	35	45	24	–	–	–	–	40	22	–	–	–	–	–	–	–	–	40	20	–	–	–	–	–	–
8	M10	35	50	24	–	–	–	–	50	22	–	–	–	–	–	–	–	–	50	20	–	–	–	–	–	–
8	M12	40	50	24	–	–	–	–	50	22	–	–	–	–	–	–	–	–	50	20	–	–	–	–	–	–
12	M10	40	60	40	–	–	80	20	80	30	–	–	80	32	60	25	60	20	80	20	80	30	80	30	80	32
12	M12	70	70	40	100	45	100	20	100	30	100	40	100	32	70	25	70	20	100	25	100	30	100	30	100	32
16	M14	100	100	55	–	–	120	30	120	40	–	–	120	43	100	35	100	30	120	30	120	40	120	40	120	43
16	M16	150	120	55	160	60	150	30	150	40	160	50	150	43	120	35	120	30	150	35	150	40	150	40	150	43
20	M18	160	160	70	–	–	160	40	160	45	–	–	160	50	140	40	140	35	160	35	–	–	–	–	160	50
20	M20	200	180	70	200	70	200	40	200	45	200	60	200	50	180	40	180	35	200	40	–	–	–	–	200	50
24	M22	220	220	80	–	–	220	50	220	55	–	–	220	60	–	–	–	–	–	–	–	–	–	–	220	60
24	M24	280	280	80	280	85	280	50	300	55	280	70	300	60	–	–	–	–	–	–	–	–	–	–	300	60
24	M30	280	280	80	300	100	280	50	300	55	300	90	300	60	–	–	–	–	–	–	–	–	–	–	–	–
30	M30	280	–	–	300	100	–	–	–	–	340	90	–	–	–	–	–	–	–	–	–	–	–	–	–	–
30	M36	280	–	–	300	100	–	–	–	–	340	90	–	–	–	–	–	–	–	–	–	–	–	–	–	–

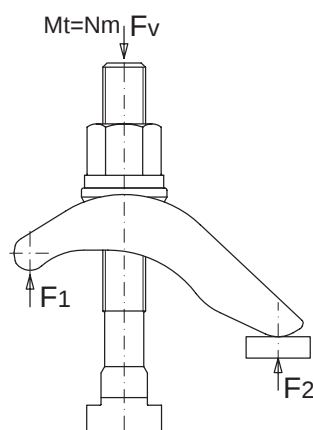
Example:

Clamping Force $F_{sp} = 50 \text{ kN}$, Friction-Force $= 0,2 \times 50 \text{ kN} = 10 \text{ kN}$ per Clamp.

A workpiece of $10 \text{ kN} = 1 \text{ ton}$ can be clamped on a vertical machine table with a Clamping Force F_{sp} of 50 kN .

Technical Data for mechanical Clamps

Clamping Frames S10 – S45



Numbers are based on average clamping heights and the centered position within the grooves of the frame S30–S45 only

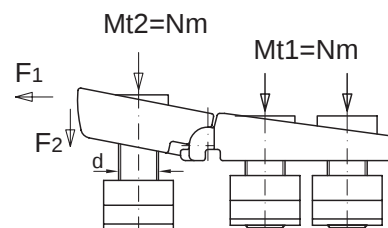
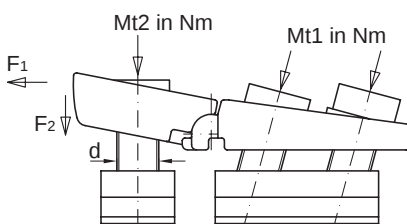
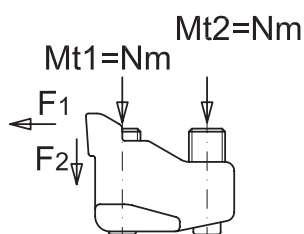
Recommended Torques (friction = 0.14)

Clamping Frames S10–S20						Clamping Frames S30–S45									
Clamping height:		0–45	10–70	30–110	90–180	Clamping height:		0–45	10–70	10–80	30–110	40–120	60–160	90–180	130–260
Countersunk Screw	Torque Countersunk Screw	Holding Force max. F1	Holding Force max. F1	Holding Force max. F1	Holding Force max. F1	Countersunk Screw	Torque Countersunk Screw	Holding Force max. F1	Holding Force max. F1	Holding Force max. F1	Holding Force max. F1	Holding Force max. F1	Holding Force max. F1	Holding Force max. F1	Holding Force max. F1
d	Mt Nm	kN	kN	kN	kN	d	Mt Nm	kN	kN	kN	kN	kN	kN	kN	kN
M08	30	12	–	–	–	M08	25	12	–	–	–	–	–	–	–
M10	60	18	18	18	–	M10	50	15	18	–	18	–	–	–	–
M12	100	20	20	22	25	M12	90	15	18	–	20	–	–	25	–
M14	150	30	32	35	35	M14	130	25	25	–	30	–	–	35	35
M16	220	30	32	35	40	M16	200	25	25	35	30	–	–	35	35
M18	300	–	45	50	50	M18	300	–	35	50	50	–	–	50	35
M20	400	–	45	50	50	M20	400	–	40	50	50	50	50	50	50
M22	500	–	–	60	60	M22	500	–	–	55	50	60	60	50	50
M24	700	–	–	60	70	M24	700	–	–	55	60	60	60	60	60
M30	700	–	–	60	70	M30	700	–	–	55	60	70	70	60	60



Technical Data for mechanical Clamps

Side Clamps NU / FL



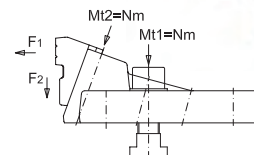
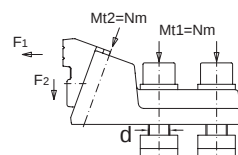
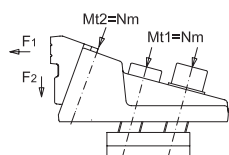
Serie: Side Clamps NU10						
Recommended Torques (friction = 0.14)						
	Countersunk Screw	T-Slot Width	Torque Countersunk Screw	Torque Countersunk Screw	Holding Force max.	Holding Force max.
Part. No.	d	a	Mt1 Nm	Mt2 Nm	F1 kN	F2 kN
002-0810	M06	10,0	4,0	2,0	5,0	2,5
002-1012	M08	12,0	10,0	5,0	6,0	3,0
002-1214	M10	14,0	18,0	9,0	7,0	3,5
002-1416	M12	16,0	32,0	15,0	8,0	4,0
002-1618	M12	18,0	32,0	15,0	10,0	5,0
002-2022	M16	22,0	75,0	35,0	16,0	8,0
002-2428	M20	28,0	135,0	65,0	18,0	9,0

Serie: Side Clamps FL10					
Recommended Torques (friction = 0.14)					
	Countersunk Screw	Torque Countersunk Screw	Torque Countersunk Screw	Holding Force max.	Holding Force max.
Part. No.	d	Mt1 Nm	Mt2 Nm	F1 kN	F2 kN
004-09-0608	M06	8,0	7,0	4,0	2,0
004-09-0810	M08	20,0	16,0	7,0	3,5
004-09-0812	M08	20,0	16,0	7,0	3,5
004-13-0810	M08	20,0	16,0	7,0	3,5
004-13-1012	M10	35,0	28,0	10,0	5,0
004-13-1214	M12	65,0	52,0	15,0	7,5
004-13-1216	M12	65,0	52,0	15,0	7,5
004-17-1214	M12	65,0	52,0	15,0	7,5
004-17-1416	M14	100,0	80,0	20,0	10,0
004-17-1618	M16	150,0	120,0	25,0	12,5
004-17-1620	M16	150,0	120,0	25,0	12,5
004-21-1618	M16	150,0	120,0	25,0	12,5
004-21-1820	M18	210,0	170,0	30,0	15,0
004-21-2022	M20	300,0	240,0	36,0	18,0
004-21-2024	M20	300,0	240,0	36,0	18,0
004-21-2028	M20	300,0	240,0	36,0	18,0



Technical Data for mechanical Clamps

Side Clamps SK / SKQ



Serie: Side Clamps SK10 / SKQ10
Recommended Torques (friction = 0.14)

	Countersunk Screw	Torque Countersunk Screw	Torque Driving Ring	Holding Force max.	Holding Force max.
Part. No.	d	Mt1 Nm	Mt2 Nm	F1 kN	F2 kN
...-013--0810	M08	30	30	10,0	5,0
...-013--1012	M10	50	40	15,0	7,5
...-013--1214	M12	100	60	20,0	10,0
...-013--1216	M12	100	60	20,0	10,0
...-017--1214	M12	100	60	20,0	10,0
...-017--1416	M14	150	100	23,0	11,5
...-017--1618	M16	200	120	25,0	12,5
...-017--1620	M16	200	120	25,0	12,5
...-017--1622	M16	200	120	25,0	12,5

	Countersunk Screw	Torque Countersunk Screw	Torque Driving Ring	Holding Force max.	Holding Force max.
Part. No.	d	Mt1 Nm	Mt2 Nm	F1 kN	F2 kN
...-021--1618	M16	200	120	25,0	12,5
...-021--1820	M18	280	160	35,0	17,5
...-021--2022	M20	400	200	40,0	20,0
...-021--2024	M20	400	200	40,0	20,0
...-021--2028	M20	400	200	40,0	20,0
...-025--2022	M20	400	200	40,0	20,0
...-025--2224	M22	500	250	60,0	30,0
...-025--2428	M24	600	300	65,0	32,0
...-025--2436	M24	600	300	65,0	32,0

Self Centering Clamps



Serie: Self Centering Clamps
Recommended Torques (friction = 0.14)

	Countersunk Screw	Torque Countersunk Screw	Torque Driving Ring	Holding Force max.
Part. No.	d	Mt1 Nm	Mt2 Nm	F1 kN
860-050-...-1012	M10	45,0	100,0	20,0
860-050-...-1214	M12	80,0	100,0	20,0
860-050-...-1216	M12	80,0	100,0	20,0
860-080-...-1214	M12	80,0	140,0	25,0
860-080-...-1416	M14	125,0	140,0	25,0
860-080-...-1618	M16	160,0	140,0	25,0
860-080-...-1620	M16	160,0	140,0	25,0



Notes



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☐ **Sample on a free trial basis**
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4				
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