

Yale

TIGRIP®



TIGRIP
Mod. TBL 1,5 plus Bj. '13
Ser. No. siehe Seitenplatte
Tragt./WLL see side plate
Greifb./Jaw Cap. 1,5 t
Eigengew./Weight 0-20 mm
3,0 kg
CE COLUMBUS MCKINNON
Ind. Products GmbH
42549 Velpert/Germany
Bedienungsanleitung beachten!
Use Operating Instructions!

W-L-L
100kg
150

Tigrip® Load Hoisting Tackle

Lifting clamps and attachments have a reputation for reliability, quality and safety going back more than 35 years. For transportation and handling of loads with a hoist the Tigrip® programme offers the optimum connection between hook and load for almost any application.

Tigrip® Crane Weighers

Also renowned for many years are our precise crane weighers. Wherever weight has to be measured or forces have to be assessed the reliable and robust units can be used. Areas of application are practically unlimited.

TIGRIP® - your first choice!

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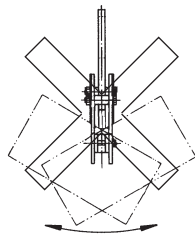
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INFO

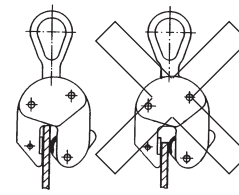
Please note our user instructions at the beginning of each chapter.

Application advice

- Load hoisting tackle must always be in perfect condition and provided with a legible identity plate.
- Prior to initial operation and every time before work, the tackle is to be visually inspected for obvious deficiencies!
- The suspension eye must have sufficient space in the load hook and move freely. A safety latch to prevent accidental out-hooking of the tackle must be available!
- Do not lift or transport loads while personnel are in the danger zone and do not allow people to pass under a suspended load. Note: a safe form-fit attachment requires sufficient hardness of the load. Ensure that the load or parts thereof cannot slip and fall down!
- The load hoisting tackle must be positioned over the gravity centre of the load, so that a swinging movement is avoided.
- If longer sheets of metal or profiles are to be transported, we recommend using two clamps to prevent load swinging. The clamps can be used in combination with a spreader beam or with double strand chain slings and clamps with hinged hook ring (e.g. model TBS). Observe the maximum angle from the vertical and possible capacity restrictions.
- Clamps without hinged hook ring must not be loaded laterally! (Slanted attachment of the clamp onto the steel plate in pulling direction of the clamp is normally not permitted, as the jaws would grip too close to the edge of the plate. Thus a correct fit of the clamp on the plate is not assured!)



- Always insert the load fully into the mouth of the clamp and make sure that the housing has contact on either side of the plate.
- Clamps designed for the transport of steel plate in vertical position may only accept one single plate at a time. The clamping effect must be assured on either side of the load!
- Special clamps are available for the transport of steel plate in horizontal position which allows handling of several plates at a time.
- A load must not be suspended or left unattended in raised or tensioned condition for a longer period of time.
- When attaching the clamp, the operator must ensure that neither the clamp, slings or load pose a danger to himself or other personnel.
- The operator may not move the load until he is convinced that the load is correctly attached and all personnel are outside the danger zone.
- Please take note of possible capacity restrictions depending on the pivoting range resp. pulling direction of the clamp. (Note: Not all clamp types on the market are designed for a pivoting range of 180° – strictly observe the operating instructions!)
- In case of malfunction stop using the load hoisting tackle immediately.



INFO

Due to the limitations of space in this catalogue we could not respond to all applications. Please contact us for further information!



Maintenance and repair

- To ensure safe operation, all load hoisting tackle must be subjected to regular inspections according to the maintenance instructions given by the manufacturer.
- Load hoisting tackle which are due for maintenance (normally once per year, unless adverse working conditions dictate shorter periods) or products with obvious defects may be returned to us for inspection and repair.
- Inspections and tests must be performed by competent persons or specialist workshops that use original spare parts.

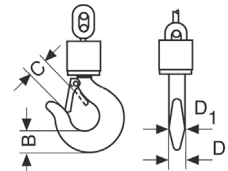
Inspections

- Inspections are visual and functional and shall establish that the load hoisting tackle is safe and has not been damaged by incorrect transport or storage. In addition check for damage, wear, corrosion and other deficiencies as well as completeness and function of safety devices. Inspections are instigated by the user.
- All load hoisting tackle has to be cleaned prior to inspection. The cleaning procedure must not cause chemical damages (e.g. no acid – embrittlement), no incorrect temperature stress by e.g. flame cleaning or possible concealment of cracks due to excessive material loss (sand blasting)! We shall be pleased to consult you in this respect. Please submit your load hoisting tackle for inspection in clean condition. This will reduce inspection costs considerably!

Criteria for disposal of load hoisting tackle

Load hoisting tackle must no longer be operated if e.g.:

- The identification (identity plate) is missing or illegible.
- Housing, components and suspension of the tackle present obvious deficiencies, e.g. cuts, grooves, cracks, excessive corrosion, staining due to heat, signs of subsequent welding resp. spatters (which cannot be easily removed) and leave stains.
- Ropes show breakages of wires resp. bruises (criteria for disposal of ropes are given in classification DIN 15020), damages to the rope sleeve and similar failures.
- The load chain presents twisted or distorted links or shows an elongation of 5% resp. undergoes the averaged nominal thickness of the link by more than 10%.
- The opening (C) of either suspension or load hook has increased/deformed by more than 10% of the nominal dimension or shows wear in the hook mouth (dimensions B resp. D) of more than 5%.
- If the inspection revealed that the tackle has been overloaded or deteriorated it can only be used again after careful inspection and repair – if necessary.



Technical questionnaire to identify the suitable TIGRIP® load hoisting tackle

Company: _____ Date: _____

Contact: _____ e-Mail: _____

Phone: _____ Fax: _____

Clamps and grabs

Information about the load:

What will be transported?

Weight min. _____ kg - max. _____ kg

Length min. _____ mm - max. _____ mm

Width min. _____ mm - max. _____ mm

Height min. _____ mm - max. _____ mm

External diameter min. _____ mm - max. _____ mm

Internal diameter min. _____ mm - max. _____ mm

Material Steel Concrete Wood Paper Others

Surface hardness for steel: _____ HRC

Surface condition Oiled Greasy Dry Scales Others

How should/may the load be grabbed/clamped:

Grabbed from underneath Jaws Protective lining Others

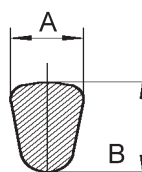
Information about the clamp/grab:

What kind of grab will be needed?

Type of crane hook or dimensions A - B

Model: _____ A = _____

B = _____



Other restrictions: _____

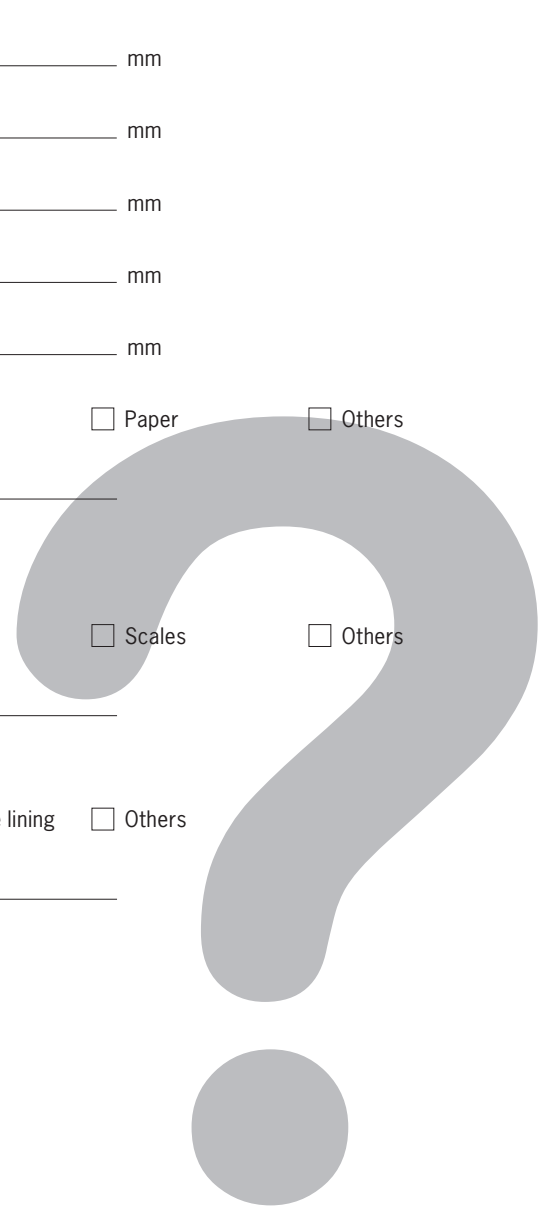




Plate clamp with safety lock model TBL/TBL plus

Capacity 500 - 3000 kg

This clamp is primarily used for transporting single steel plates in the vertical position, as well as lifting and turning through 180°. This clamp can also be used for transporting steel constructions and profiles. It is recommended to use a pair of plate clamps in conjunction with a spreader beam for large sized sheets and long materials which have a tendency to sag.

The jaw can be opened and closed with the locking lever (except for the TBL 0.5t which uses a positive spring-loaded cam). The safety lock overrides the spring-loaded cam, preventing the clamp from opening even when there is no load.

This plate clamp is service-friendly, making it easy to exchange parts, which are available individually or in kits. Clamp repair is available by the factory, or can be done by certified and experienced staff.

The TBL 0.5 is equipped with a safety lock (positive spring-loaded cam), but comes without locking lever.

INFO

The surface hardness of the material must not exceed HRC 30/Brinell 300.

The min. load is 10% of the nominal WLL. Except for model TBL 1,5 plus, the min. load here is 100 kg!

Technical data model TBL/TBL plus

Model	EAN-No. 4025092* 4053981**	Capacity kg	Jaw capacity Z mm	Weight kg
TBL 0,5	*550000	500	0 - 16	1.5
TBL 1,5 plus	**522265	1500	0 - 20	3.0
TBL 2,0 plus	**526232	2000	0 - 32	9.3
TBL 3,0 plus	**526249	3000	0 - 32	9.3

Dimensions model TBL/TBL plus

Model	TBL 0,5	TBL 1,5 plus	TBL 2,0 plus	TBL 3,0 plus
A, mm	99	126	192	192
B, mm	195	225	312	312
Ø C, mm	29	50	80	80
D, mm	33	49	75	75
E, mm	47	70	96	96
F, mm	50	82	100	100
G, mm	48	55	81	81
H, mm	11	12	20	20
I, mm	16	20	24	24

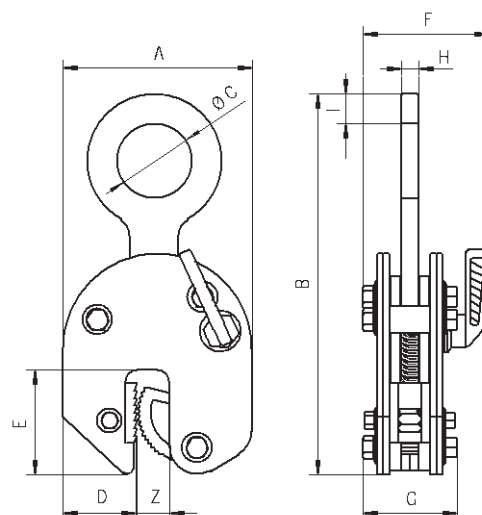


Plate clamp with safety lock model TBL

Capacity 4000 - 30000 kg

This clamp is primarily used for transporting single steel plates in the vertical position, as well as lifting and turning through 180°. This clamp can also be used for transporting steel constructions and profiles. It is recommended to use a pair of plate clamps in conjunction with a spreader beam for large sized sheets and long materials which have a tendency to sag.

These plate clamps have the same design and applications as the clamp model TBL with a capacity from 500 - 3000kg.

INFO

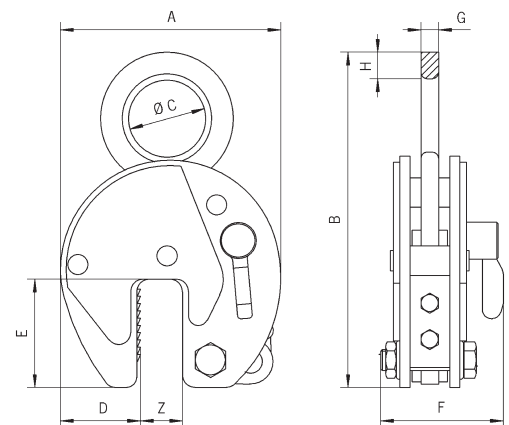
The surface hardness of the material must not exceed HRC 30/Brinell 300.

The min. load is 10% of the nominal WLL!



Technical data model TBL

Model	EANNo. 4025092*	Capacity kg	Jaw capacity Z mm	Weight kg
TBL 4,0 S	*556545	4000	0 - 32	11.2
TBL 4,0 L	*556569	4000	30 - 60	11.9
TBL 6,0 S	*557221	6000	0 - 50	20.6
TBL 6,0 L	*556583	6000	50 - 100	23.2
TBL 8,0 S	*557245	8000	0 - 50	24.2
TBL 8,0 L	*557269	8000	50 - 100	28.8
TBL 10,0 S	*557283	10000	0 - 50	29.5
TBL 10,0 L	*557306	10000	50 - 100	35.1
TBL 12,0 S	*557320	12000	0 - 50	52.1
TBL 12,0 L	*557344	12000	50 - 100	63.0
TBL 15,0 S	*552936	15000	0 - 50	76.0
TBL 15,0 L	*552943	15000	50 - 100	86.0
TBL 20,0 S	*552950	20000	0 - 65	123.0
TBL 20,0 L	*551892	20000	65 - 130	135.0
TBL 30,0 S	*552967	30000	0 - 65	195.0
TBL 30,0 L	*552974	30000	65 - 130	256.0



Dimensions model TBL

Model	TBL 4,0 S	TBL 4,0 L	TBL 6,0 S	TBL 6,0 L	TBL 8,0 S	TBL 8,0 L	TBL 10,0 S	TBL 10,0 L	TBL 12,0 S	TBL 12,0 L	TBL 15,0 S	TBL 15,0 L	TBL 20,0 S	TBL 20,0 L	TBL 30,0 S	TBL 30,0 L
A, mm	197	228	293	362	293	362	293	362	360	460	360	460	462	560	462	560
B, mm	339	339	442	482	450	482	503	503	550	615	550	615	674	724	667	732
Ø C, mm	80	80	89	89	89	89	110	110	130	130	130	130	130	130	60	60
D, mm	68	68	95	114	95	114	95	114	125	175	125	175	165	195	165	195
E, mm	93	100	143	143	143	143	143	143	162	162	162	162	210	210	210	210
F, mm	110	110	129	129	129	129	139	139	154	154	204	204	235	235	295	295
G, mm	20	20	20	20	20	20	25	25	30	30	45	45	45	45	65	65
H, mm	32	32	35	35	42	42	45	45	55	55	55	55	65	65	66	67



Plate clamp with hinged hook ring and safety lock model TBS plus

Capacity 1000 - 3000 kg

The TBS plate clamp with hinged hook ring can be used for the safe handling of plates at various angles. It can lift plates from the horizontal and put down in the vertical or alternatively lift it over the edge by gripping it from the side. The hinged hook ring ensures adequate clamping force in every position. Depending on the angle of usage capacity restrictions have to be taken into account, as shown in the diagram below.

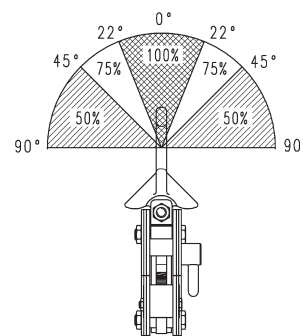
The hinged hook ring has the added advantage of providing enough clamping force to hold a plate safely. Even when transporting large-sized plates with the 2-legged lifting system slipping of the load and damage to the clamp is avoided.

In addition to transporting plates, this clamp is suitable for turning steel structures and welded constructions.

INFO

The surface hardness of the material must not exceed HRC 30/Brinell 300.

The min. load is 10% of the nominal WLL!

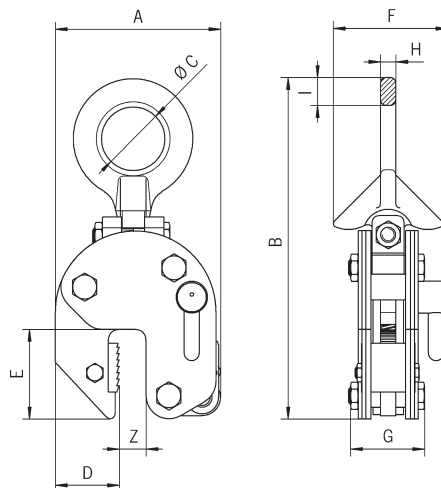


Technical data model TBS plus

Model	EAN-No. 4053981**	Capacity kg	Jaw capacity Z mm	Weight kg
TBS 1,0 plus	**526157	1000	0 - 20	4.6
TBS 2,0 plus	**526195	2000	0 - 32	14.3
TBS 3,0 plus	**526201	3000	0 - 32	14.3

Dimensions model TBS plus

Model	TBS 1,0 plus	TBS 2,0 plus	TBS 3,0 plus
A, mm	126	192	192
B, mm	270	382	382
Ø C, mm	50	80	80
D, mm	49	75	75
E, mm	70	96	96
F, mm	95	132	132
G, mm	63	92	92
H, mm	12	20	20
I, mm	23	30	30



**Plate clamp
with pivoting shackle and
safety lock
model TBS**

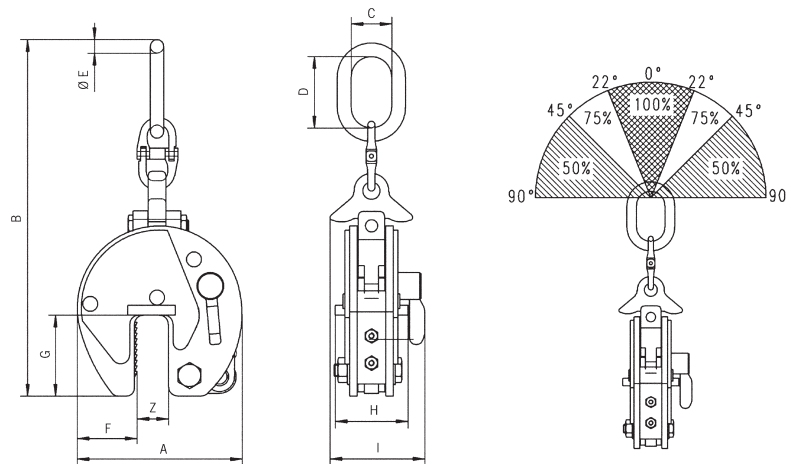
Capacity 4500 - 10000kg



INFO

The surface hardness of the material must not exceed HRC 30/Brinell 300.

The min. load is 10% of the nominal WLL!



Technical data model TBS

Model	EAN-No. 4025092*	Capacity kg	Jaw capacity Z mm	Weight kg
TBS 4,5	*550352	4500	0 - 50	34.4
TBS 6,0 S	*550383	6000	0 - 50	38.0
TBS 6,0 L	*551250	6000	50 - 100	42.0
TBS 8,0 S	*552578	8000	0 - 50	39.0
TBS 8,0 L	*557528	8000	50 - 100	42.4
TBS 10,0 S	*552516	10000	0 - 50	68.0
TBS 10,0 L	*557542	10000	50 - 100	80.0

Dimensions model TBS

Model	TBS 4,5	TBS 6,0 S	TBS 6,0 L	TBS 8,0 S	TBS 8,0 L	TBS 10,0 S	TBS 10,0 L
A, mm	292	292	367	292	367	360	446
B, mm	675	737	785	737	785	903	921
C, mm	90	95	98	98	98	110	112
D, mm	180	176	180	176	180	195	195
Ø E, mm	27.8	27.8	27.8	27.8	27.8	33	33
F, mm	95	95	115	95	115	125	168
G, mm	143	143	143	143	143	162	162
H, mm	135	137	135	136	136	170	170
I, mm	185	188	188	210	210	223	223

Universal grab model TAG

Capacity 350 - 10000 kg

- with modified side plates model TWG

Capacity 350 - 2000 kg

The universal grabs TAG and TWG save time, as it does not require chains, cables etc. when hoisting and loading material. The large jaw capacity allows to tackle a variety of sizes with only one clamp. It can be used for loading machine tools, lifting steel constructions, welding and assembly jobs as well as for concrete and prefabricated pieces.

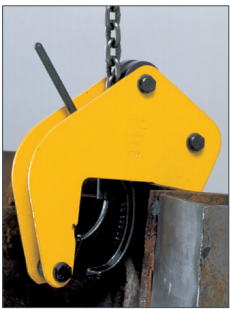
The universal grab with a small outside measurement is a specially designed grab for use on hard to reach places (e.g. lathe machine).

Features

- The automatic clamping force is retained by a positive tension spring, even if there is slack in the chain.
- The "Quick-Open" type universal grab opens by lifting and simultaneously pulling the lever out against the tension spring. The jaw is closed by the spring.
- Universal grabs up to 2.0t capacity are equipped with round chains, clamps with increased capacities are delivered with roller chains.

Option

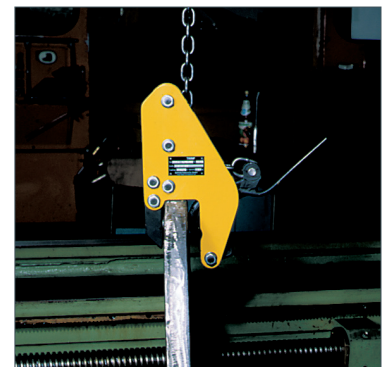
- Model TAG up to 1.25t WLL is available with protective lining on the clamping jaws on request. This results in a decrease of the jaw capacity by 10mm.



INFO

The surface hardness of the material must not exceed HRC 30/Brinell 300.

The min. load is 10% of the nominal WLL!



Model TWG with modified side plates for use in confined spaces (e.g. lathe machine).

Technical data model TAG

Model	EAN-No. 4025092*	Capacity kg	Jaw width mm	Jaw capacity mm	Weight kg
TAG 0,35/100	*550413	350	100	0 - 100	8.7
TAG 0,35/200	*551724	350	200	90 - 200	16.3
TAG 0,75/100	*550253	750	100	0 - 100	8.6
TAG 0,75/200	*552806	750	200	90 - 200	16.6
TAG 1,25/100	*550468	1250	100	0 - 100	14.9
TAG 1,25/200	*551502	1250	200	90 - 200	24.3
TAG 2,0/100	*550642	2000	100	0 - 100	20.8
TAG 2,0/200	*551366	2000	200	90 - 200	29.1
TAG 3,0/90	*550840	3000	90	5 - 90	26.5
TAG 5,0/90	*550345	5000	90	5 - 90	30.5
TAG 5,0/170	*551915	5000	170	80 - 170	43.8
TAG 10,0/100	*552059	10000	100	0 - 100	70.0
TAG 10,0/200	*553001	10000	200	100 - 200	105.0

Technical data model TWG

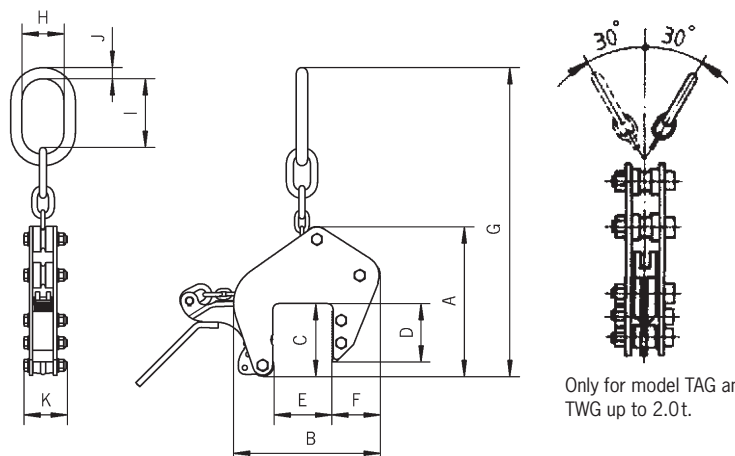
Model	EAN-No. 4025092* 4053981**	Capacity kg	Jaw width mm	Jaw capacity mm	Weight kg
TWG 0,35/100	*558952	350	100	30 - 100	11.0
TWG 0,75/100	*558969	750	100	30 - 100	11.0
TWG 1,25/100	*558976	1250	100	30 - 100	16.0
TWG 1,25/200	**926445	1250	200	100 - 200	23.0
TWG 2,0/100	-	2000	100	30 - 100	23.0

Dimensions model TAG

Model	TAG 0,35/100	TAG 0,35/200	TAG 0,75/100	TAG 0,75/200	TAG 1,25/100	TAG 1,25/200	TAG 2,0/100	TAG 2,0/200	TAG 3,0/90	TAG 5,0/90	TAG 5,0/170	TAG 10,0/100	TAG 10,0/200
A, mm	264	382	264	382	320	382	328	375	297	297	354	405	440
B, mm	259	434	259	434	289	434	415	515	290	290	423	423	562
C, mm	128	195	128	195	128	195	135	195	136	136	180	160	200
D, mm	100	156	100	156	100	156	115	165	106	106	155	130	175
E, mm	100	200	100	200	100	200	100	200	90	90	170	100	200
F, mm	85	120	85	120	85	120	105	160	91	91	118	160	183
G, mm	550	760	550	760	570	760	571	750	570	570	620	720	840
H, mm	75	75	75	75	75	75	75	75	82	82	82	102	102
I, mm	121	121	121	121	121	121	121	121	111	111	111	144	144
J, mm	20	20	20	20	20	20	20	20	32	32	32	40	40
K, mm	78	90	83	90	83	90	105	105	137	147	147	208	208

Dimensions model TWG

Model	TWG 0,35/100	TWG 0,75/100	TWG 1,25/100	TWG 1,25/200	TWG 2,0/100
A, mm	264	264	320	382	328
B, mm	209	209	255	374	383
C, mm	129	128	128	195	135
D, mm	100	100	100	156	115
E, mm	100	100	100	200	100
F, mm	35	35	51	60	73
G, mm	550	550	570	760	571
H, mm	75	75	75	75	75
I, mm	121	121	121	121	121
J, mm	20	20	20	20	20
K, mm	78	83	83	90	105



Only for model TAG and TWG up to 2.0t.



Permanent load lifting magnets model TPM

Capacity

100 - 3000kg (Flat material),

50 - 1500kg (Round material)

TPM load lifting magnets are ideal tools for easy, quick and thus economical transport of heavy objects made of ferromagnetic material. Typical operating areas are workshops and warehouses, loading and unloading of machines as well as construction of jigs and fixtures.

Compact design of the units for a large number of applications.

The load is not affected mechanically which allows lifting of flat as well as round material. The efficient magnet body provides strong lifting capacity at low dead weight. The permanent magnets do not require electric energy and will leave only minor residual magnetism on the material after use.

The magnets are activated/deactivated easily by turning a locking lever. In activated condition the hand lever will be safely locked and thus prevent unintended demagnetising.

The selection of the appropriate magnet model should be made under consideration of the varying conditions of the contact surface, kind of material alloy and plate thickness/bar diameter (see table).

INFO

In order to achieve a maximum capacity, the contact surface should be bright and free from dirt, oil, grease, scale, corrosion, paint etc.



Technical data model TPM

Model	EAN-No. 4025092* 4053981**	Flat material capacity ¹ max. kg	Material thickness min. at max. capacity mm	Flat material length of material max. mm	Round material capacity ¹ max. kg	Round material diameter mm	Round material length of material max. mm	Test load kg	Weight kg
TPM 0,1	*558853	100	14	2000	50	40 - 300	2000	300	5.3
TPM 0,3	*558860	300	20	2500	150	60 - 300	2500	900	13.5
TPM 0,5	*558877	500	24	3000	250	60 - 400	3000	1500	27.5
TPM 0,8	*558884	800	34	3500	400	60 - 400	3500	2400	52.0
TPM 1,0	*558891	1000	40	3500	500	80 - 400	3500	3000	57.0
TPM 2,0	*190367	2000	55	3500	1000	100 - 400	3500	6000	125.0
TPM 3,0	**022628	3000	65	3500	1500	200 - 500	3500	9000	195.0

¹ Measured on bright drawn material St 37

Dimensions model TPM

Model	TPM 0,1	TPM 0,3	TPM 0,5	TPM 0,8	TPM 1,0	TPM 2,0	TPM 3,0
A, mm	122	192	232	302	332	392	497
B, mm	69	95	120	154	154	196	220
C, mm	185	225	270	320	320	420	453
D, mm	160	250	250	450	450	450	600

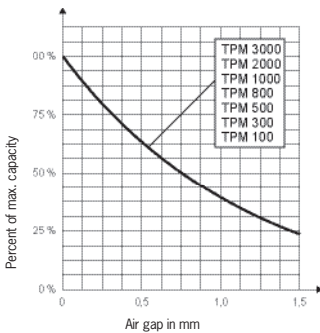


Diagram: WLL/air gap

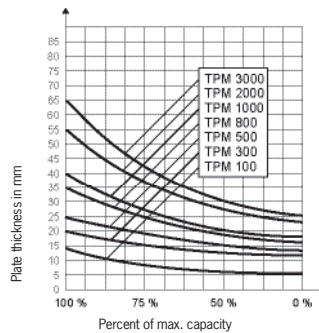
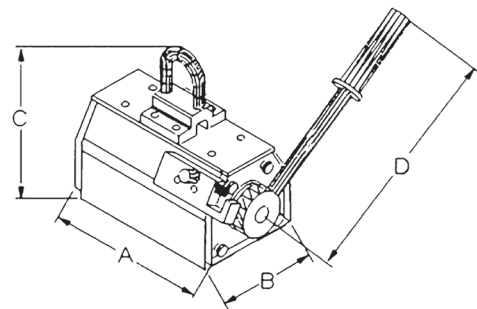
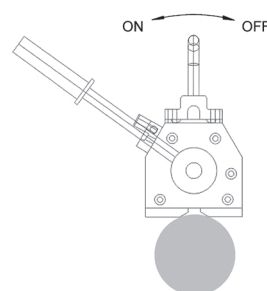
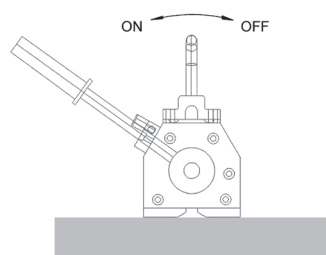


Diagram: WLL/material thickness



Model TPM



Correct use On/Off

Reduction of capacity	% of capacity
Temperature ≤ 60°C	100%
Humidity ≤ 80%	100%
St 52	95%
Alloy steel	80%
High carbon steel	70%
Cast iron	45%
Nickel	45%
Austenitic, stainless steel	0%
Brass	0%
Aluminium	0%

