



FCPK Bytów Sp. z o.o.
ul. L. borska 26, 77-100 Bytów, Poland
tel. +48-59-822-9700, fax +48-59-822-9701
www.fcpk.pl

**Elementy transportowe
mocujące i złaczne**

**Elements for transporting
lifting and fastening**



Elementy Transportowe Przykręcane

Lifting Components Bolted

I.



Elementy Mocujące Clamping Components

II.



Elementy Ustalające I Złączne

III.




























Locating And Fastening Components



I.

Elementy transportowe - przykręcane

Lifting components bolted

	str./page		str./page		str./page
	CA Z.4 Czop mocujący Shank		LR01 Z.12 ruba z uchem Lifting eye bolt		LR13 Z.26 Hak nowy przykręcany Hook
	CB Z.4 Czop mocujący Shank		LR02 Z.13-14 ruba z uchem obrotowym Lifting eye bolt		LR14 Z.27 Ucho nowe uchylnie Zing block
	CT Z.4 Czop transportowy VDI 3366 Lifting stud VDI 3366		LR03 Z.15 ruba z uchem obrotowym Lifting eye bolt		LR15 Z.28 Ucho nowe uchylnie Zing block
	LW01 Z.5 Czop transportowy VDI 3366 Lifting bracket VDI 3366		LR04 Z.16 Ucho nowe Lifting eye nut		
	LW02 Z.6 Uchwyt transportowy FIAT Lifting bracket FIAT		LR05 Z.17 Ucho nowe obrotowe Lifting eye		
	LW03 Z.7 Uchwyt transportowy RENAULT Lifting bracket RENAULT		LR06 Z.18 ruba z uchem obrotowym i uchylnym Lifting eye bolt		
	LW04 Z.8 Uchwyt transportowy BMW Lifting bracket BMW		LR07 Z.19 ruba z uchem obrotowym i uchylnym Lifting eye bolt		
	LW021 Z.9 Sworze transportowy FIAT Lifting pin FIAT		LR08 Z.20 ruba z uchem obrotowym i uchylnym Lifting eye bolt		
	LW031 Z.9 Sworze transportowy PSA-ZENAU Lifting pin PSA-ZENAU		LR09 Z.21-22 ruba z uchem obrotowym i uchylnym Load ring		
	LW041 Z.10 Sworze transportowy BMW Lifting pin BMW		LR10 Z.23 Zaczep nowy obrotowy Eyebolt for chain		
	LW042 Z.10 Kołek ustalający BMW Centering pin BMW		LR11 Z.24 Hak nowy obrotowy Eyebolt hook		
	SUM Z.11 ruba z uchem Lifting eye bolt		LR12 Z.25 Hak nowy przykręcany Hook		

Zalecenia dotyczące użytkowania uchwytów:

1. Powierzchnia, do której przykręcony będzie uchwyt powinna być płaska. Należy zwrócić uwagę na obciążenie rury oczkowej. Połączenie gwintowe powinno być odpowiednie do przenoszonego obciążenia i rodzaju transportowanego materiału.

Zaleca się minimalne głębokości gwintu:

1 x M* - dla stali

2 x M* - dla aluminium

1,25 x M* - dla żeliwa

2,5 x M* - dla stopów aluminium i magnezu

*- średnica gwintu

2. W przypadku stosowania uchwytów łącznie z łańcuchami, pasami i linami nośnymi, należy zwracać uwagę na właściwe ich obciążenie (stosować wyłącznie elementy z atestem)

W czasie użytkowania uchwytów należy sprawdzać czy są one cały czas mocno usadowione oraz zwracać szczególną uwagę na ich zużycie (wygięcia, pęknięcia, łuski korozji itp.....)

3. Oddziaływanie temperatury:

Dopuszczalne obciążenia stosowanych uchwytów należy odpowiednio zredukować, zgodnie z poniższą tabelą:

100° to 200°C minus 15%	212°F to 392°F
200° to 250°C minus 20%	392°F to 482°F
250° to 350°C minus 25%	482°F to 662°F

Nie należy stosować w temperaturach powyżej 350°C (662°F)

User instruction:

1. Ensure that the bolting surface is flat. See also loading of eyebolts. The threaded connection on the transported load must be suitable for transferring forces and the material construction.

Minimum thread depth recommends:

1 x M* - in steel

2 x M* - in aluminium

1,25 x M* - in cast iron

2,5 x M* - in aluminium-magnesium alloys

*-thread diameter

2. When using eyebolts with chains, belts, lines make sure they have in appropriate load limits (use only certified products). Once bolts have been in use for some time check that they are firmly seated. Pay special attention to any cracks, bends or signs of corrosion.

3. Effect of temperature:

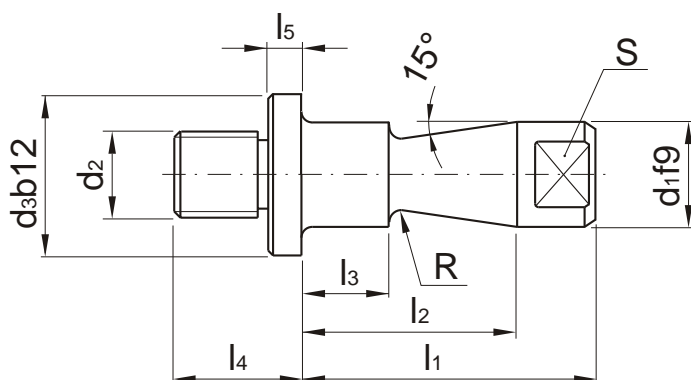
For lifting points for bolt on the working load limits have to be reduced according to following table:

100° to 200°C minus 15%	212°F to 392°F
200° to 250°C minus 20%	392°F to 482°F
250° to 350°C minus 25%	482°F to 662°F

Temperatures above 350°C (662°F) are not permitted

CZOP MOCUJ CY
SHANK

PN-83/M-66102



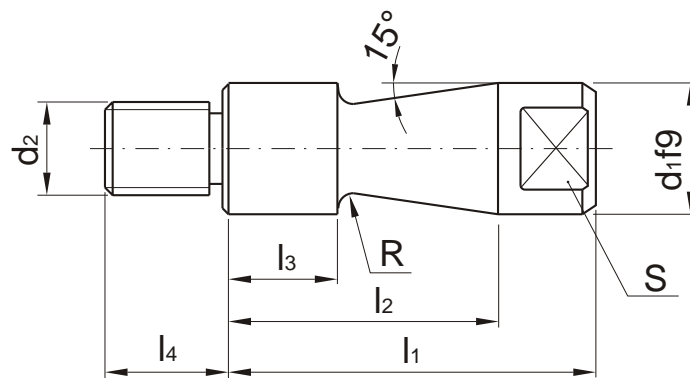
CA

Mat. 1.0503

d1	d2	d3	l1	l2	S	l3	l4	l5	R	NR KAT.
20	M20x1,5	25	40	28	14	14	17	4	6	CA-2028
25	M24x2	32	45	32	19	16	22	6		CA-2532
32	M30x2	40	50	37	24	17	27	8	8	CA-3237
40	M42x2	50	72	53	32	28			12	CA-4053
50	M48x2	63	80	56	41					CA-5056

CZOP MOCUJ CY
SHANK

PN-83/M-66102



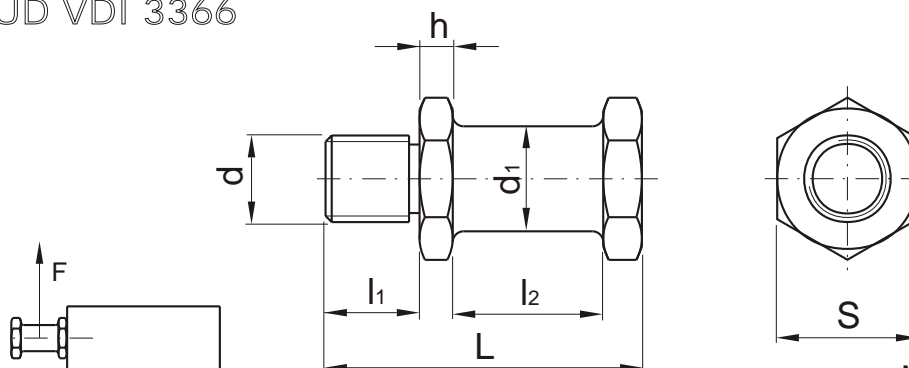
CB

Mat. 1.0503

d1	d2	l1	l2	S	l3	l4	R	NR KAT.
20	M16x1,5	40	28	14	14	13	6	CB-2028
25	M20x1,5	45	32	19	16	16		CB-2532
32	M24x2	50	37	24	17	19	8	CB-3237
40	M30x2	72	53	32	28		12	CB-4053
50	M42x2	80	56	41				CB-5056

CZOP TRANSPORTOWY VDI 3366
LIFTING STUD VDI 3366

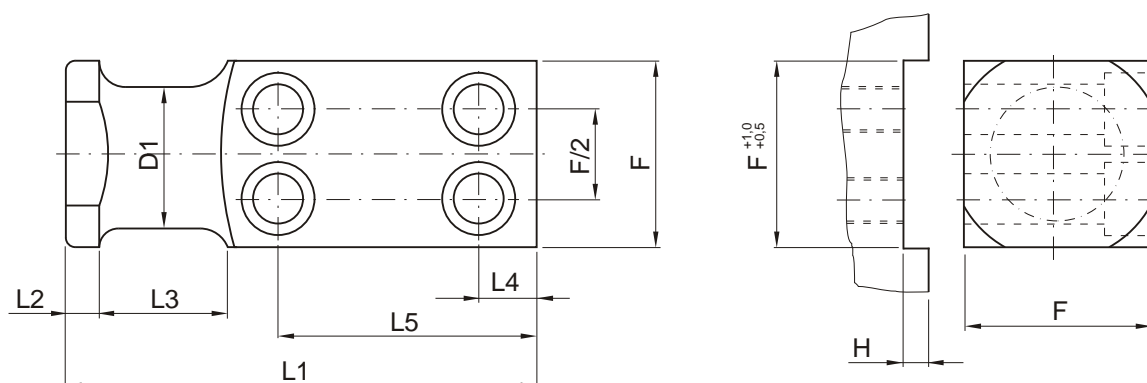
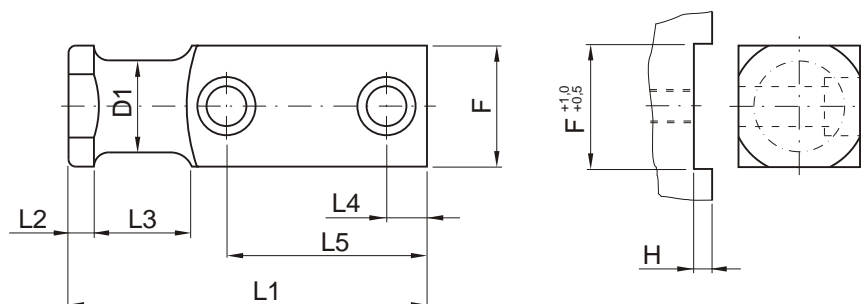
CT



Mat. 1.0503

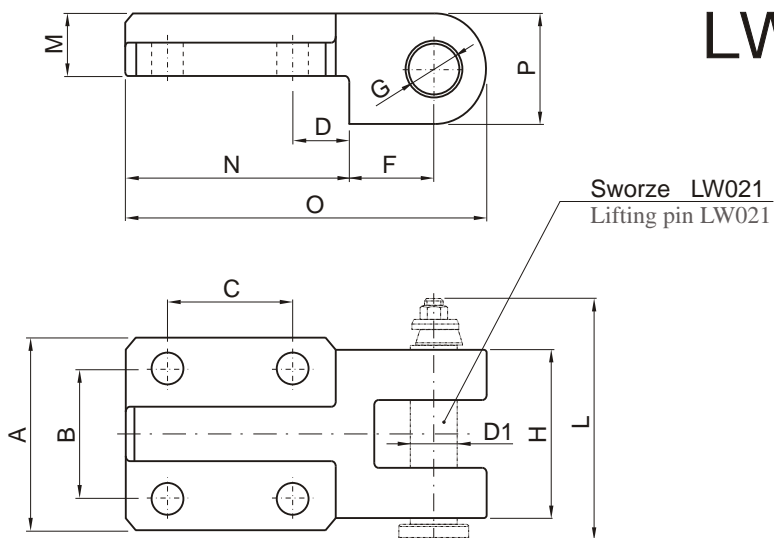
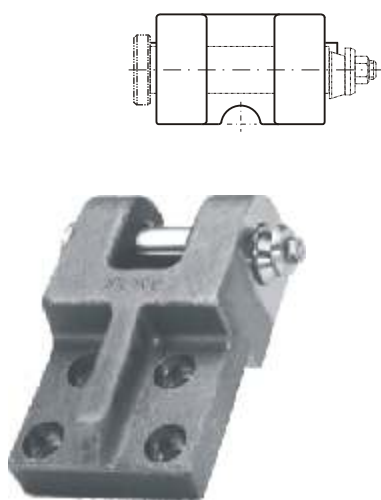
d	l1	l2	L	d1	h	S	F max. [kg]	NR KAT.
M16	22	16	50	16	6	27	320	CT-16
M20	25	20	60	20	7,5	32	500	CT-20
M24	32	25	78	25	10,5	36	1000	CT-24
M30	40	32	95	32	11,5	41	1500	CT-30
M36	50	40	118	40	14	50	2500	CT-36

LW01

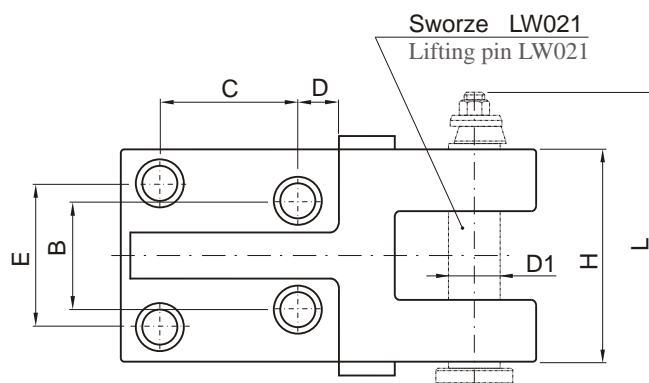
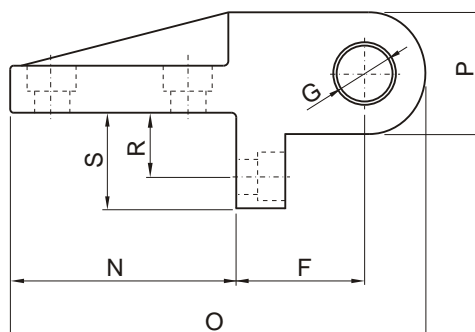
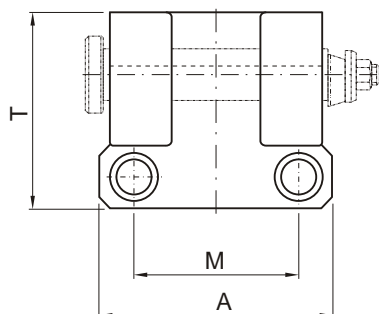


NR KAT.	Obciążenie max. Max. Load [Kg]	D1	L1	L2	L3	L4	L5	F	H	ruby screws	
										wymiar dimension	ilość number
LW01-016	320	16	80	6	20	10	44	20	6	M8x25	2
LW01-020	630	20	90	8	25		47	25	8	M10x30	
LW01-025	1250	25	100		30	12	50	35	10	M12x40	
LW01-032	2000	32	120	10	32	16	62	40		M16x45	
LW01-040	3200	40	140		40	18	72	50	12	M20x60	
LW01-050	5000	50	160	12	45	22	81	60	14	M24x70	4
LW01-063	8000	63	200		50	20	98	80	16	M20x85	
LW01-080	12500	80	250	15	65	25	125	100	18	M24x120	
LW01-100	20000	100	300		80	30	155	120	20	M30x140	

LW02

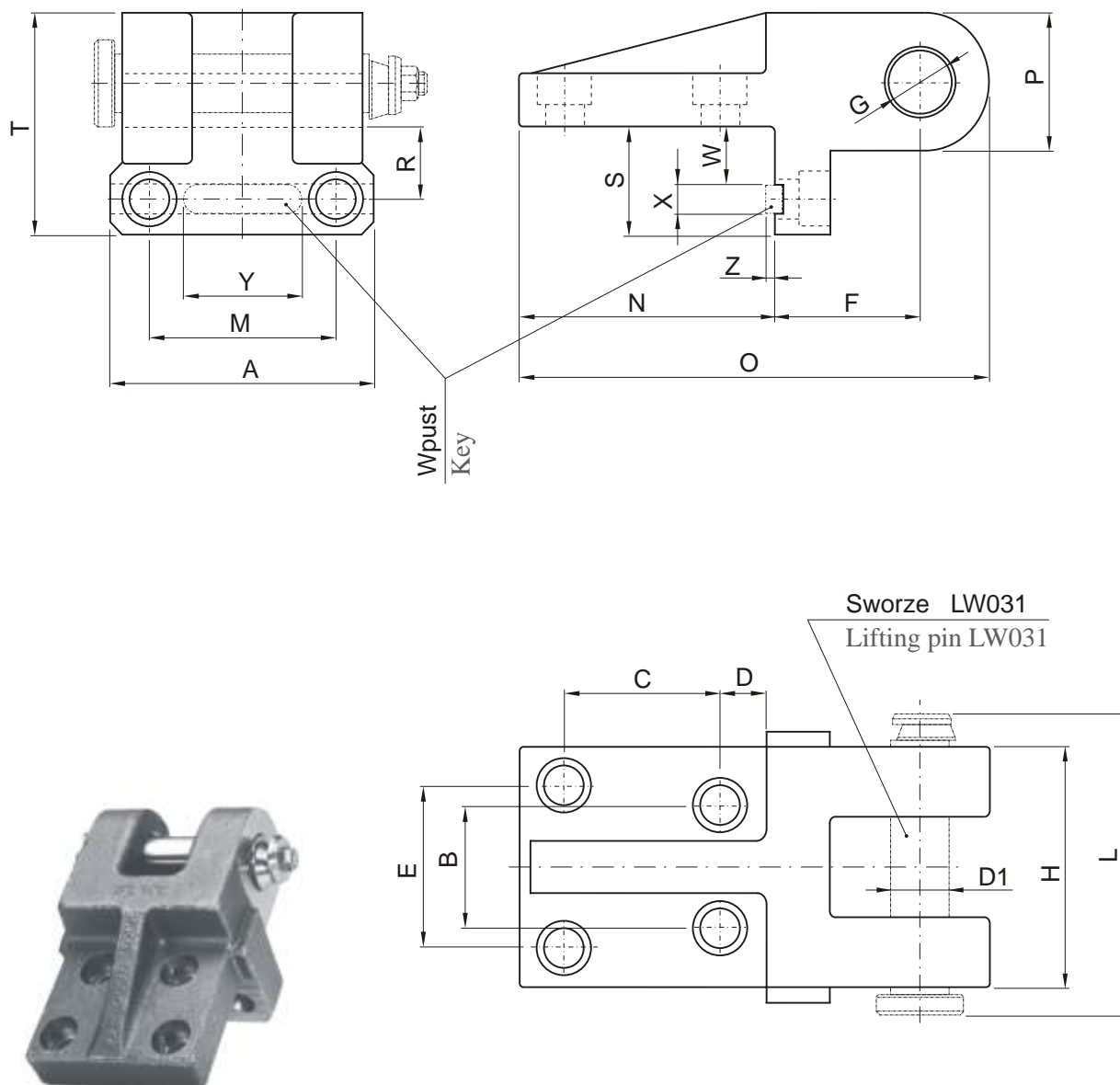


NR KAT.	Ci ar Load [Kg]	A	B	C	D	D1	F	G	H	L	M	N	O	P	ruby screws DIN 912 8.8
LW02-06	600	80	50	40	22,5	15,6	39	16	70	102,5	32	80	145	52	M12x45
LW02-10	1000	90	60		27,5	20,6	42	21	79	113,5	36	90	160	56	M16x55
LW02-20	2000	100	65	65	32,5	25,6	60	26	90	128,5	50	120	215	70	M20x80



NR KAT.	Ci ar Load [Kg]	A	B	C	D	D1	E	F	G	H	L	M.	N	O	P	R	S	T	ruby screws DIN 912 8.8
LW02-40	4000	135	56	60	20	33	84	85	34	125	166,5	96	100	221	72	30	50	111	M16x45
LW02-70	7000	180	80	70	30	43	110	100	44	160	210,5	130	125	270	90	35	60	140	M20x60

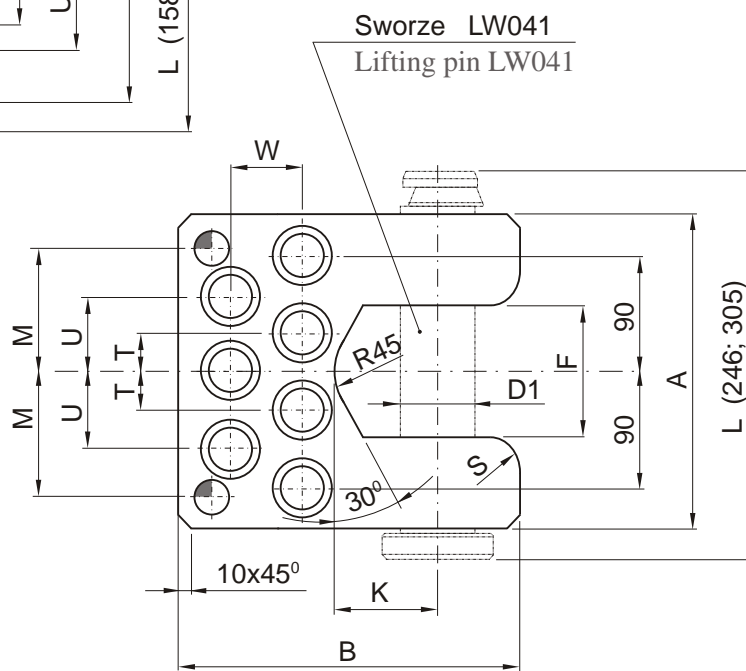
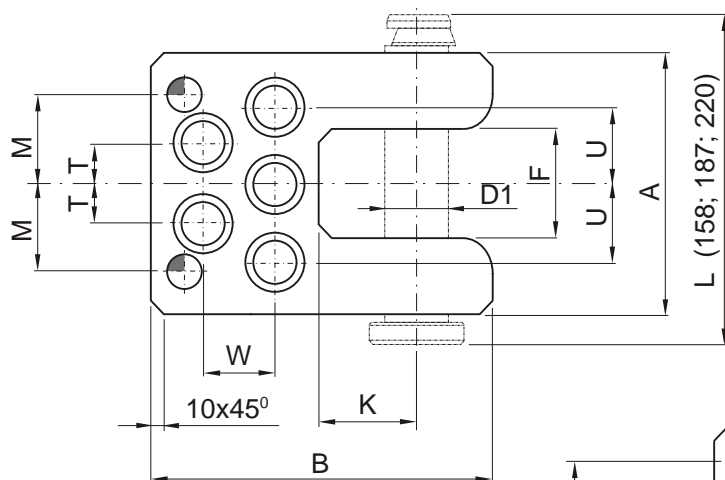
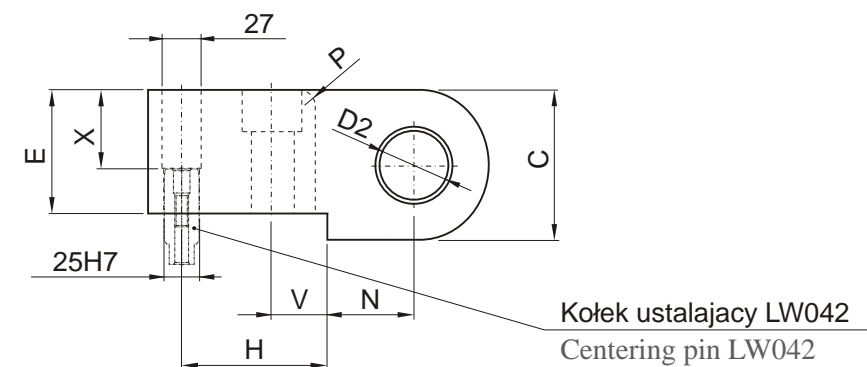
LW03



NR KAT.	Ci ężar Load [Kg]	A	B	C	D	D1	E	F	G	H	L	ruby screws DIN 912 8.8
LW03-32	4000	135	56	60	20	32	84	85	33	125	154,0	M16x45
LW03-40	6300	180	80	70	30	40	110	100	41	160	197,5	M20x60

NR KAT.	W	X	Y	Z	M	N	O	P	R	S	T
LW03-32	24	14	63	4,5	96	100	221	72	30	50	111
LW03-40	27	16	100	5,0	130	125	270	90	35	60	140

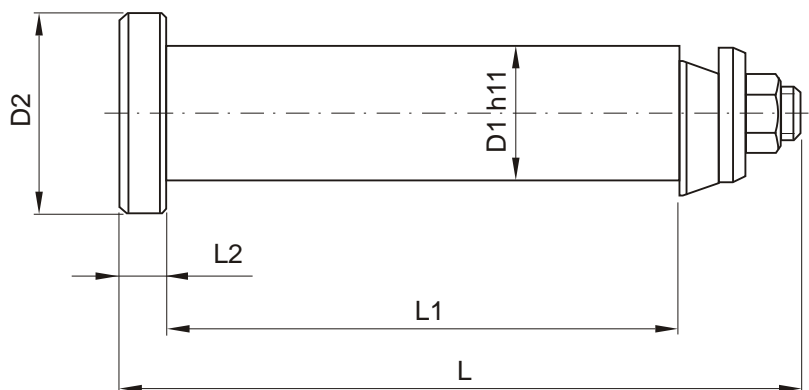
LW04



NR KAT.	Ci ar Load [Kg]	A	B	C	D1	D2	E	F	H	ruby screws DIN 912 8.8
LW04-30	3200	126	185	80	30	32	75	50	85	M16x90
LW04-40	4500	150	210	100	40	42	95	60	87	M20x120
LW04-50	8000	175	240	120	50	52	115	75	95	M24x140
LW04-60	10000	200	280	140	60	62	130	80	120	M30x160
LW04-80	18000	250	300	160	80	82	150	100	105	M30x180

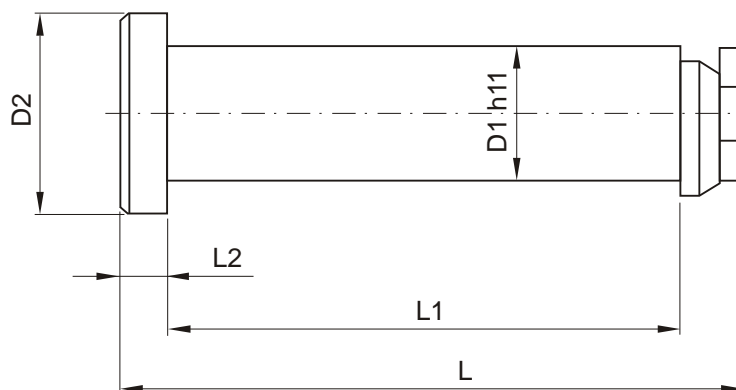
NR KAT.	U	V	W	X	K	L	M	N	P	S	T
LW04-30	40	30	35	40	50	158	45	40	12	16	20
LW04-40	45	25	40	60	55	187	52	50		20	22,5
LW04-50	50	35	45	80	70	220	62,5	60	16	24	25
LW04-60	60	45	60	95	80	246	75	65	20	30	30
LW04-80		30		115	95	305	100	90			

SWORZE TRANSPORTOWY FIAT
LIFTING PIN FIAT
LW021

Cz do uchwytu LW02
Spare part for lifting bracket LW02


NR KAT.	Ci ar Load [Kg]	D1	D2	L	L1	L2
LW021-06	600	15,6	25	102,5	77	6
LW021-10	1000	20,6	30	113,5	86	
LW021-20	2000	25,6	35	128,5	100	
LW021-40	4000	33,0	43	166,5	135	
LW021-70	7000	43,0	53	210,5	175	8

SWORZE TRANSPORTOWY PSA-RENAULT
LIFTING PIN PSA-RENAULT
LW031

Cz do uchwytu LW03
Spare part for lifting bracket LW03


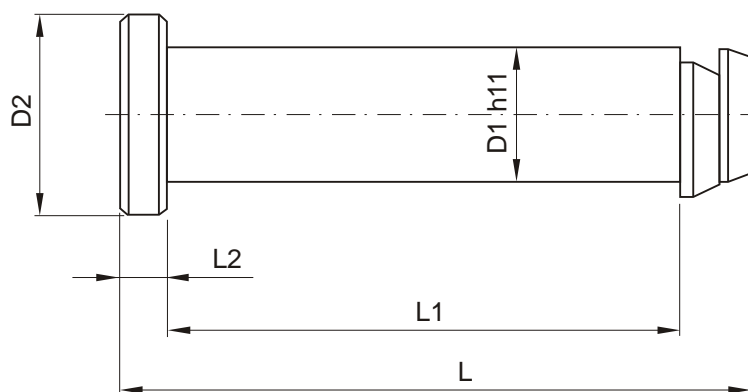
NR KAT.	Ci ar Load [Kg]	D1	D2	L	L1	L2
LW031-32	6300	32	40	154,0	132	6
LW031-40	10000	40	50	197,5	170	8
LW031-50	16000	50	63	247,5	212	10
LW031-63	25000	63	80	309,0	265	12

SWORZE TRANSPORTOWY BMW
LIFTING PIN BMW

LW041



Cz do uchwytu LW04
Spare part for lifting bracket LW04



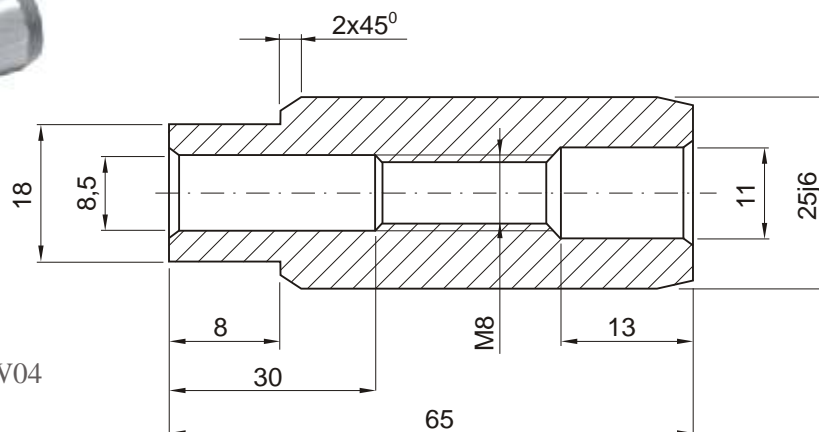
NR KAT.	Ci ar Load [Kg]	D1	D2	L	L1	L2
LW041-30	3200	30	40	158	129	10
LW041-40	4500	40	50	187	155	
LW041-50	8000	50	60	220	180	11
LW041-60	10000	60	70	246	205	
LW041-80	18000	80	90	305	255	12

KOŁEK USTALAJ CY BMW
CENTERING PIN BMW

LW042



Cz do uchwytu LW04
Spare part for lifting bracket LW04

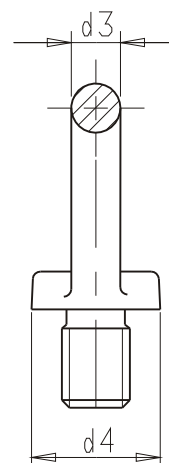
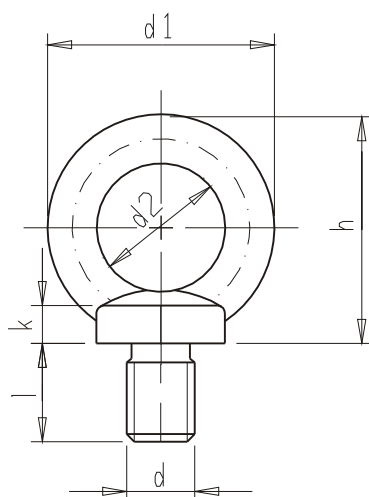


Uwaga:

Do monta u nale y u ywa ruby M6x60 DIN EN ISO 4762

Note:

For assembly use socket cap screw M6x60 DIN EN ISO 4762

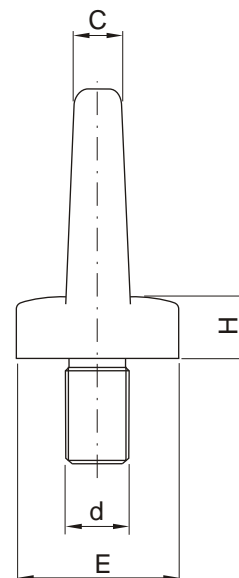
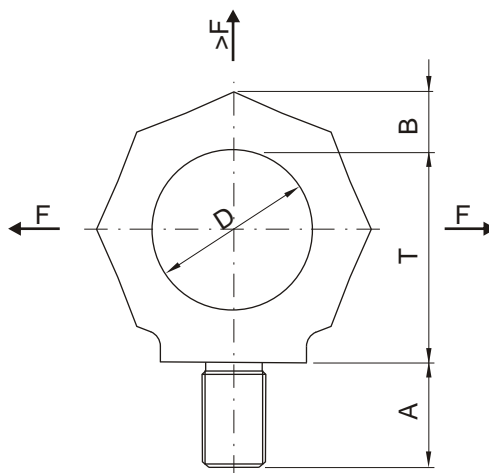
SUM


NR KAT	SUM-08	SUM-10	SUM-12	SUM-16	SUM-20	SUM-24	SUM-30	SUM-36
d	M8	M10	M12	M16	M20	M24	M30	M36
d 1	36	45	54	63	71	90	108	126
d 2	20	25	30	35	40	50	60	70
d 3	8	10	12	14	16	20	24	28
d 4	20	25	30	35	40	50	60	70
h	36	45	53	62	70	90	109	128
k	6	8	10	12	14	16	22	27
l	13	17	20.5	27	30	36	45	54

Nośność Q max. [kg]	SUM-08	SUM-10	SUM-12	SUM-16	SUM-20	SUM-24	SUM-30	SUM-36
	140	230	340	700	1200	1800	3200	4600
	100	170	240	500	860	1290	2300	3300

Na specjalne zamówienie dostarczymy śruby z uchem - calowe.
 Lifting eye bolts with thread inch on request

LR01



Uwaga:

F- obciążenie dopuszczalne/ dla każdego punktu zaczepienia

Note:

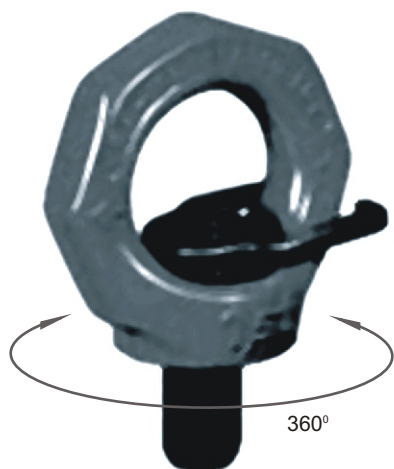
F- working load limit/ carrying capacity of each lifting point

NR KAT.	F [t]	A	B	C	D	E	H	d	T	waga weight [kg]
LR01-06	0,1	12	11	10	25	25	11	M6	34	0,1
LR01-08	0,2	12	11	10	25	25	11	M8	34	0,1
LR01-10	0,25	15	11	10	25	25	11	M10	34	0,1
LR01-12	0,4	18	13	12	30	30	12	M12	41	0,2
LR01-14	0,75	21	15	14	35	35	13	M14	48	0,25
LR01-16	1	24	15	14	35	35	13	M16	48	0,3
LR01-20	1,5	30	17	16	40	40	16	M20	55	0,45
LR01-24	2	36	21	20	50	50	20	M24	70	0,7
LR01-30	3	45	26	24	60	60	25	M30	85	1,6
LR01-36	4	54	43	38	90	100	37	M36	130	6,0
LR01-42	6	63	43	38	90	100	37	M42	130	6,2
LR01-48	8	67	43	38	90	100	37	M48	130	6,4

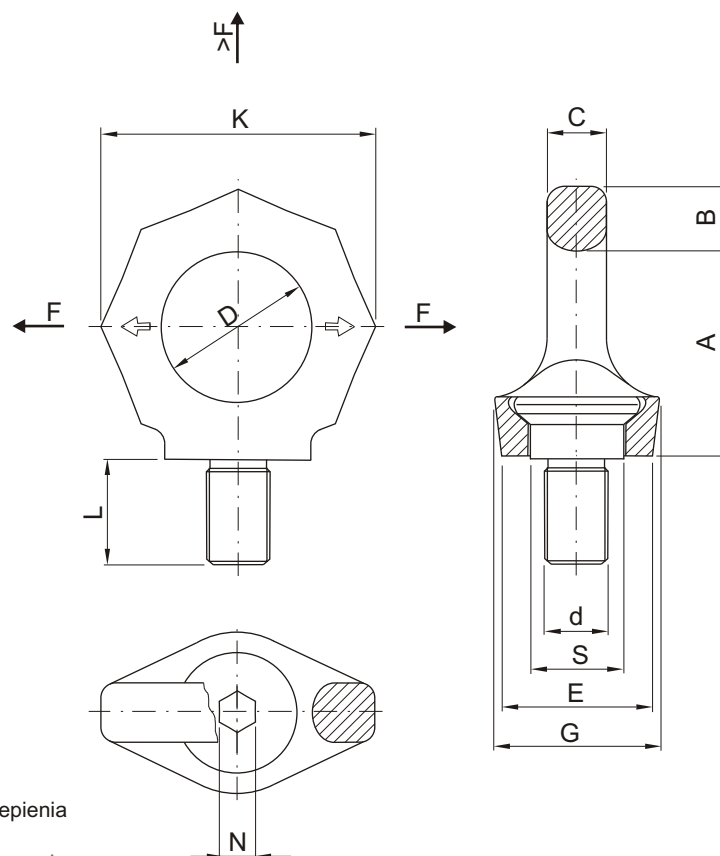
Sposób zawieszenia Method of lift										
Ilość punktów zawieszenia Number of legs	1	1	2	2	2	2	2	3-4	3-4	3-4
Kąt pochyleń < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zależności od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with different sling methods									
LR01-06	0,4	0,1	0,8							
LR01-08	0,8	0,2	1,6							
LR01-10	1	0,25	2							
LR01-12	1,6	0,4	3,2							
LR01-14	3	0,75	6							
LR01-16	4	1	8							
LR01-20	6	1,5	12							
LR01-24	8	2	16							
LR01-30	12	3	24							
LR01-36	16	4	32							
LR01-42	24	6	48							
LR01-48	32	8	64							

W tym zakresie zaleca się stosowanie elementów transportowych typu LR02 z możliwością regulacji kierunku obciążenia.

In this range we recommend use the LR02 type that is adjustable in the direction of pull !

LR02


Tylko pełne opakowanie
Full package only



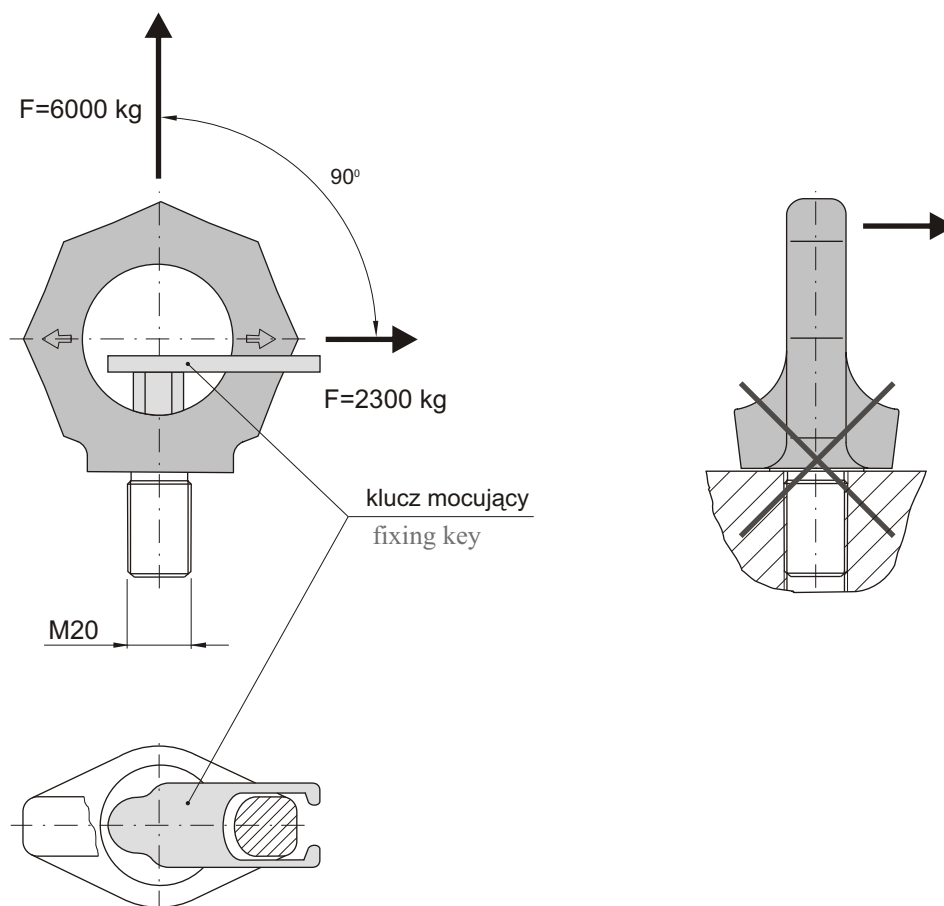
Uwaga:

F-obciążenie dopuszczalne/ dla każdego punktu zaczepienia

Note:

F- working load limit/ carrying capacity of each lifting point

NR KAT.		F [t]	A	B	C	D	E	G	K	L	d	N	S	opakow. packing unit
bez klucza without key	z kluczem with key													
LR02-0308	LR02-0308K	0,3	34	11	8,5	25	25	28	47	12	M8	6	16	20
LR02-0410	LR02-0410K	0,4	34	11	8,5	25	25	28	47	15	M10	6	15	20
LR02-0712	LR02-0712K	0,75	42	13	10	30	30	34	56	18	M12	8	18	20
LR02-1516	LR02-1516K	1,5	49	15	14	35	35	40	65	24	M16	10	22	10
LR02-2320	LR02-2320K	2,3	57	17	16	40	40	50	75	30	M20	12	27,5	10
LR02-3224	LR02-3224K	3,2	69	21	19	48	48	60	90	36	M24	14	33	10
LR02-4530	LR02-4530K	4,5	86	26	24	60	60	75	112	45	M30	17	41,5	4
LR02-7036	LR02-7036K	7	103	32	29	72	72	90	135	54	M36	22	49,5	1
LR02-9042	LR02-9042K	9	120	38	34	82	82	105	158	63	M42	24	58	1
LR02-12048	LR02-12048K	12	137	43	38	94	100	120	180	72	M48	27	66	1
LR02-04Z1	LR02-04Z1K	0,4	34	11	8,5	25	25	28	47	15	3/8"-16UNC	1/4"	15	1
LR02-07Z1	LR02-07Z1K	0,75	42	13	10	30	30	34	56	18	1/2"-13UNC	5/16"	18	1
LR02-15Z1	LR02-15Z1K	1,5	49	15	14	35	35	40	65	24	5/8"-11UNC	3/8"	22	1
LR02-23Z1	LR02-23Z1K	2,3	57	17	16	40	40	50	75	30	3/4"-10UNC	1/2"	27,5	1
LR02-23Z2	LR02-23Z2K	2,3	57	17	16	40	40	50	75	32	7/8"-9UNC	1/2"	27,5	1
LR02-32Z1	LR02-32Z1K	3,2	69	21	19	48	48	60	90	36	1"-8UNC	9/16"	33	1
LR02-45Z1	LR02-45Z1K	4,5	86	26	24	60	60	75	112	45	1-1/4"-7UNC	5/8"	41,5	1
LR02-70Z1	LR02-70Z1K	7	103	32	29	72	72	90	135	54	1-1/2"-6UNC	7/8"	49,5	1
LR02-90Z1	LR02-90Z1K	9	120	38	34	82	82	105	158	63	1-3/4"-5UNC	1"	58	1
LR02-120Z1	LR02-120Z1K	12	137	43	38	94	100	120	180	72	2"-4,5UNC	1-1/8"	66	1

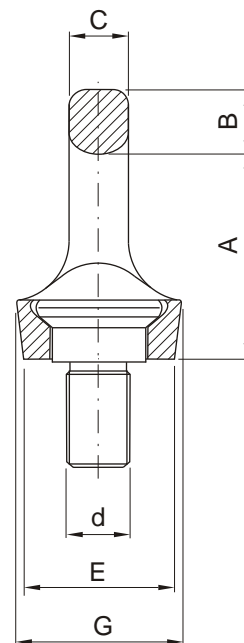
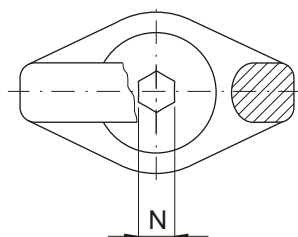
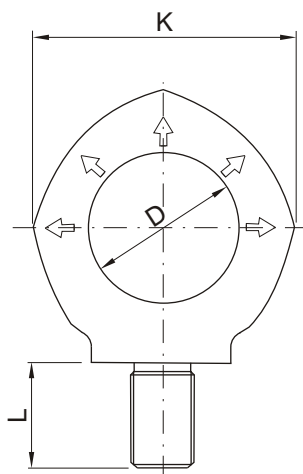
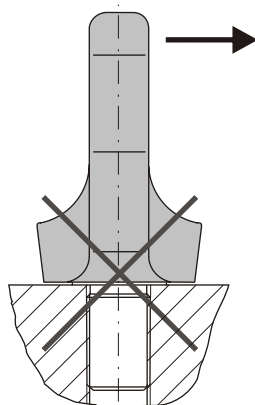
LR02


Sposób zawieszenia Method of lift										
Ilość punktów zawieszenia Number of legs	1	1	2	2	2	2	2	3-4	3-4	3-4
Kąt pochylenia < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zależności od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with different sling methods									
LR02-03...	1	0,3	2	0,6	0,56	0,3	0,3	0,6	0,6	0,3
LR02-04...	1	0,4	2	0,8	0,56	0,4	0,4	0,8	0,6	0,4
LR02-07...	2	0,7	4	1,5	1	0,7	0,7	1,5	1,1	0,7
LR02-15...	4	1,5	8	3	2,1	1,5	1,5	3,1	2,2	1,5
LR02-23...	6	2,3	12	4,6	3,2	2,3	2,3	4,8	3,4	2,3
LR02-32...	8	3,2	16	6,4	4,5	3,2	3,2	6,7	4,8	3,2
LR02-45...	12	4,5	24	9	6,3	4,5	4,5	9,4	6,7	4,5
LR02-70...	16	7	32	14	9,8	7	7	14,7	10,5	7
LR02-90...	24	9	48	18	12,6	9	9	18,9	13,5	9
LR02-120...	32	12	64	24	16,8	12	12	25	18	12

LR03



Wykonane ze stali nierdzewnej
Stainless steel



Uwaga:

F-obciążenie dopuszczalne/ dla każdego punktu zaczepienia

Note:

F- working load limit/ carrying capacity of each lifting point

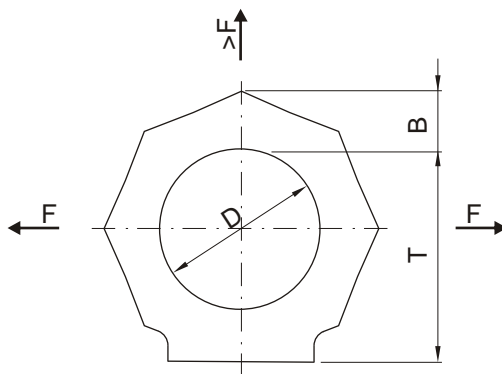
NR KAT.	F [t]	A	B	C	D	E	G	K	L	d	N	waga weight [kg]
LR03-12	0,5	42	14	10	30	30	32	56	18	M12	8	0,2
LR03-16	1,0	49	16	12	35	35	37	65	24	M16	10	0,3
LR03-20	2,0	57	19	16	40	40	43	74	30	M20	12	0,6
LR03-24	2,5	69	24	19	48	50	53	92	35	M24	14	1,0

Sposób zawieszenia Method of lift											
Ilość punktów zawieszenia Number of legs	1	1	2	2	2	2	2	2	3-4	3-4	3-4
Kąt pochylenia < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zależności od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with different sling methods										
LR03-12	1,0	0,5	2,0	1,0	0,8	0,5	0,5	0,5	1,3	0,9	0,5
LR03-16	2,0	1,0	4,0	2,0	1,7	1,0	1,0	1,0	2,5	1,8	1,0
LR03-20	4,0	2,0	8,0	4,0	2,5	2,0	2,0	2,0	3,8	2,7	2,0
LR03-24	5,0	2,5	10,0	5,0	3,6	2,5	2,5	2,5	5,5	3,9	2,5

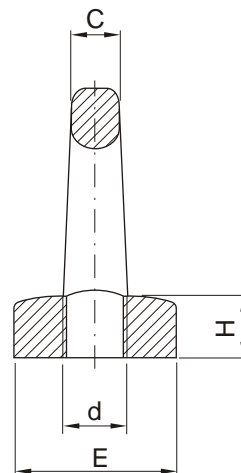


Należy stosować rury o klasie wytrzymałości min. 8.8

Standard application for bolts with min. quality class 8.8



LR04



Uwaga:

F-obciążenie dopuszczalne/ dla każdego punktu zaczepienia

Note:

F- working load limit/ carrying capacity of each lifting point

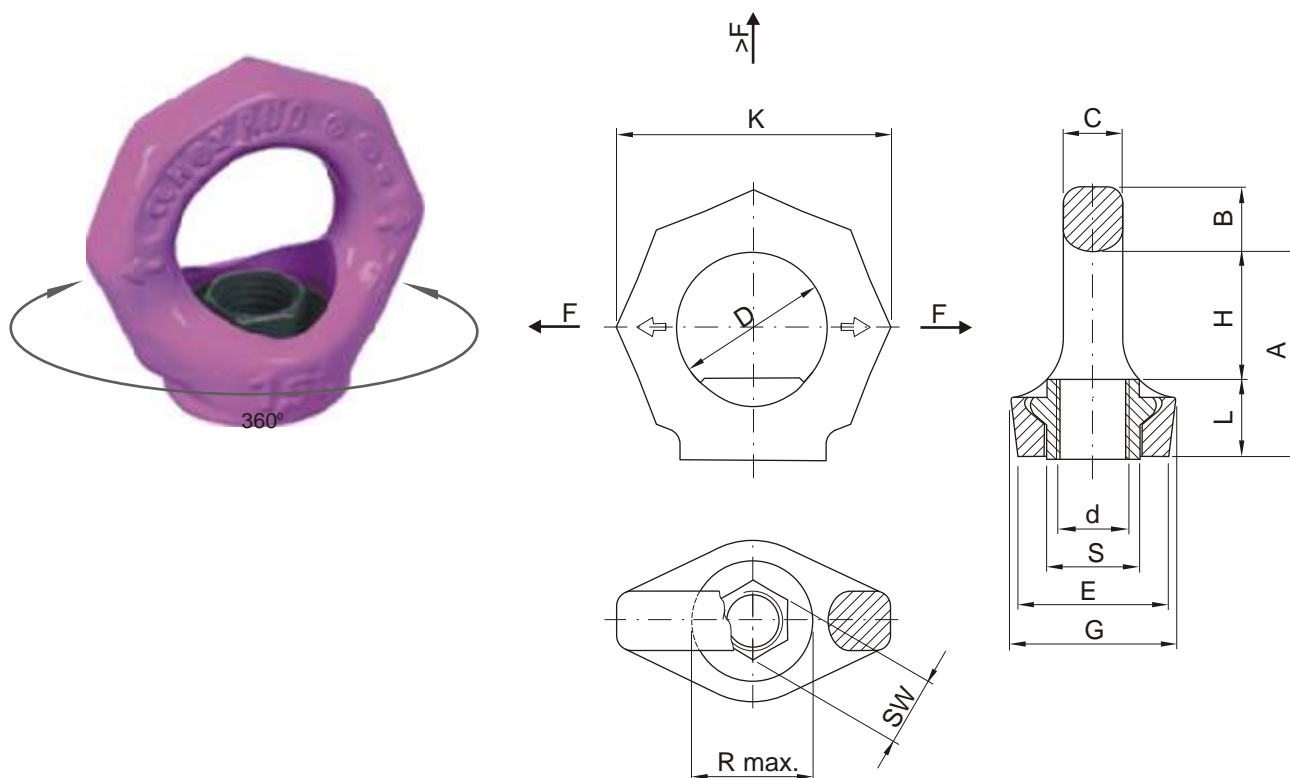
NR KAT.	F [t]	B	C	D	E	H	d	T	waga weight [kg]
LR04-06	0,1	11	10	25	25	11	M6	35	0,1
LR04-08	0,2	11	10	25	25	11	M8	35	0,1
LR04-10	0,25	11	10	25	25	11	M10	35	0,1
LR04-12	0,4	13	12	30	30	12	M12	41	0,2
LR04-14	0,75	15	14	35	35	13	M14	48	0,25
LR04-16	0,8	15	14	35	35	13	M16	48	0,3
LR04-20	1,5	17	16	40	40	16	M20	55	0,45
LR04-24	2	21	20	50	50	20	M24	70	0,7
LR04-30	3	26	24	60	60	25	M30	85	1,6
LR04-36	4	43	38	90	100	37	M36	130	6,0
LR04-42	6	43	38	90	100	37	M42	130	6,2
LR04-48	8	43	38	90	100	37	M48	130	6,4

Sposób zawieszenia Method of lift										
Ilość punktów zawieszenia Number of legs	1	1	2	2	2	2	2	3-4	3-4	3-4
Kąt pochyleń $\alpha < \beta$ Angle of inclination $\alpha < \beta$	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zależności od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with different sling methods									
LR04-06	0,4	0,1	0,8							
LR04-08	0,8	0,2	1,6							
LR04-10	1	0,25	2							
LR04-12	1,6	0,4	3,2							
LR04-14	3	0,75	6							
LR04-16	4	0,8	8							
LR04-20	6	1,5	12							
LR04-24	8	2	16							
LR04-30	12	3	24							
LR04-36	16	4	32							
LR04-42	24	6	48							
LR04-48	32	8	64							

W tym zakresie zaleca się stosowanie elementów transportowych typu LR05 z możliwością regulacji kierunku obciążenia.

In this range we recommend use the LR05 type that is adjustable in the direction of pull !

LR05









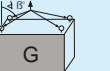

Uwaga:

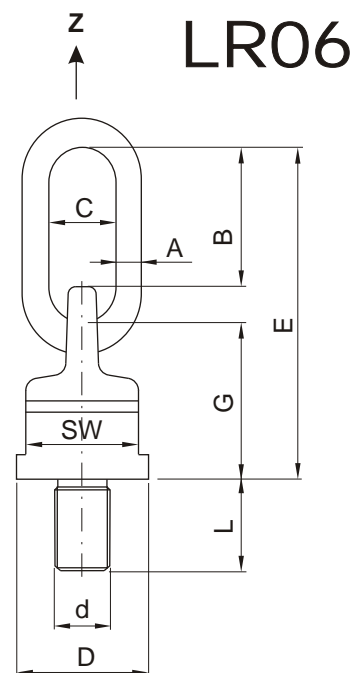
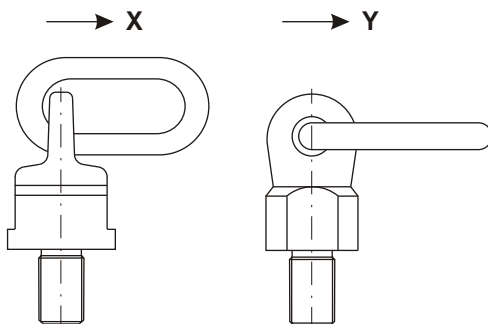
F-obciążenie dopuszczalne/ dla każdego punktu zaczepienia

Note:

F- working load limit/ carrying capacity of each lifting point

NR KAT.	F [t]	A	B	C	D	E	G	H	K	L	d	R	S	SW	waga weight [kg]
LR05-08	0,4	34	11	8,5	25	25	28	20	47	14	M8	20	16	12	0,1
LR05-10	0,4	34	11	8,5	25	25	28	20	47	14	M10	20	16	12	0,1
LR05-12	0,75	42	13	10	30	30	34	25	56	17	M12	24	20	14	0,2
LR05-16	1,5	51	15	14	35	35,5	40	30	65	21	M16	30	22	19	0,3
LR05-20	2,3	57	17	16	40	40	50	34	75	23	M20	37	29	24	0,5
LR05-24	3,2	69	21	19	48	50	60	40	90	29	M24	45	35	30	0,9
LR05-30	4,5	86	26	24	60	60	75	52	112	34	M30	56	44	36	1,7

Sposób zawieszenia Method of lift										
Ilo punktów zawieszenia Number of legs	1	1	2	2	2	2	2	3-4	3-4	3-4
K t pochylenia < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zale no ci od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with diffrent sling methods									
LR05-8	1,0	0,4	2,0	0,8	0,56	0,4	0,4	0,8	0,6	0,4
LR05-10	1,0	0,4	2,0	0,8	0,56	0,4	0,4	0,8	0,6	0,4
LR05-12	2,0	0,7	4,0	1,5	1,0	0,7	0,7	1,5	1,1	0,7
LR05-16	4,0	1,5	8,0	3,0	2,1	1,5	1,5	3,1	2,2	1,5
LR05-20	6,0	2,3	12,0	4,6	3,2	2,3	2,3	4,8	3,4	2,3
LR05-24	8,0	3,2	16,0	6,4	4,5	3,2	3,2	6,7	4,8	3,2
LR05-30	12,0	4,5	24,0	9,0	6,3	4,5	4,5	9,4	6,7	4,5



Uwaga:

F- obciążenie dopuszczalne/ dla każdego punktu zaczepienia

() - wartości w nawiasach dla sposobu zaczepienia Y

* - standardowa długość gwintu

** - inne wymiary gwintu na życzenie (w podanym przedziale) - przy zamawianiu
ruba o wymiarach niestandardowych, należy określić: długość ruby lub
średnicę gwintu i długość ruby

Note:

F- working load limit/ carrying capacity of each lifting point

() - the values in the brackets for engage method Y

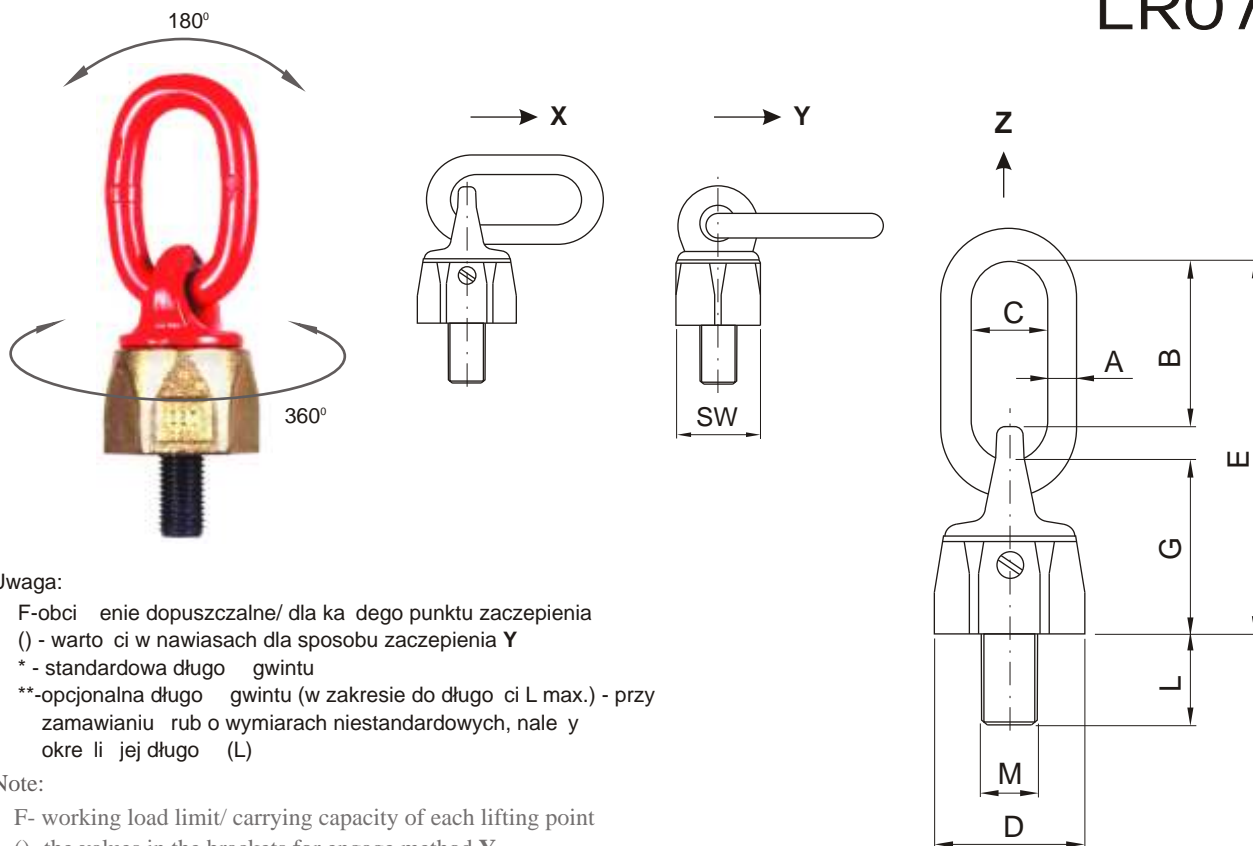
* - standard length of bolt thread

** - optional thread size on request (into this range only)-when ordering optional
please specify: length of bolt or thread diameter and length of bolt









NR KAT.	F [t]	A	B	C	D	SW	L*	L**	G	d	E	waga weight [kg]
LR06-0633L	6(7,5)	22	87	50	90	80	--	50-300	95	M33	210	---
LR06-0836	8(10)	22	87	50	90	80	54	---	95	M36	210	4,6
LR06-08ML	8(10)	22	87	50	90	80	--	50-300	95	M36-M39**	210	---
LR06-1042	10(12,5)	26	112	65	98	85	63	---	100	M42	240	6,3
LR06-1048	10(12,5)	26	112	65	98	85	68	---	100	M48	240	6,5
LR06-10ML	10(12,5)	26	112	65	98	85	--	60-300	100	M42-M52**	240	---
LR06-1556	15(18)	32	120	70	120	95	84	---	130	M56	280	11,3
LR06-1564	15(18)	32	120	70	120	95	94	---	130	M64	280	11,6
LR06-15ML	15(18)	32	120	70	120	95	--	80-300	130	M56-M85**	280	---
LR06-25M	25(30)	40	125	80	160	130	108	---	163	M72-M85**	332	27
LR06-2572L	25(30)	40	125	80	160	130	--	100-300	163	M72	332	---
LR06-3080	30(35)	40	125	80	170	130	120	---	163	M80	332	28,7
LR06-30ML	30(35)	40	125	80	170	130	--	100-300	163	M80-M85**	332	---
LR06-3590	35(40)	40	125	80	170	130	135	---	165	M90	332	30,7
LR06-35ML	35(40)	40	125	80	170	130	--	100-300	165	M90-M150**	332	---

Sposób zawieszenia Method of lift										
Ilość punktów zawieszenia Number of legs	1	1	2	2	2	2	2	3-4	3-4	3-4
Kąt pochyleń $\alpha < \beta$ Angle of inclination $\alpha < \beta$	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zależności od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with different sling methods									
LR06-06...	12,5	8(7,5)	25	12(15)	8,4(10,5)	6(7,5)	6(7,5)	12,6(15,7)	9(11,2)	6(7,5)
LR06-08...	12,5	8(10)	25	16(20)	11,2(14)	8(10)	8(10)	16,8(21)	12(15)	8(10)
LR06-10...	16	10(12,5)	32	20(25)	14(17,5)	10(12,5)	10(12,5)	21(26,2)	15(18,8)	10(12,5)
LR06-15...	25	15(18)	50	30(36)	21(25,2)	15(18)	15(18)	31,5(38)	22,5(27)	15(18)
LR06-25...	35	25(30)	70	50(60)	35(42)	25(30)	25(30)	52,5(63)	37,5(45)	25(30)
LR06-30...	35	30(35)	70	60(70)	42(49)	30(35)	30(35)	63(73,5)	45(52,5)	30(35)
LR06-35...	35	35(40)	70	70(80)	49(56)	35(40)	35(40)	73,5(84)	52,5(60)	35(40)

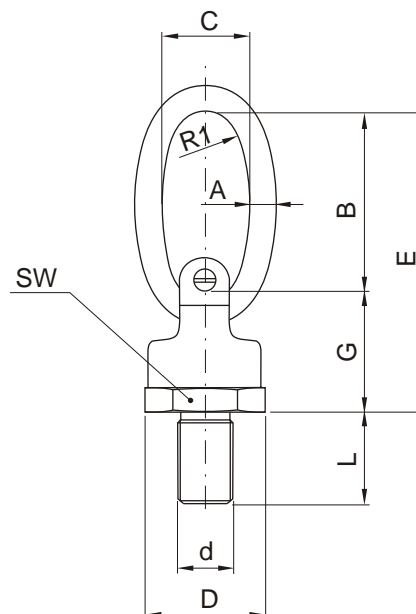
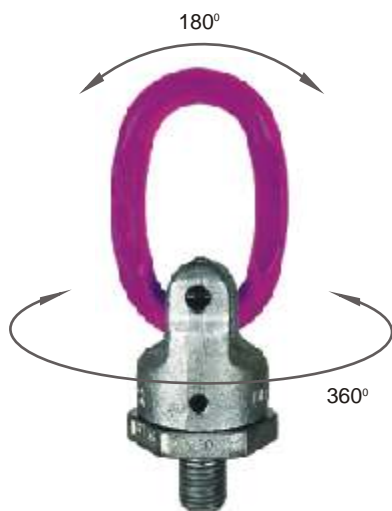
LR07



NR KAT.	F [t]	A	B	C	D	SW	L*	L** max	G	M	E	waga weight [kg]
LR07-08	0,3(0,4)	8	33	29	33	28	13	102	36	M8	76	0,25
LR07-10	0,45(0,6)	8	33	29	36	30	17	122	38	M10	78	0,3
LR07-12	0,6(0,75)	10	51	35	42	36	21	140	45	M12	105	0,4
LR07-16	1,3(1,5)	13	47	38	48	41	25	180	54	M16	114	0,6
LR07-20	2,0(2,5)	13	56	35	64	55	33	223	65	M20	135	1,1
LR07-24	3,5(4,0)	18	68	40	81	70	40	255	87	M24	172	2,7
LR07-30	5,0(6,0)	22	93	50	99	85	50	330	105	M30	220	5,5

Sposób zawieszenia Method of lift										
Ilo punktów zawieszenia Number of legs	1	1	2	2	2	2	2	3-4	3-4	3-4
K t pochylenia < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zale no ci od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with diffrent sling methods									
LR07-08	0,6	0,3(0,4)	1,2	0,6(0,8)	0,4	0,3	0,3	0,6	0,4	0,3
LR07-10	0,9	0,45(0,6)	1,8	0,9(1,2)	0,6	0,4	0,4	0,9	0,6	0,4
LR07-12	1,2	0,6(0,7)	2,4	1,2(1,5)	0,8	0,6	0,6	1,2	0,9	0,6
LR07-16	2,6	1,3(1,5)	5,2	2,6(3)	1,8	1,3	1,3	2,7	1,9	1,3
LR07-20	4	2(2,5)	8	4(5)	2,8	2	2	4,2	3	2
LR07-24	7	3,5(4)	14	7(8)	4,9	3,5	3,5	7,3	5,2	3,5
LR07-30	10	5(6)	20	10(12)	7	5	5	10,5	7,5	5

LR08



Uwaga:

F-obciążenie dopuszczalne/ dla każdego punktu zaczepienia

* - inne długości na zapytanie









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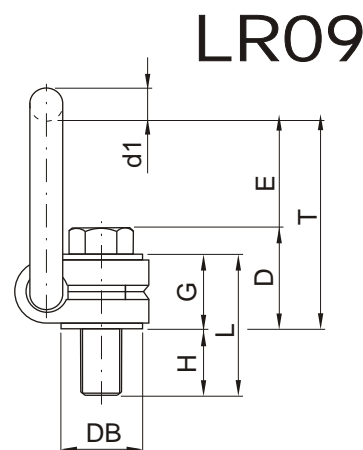
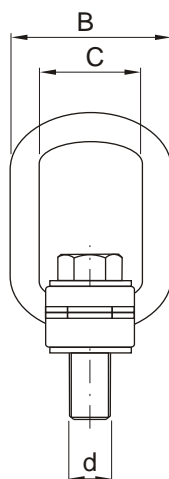
F- working load limit/ carrying capacity of each lifting point

*- other length L on request

NR KAT.	F [t]	A	B	C	D	SW	L*	G	d	E	R1	waga weight [kg]
LR08-0612	0,63	9	65	35	40	36	18	41	M12	105	15	0,35
LR08-1516	1,5	11	65	35	46	41	24	50	M16	115	15	0,6
LR08-2520	2,5	13	75	40	61	55	30	61	M20	135	18	1,1
LR08-4024	4,0	16	95	45	78	70	36	77	M24	172	20	2,1
LR08-5030	5,0	21	130	60	95	85	45	93	M30	223	25	4,5
LR08-8036	8,0	24	140	65	100	90	54	102	M36	242	28	6,1

LR08-06Z1	0,63	9	65	35	40	36	18	41	1/2"-13UNC	105	15	0,35
LR08-15Z1	1,5	11	65	35	46	41	24	50	5/8"-11UNC	115	15	0,6
LR08-25Z1	2,5	13	75	40	61	55	30	61	3/4"-10UNC	135	18	1,1
LR08-25Z2	2,5	13	75	40	61	55	30	61	7/8"-9UNC	135	18	1,1
LR08-40Z1	4,0	16	95	45	78	70	36	77	1"-8UNC	172	20	2,1
LR08-50Z1	5,0	21	130	60	95	85	45	93	1-1/4"-7UNC	223	25	4,5
LR08-80Z1	8,0	24	140	65	100	90	54	102	1-1/2"-6UNC	242	28	6,1

Sposób zawieszenia Method of lift										
Ilo punktów zawieszenia Number of legs	1	1	2	2	2	2	2	3-4	3-4	3-4
K t pochYLENIA < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zale no ci od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with diffrent sling methods									
LR08-06...	0,6	0,6	1,2	1,2	0,8	0,6	0,6	1,3	0,9	0,6
LR08-15...	1,5	1,5	3,0	3,0	2,1	1,5	1,5	3,2	2,2	1,5
LR08-25...	2,5	2,5	5,0	5,0	3,5	2,5	2,5	5,3	3,8	2,5
LR08-40...	4,0	4,0	8,0	8,0	5,6	4,0	4,0	8,4	6,0	4,0
LR08-50...	6,7	5,0	13,4	10,0	7,1	5,0	5,0	10,5	7,5	5,0
LR08-80...	10,0	8,0	20,0	16,0	11,2	8,0	8,0	16,8	12,0	8,0



LR09

Uwaga:

F- obciążenie dopuszczalne/ dla każdego punktu zaczepienia

* - standardowe wymiary rury

** - opcjonalne wymiary rury (w zakresie do długości L max. / H max.) - przy zamawianiu rury o wymiarach niestandardowych, należy określić jej długość (L)

*** - wykonane ze stali nierdzewnej

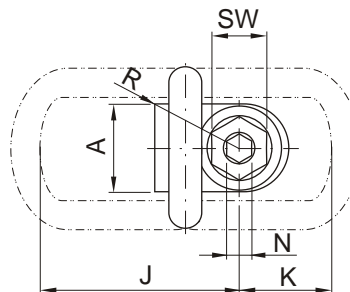
Note:

F- working load limit/ carrying capacity of each lifting point

* - standard dimension of bolt

** - optional dimension of bolt on request (L max. / H max. range only)- ordering optional one please specify the length (L)

*** - stainless steel












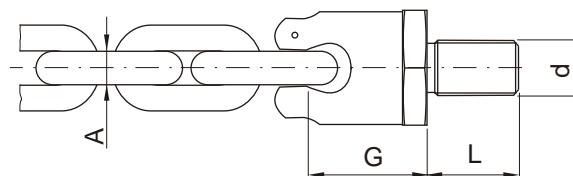
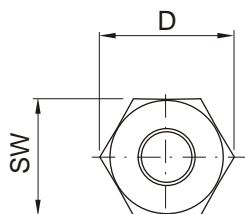
Możliwość przenoszenia pełnych obciążeń we wszystkich kierunkach.

Full load bearing capacity in any direction.

NR KAT.	F [t]	A	B	C	D	E	d	d1	G	waga weight [kg]
LR09-0308	0,3	30	54	34	35	40	M8	10	29	0,3
LR09-0610	0,63	30	54	34	36	39	M10	10	29	0,32
LR09-1012	1	32	54	34	37	38	M12	10	29	0,33
LR09-1516	1,5	33	56	36	46	39	M16	13,5	36	0,55
LR09-2520	2,5	50	82	54	55	55	M20	16,5	43	1,3
LR09-4024	4	50	82	54	58	66	M24	18	43	1,5
LR09-4027	4	60	103	65	78	69	M27	22,5	61	3,1
LR09-5030	5	60	103	65	80	67	M30	22,5	61	3,1
LR09-7036	7	60	103	65	72	74	M36	22,5	55	3,3
LR09-8036	8	77	122	82	100	97	M36	26,5	77	5,8
LR09-10042	10	77	122	82	103	94	M42	26,5	77	6,4
LR09-15042	15	95	156	100	113	109	M42	36	87	11,2
LR09-20048	20	95	156	100	117	105	M48	36	87	11,6
LR09-1016 R***	1	50	85	50	45	43	M16	16,5	38	1
LR09-2020 R***	2	50	85	50	46	42	M20	16,5	38	1,1
LR09-10Z1	1	32	54	34	38	37	1/2"-13UNC	10	29	0,33
LR09-15Z1	1,5	33	56	36	47	38	5/8"-11UNC	13,5	36	0,55
LR09-25Z1	2,5	50	82	54	56	54	3/4"-10UNC	16,5	43	1,3
LR09-25Z2	2,5	50	82	54	58	52	7/8"-9UNC	16,5	43	1,3
LR09-40Z1	4	50	82	54	61	64	1"-8UNC	16,5	43	1,5
LR09-50Z1	5	60	103	65	80	64	1-1/4"-7UNC	22,5	61	3,3

LR09









NR KAT.	H*	H** max.	J	K	L*	L** max.	N	SW	R	T	DB
LR09-0308	11	76	75	45	40	105	5	13	32	75	24
LR09-0610	16	96	75	45	45	125	6	17	32	75	24
LR09-1012	21	116	75	45	50	145	8	19	32	75	26
LR09-1516	24	149	87	47	60	185	10	24	38	85	30
LR09-2520	32	187	113	64	75	230	12	30	48	110	45
LR09-4024	37	222	130	78	80	265	14	36	48	125	45
LR09-4027	39	-	151	80	100	-	-	41	67	147	60
LR09-5030	49	279	151	80	110	340	17	46	67	147	60
LR09-7036	52	-	151	80	107	-	-	55	67	146	60
LR09-8036	63	223	205	110	140	300	22	55	85	197	70
LR09-10042	73	273	205	110	150	350	24	65	85	197	70
LR09-15042	63	263	230	130	150	350	24	65	100	222	85
LR09-20048	73	303	230	130	160	390	27	75	100	222	95
LR09-1016 R***	25	-	95	45	63	-	-	24	46	88	40
LR09-2020 R***	27	-	95	45	65	-	-	30	46	88	40
LR09-10Z1	22	-	75	45	51	-	-	3/4"	32	75	26
LR09-15Z1	24	-	87	47	60	-	-	15/16"	38	85	30
LR09-25Z1	28	-	113	64	71	-	-	1-1/8"	48	110	45
LR09-25Z2	27	-	113	64	70	-	-	1-5/16"	48	110	45
LR09-40Z1	41	-	130	78	84	-	-	1-1/2"	48	125	45
LR09-50Z1	41	-	151	80	102	-	-	1-7/8"	67	147	60
Sposób zawieszenia Method of lift											
Ilo punktów zawieszenia Number of legs	1	1	2	2	2	2	2	2	3-4	3-4	3-4
Kąt pochylenia < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.	
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zależności od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with different sling methods										
LR09-03...	0,3	0,3	0,6	0,6	0,4	0,3	0,3	0,6	0,4	0,3	
LR09-06...	0,6	0,6	1,2	1,2	0,8	0,6	0,6	1,3	0,9	0,6	
LR09-10...	1	1	2	2	1,4	1	1	2,1	1,5	1	
LR09-15...	1,5	1,5	3	3	2,1	1,5	1,5	3,1	2,2	1,5	
LR09-25...	2,5	2,5	5	5	3,5	2,5	2,5	5,2	3,7	2,5	
LR09-40...	4	4	8	8	5,6	4	4	8,4	6	4	
LR09-40...	4	4	8	8	5,6	4	4	8,4	6	4	
LR09-50...	5	5	10	10	7	5	5	10,5	7,5	5	
LR09-70...	7	7	14	14	9,8	7	7	14,7	10,4	7	
LR09-80...	8	8	16	16	11,2	8	8	16,8	12	8	
LR09-100...	10	10	20	20	14	10	10	21	15	10	
LR09-150...	15	15	30	30	21	15	15	31,5	22,5	15	
LR09-200...	20	20	40	40	28	20	20	42	30	20	
LR09-10...	1	1	2	2	1,4	1	1	2,1	1,5	1	
LR09-20...	2	2	4	4	2,8	2	2	4,2	3	2	

LR10

Uwaga:

F- obciążenie dopuszczalne/ dla każdego punktu zaczepienia
Używać wyłącznie łańcuchami do odpowiednich obciążeń (z atestem)

Note:

F- working load limit/ carrying capacity of each lifting point
Use any certified chains appropriate load limit

NR KAT.	F [t]	A	D	SW	L	G	d	waga weight [kg]		
LR10-0612	0,63	4	40	36	18	41	M12	0,25		
LR10-1516	1,5	6	46	41	25	50	M16	0,45		
LR10-2520	2,5	8	61	55	30	61	M20	0,95		
LR10-4024	4,0	10	78	70	36	77	M24	2,2		
LR10-5030	5,0	13	95	85	45	93	M30	3,5		
LR10-8036	8,0	16	100	90	54	102	M36	5,2		
LR10-06Z1	0,63	4	40	36	18	41	1/2"-13UNC	0,25		
LR10-15Z1	1,5	6	46	41	25	50	5/8"-11UNC	0,45		
LR10-25Z1	2,5	8	61	55	30	61	3/4"-10UNC	0,95		
LR10-25Z2	2,5	8	61	55	30	61	7/8"-9UNC	0,95		
LR10-40Z1	4,0	10	78	70	36	77	1"-8UNC	2,2		
LR10-50Z1	5,0	13	95	85	45	93	1-1/4"-7UNC	3,5		
LR10-80Z1	8,0	160	100	90	54	102	1-1/2"-6UNC	5,2		
Sposób zawieszenia Method of lift										
Ilo punktów zawieszenia Number of legs	1	1	2	2	2	2	2	3-4	3-4	3-4
K t pochylenia < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zale no ci od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with diffrent sling methods									
LR10-0612	0,6	0,6	1,2	1,2	0,8	0,6	0,6	1,3	0,9	0,6
LR10-1516	1,5	1,5	3,0	3,0	2,1	1,5	1,5	3,2	2,2	1,5
LR10-2520	2,5	2,5	5,0	5,0	3,5	2,5	2,5	5,3	3,8	2,5
LR10-4024	4,0	4,0	8,0	8,0	5,6	4,0	4,0	8,4	6,0	4,0
LR10-5030	6,7	5,0	13,4	10,0	7,1	5,0	5,0	10,5	7,5	5,0
LR10-8036	10,0	8,0	20,0	16,0	11,2	8,0	8,0	16,8	12,0	8,0



Uwaga:

F-obciążenie dopuszczalne/ dla każdego punktu zaczepienia

* - standardowa długość gwintu

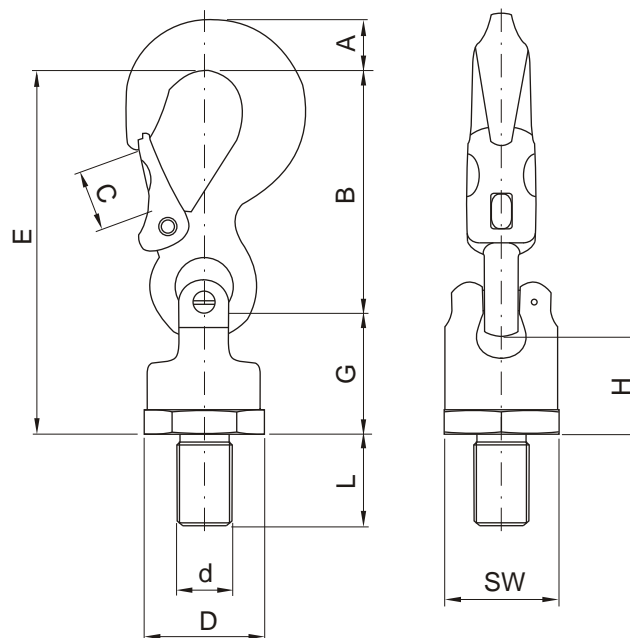
**-opcjonalna długość gwintu (w podanym przedziale) - przy zamawianiu ruro o wymiarach niestandardowych, należy określić jej długość (L)

Note:

F- working load limit/ carrying capacity of each lifting point

* - standard length of bolt thread

** - optional length of bolt thread (into this range only)- when ordering optional one please specify the length (L)

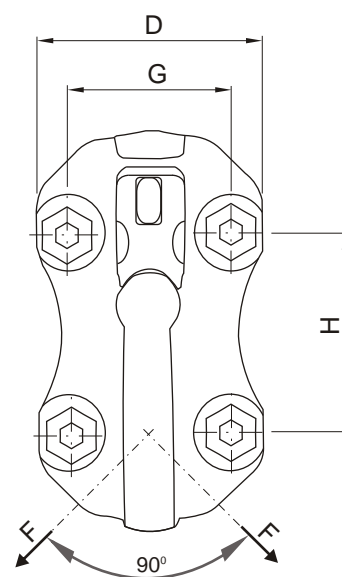
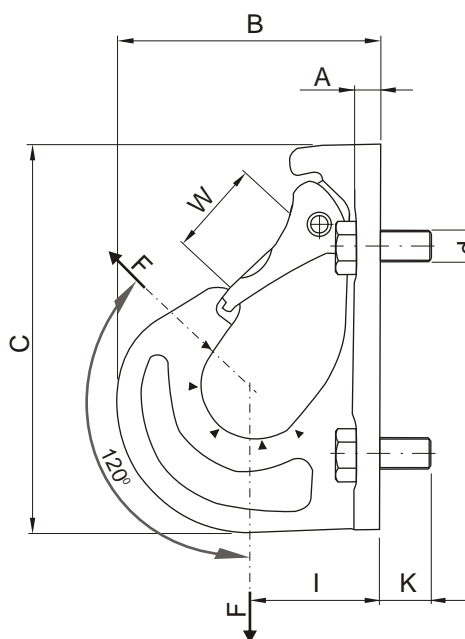


LR11

NR KAT.	F [t]	A	B	C	D	SW	L*	L**	G	d	E	H	waga weight [kg]
LR11-0612	0,63	13	75	18	40	36	18	19-145	41	M12	116	33	0,4
LR11-1516	1,5	20	97	25	46	41	24	26-180	50	M16	147	40	1,0
LR11-2520	2,5	28	126	30	61	55	30	31-200	61	M20	187	47	1,7
LR11-4024	4,0	36	150	35	78	70	36	37-255	77	M24	227	60	3,2
LR11-5030	5,0	37	174	40	95	85	45	46-330	93	M30	267	71	7,2
LR11-8036	8,0	49	208	48	100	90	54	55-300	102	M36	310	76	9,2
LR11-06Z1	0,63	13	75	18	40	36	18	19-145	41	1/2"-13UNC	116	33	0,4
LR11-15Z1	1,5	20	97	25	46	41	24	26-180	50	5/8"-11UNC	147	40	1,0
LR11-25Z1	2,5	28	126	30	61	55	30	31-200	61	3/4"-10UNC	187	47	1,7
LR11-25Z2	2,5	28	126	30	61	55	30	31-200	61	7/8"-9UNC	187	47	1,7
LR11-40Z1	4,0	36	150	35	78	70	36	37-255	77	1"-8UNC	227	60	3,2
LR11-50Z1	5,0	37	174	40	95	85	45	46-330	93	1-1/4"-7UNC	267	71	7,2
LR11-80Z1	8,0	49	208	48	100	90	54	55-300	102	1-1/2"-6UNC	310	76	9,2

Sposób zawieszenia Method of lift										
Ilość punktów zawieszenia Number of legs	1	1	2	2	2	2	2	2	3-4	3-4
Kąt pochyleń < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zależności od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with different sling methods									
LR11-06...	0,6	0,6	1,2	1,2	0,8	0,6	0,6	0,6	1,3	0,9
LR11-15...	1,5	1,5	3,0	3,0	2,1	1,5	1,5	1,5	3,2	2,2
LR11-25...	2,5	2,5	5,0	5,0	3,5	2,5	2,5	2,5	5,3	3,8
LR11-40...	4,0	4,0	8,0	8,0	5,6	4,0	4,0	4,0	8,4	6,0
LR11-50...	6,7	5,0	13,4	10,0	7,1	5,0	5,0	5,0	10,5	7,5
LR11-80...	10,0	8,0	20,0	16,0	11,2	8,0	8,0	8,0	16,8	12,0

LR12



Uwaga:

F- obciążenie dopuszczalne/ dla każdego punktu zaczepienia

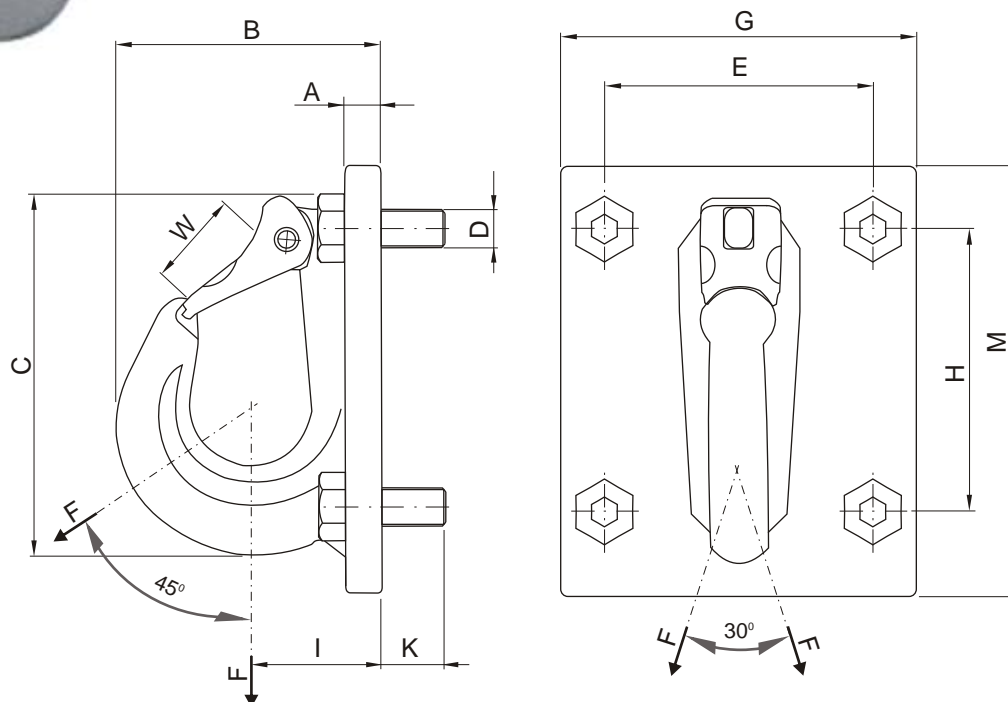
Note:

F- working load limit/ carrying capacity of each lifting point

NR KAT.	F [t]	A	B	C	D	G	H	I	K	W	d	waga weight [kg]
LR12-15	1,5	6,5	78	117	70	48	60	38	15	25	M10	0,78
LR12-25	2,5	7,5	101	148	85	60	75	49	18	30	M12	1,73
LR12-40	4,0	10	122	171	104	70	90	59	25	35	M16	3,0
LR12-65	6,5	12	156	208	120	85	110	70	30	40	M20	5,6

Sposób zawieszenia Method of lift										
Ilość punktów zawieszenia Number of legs	1	1	2	2	2	2	2	3-4	3-4	3-4
Kąt pochylenia < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	unsymm. niesym.	0°- 45°	45°- 60°	unsymm. niesym.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zależności od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with different sling methods									
LR12-15	1,5	1,5	3,0	3,0	2,1	1,5	1,5	3,15	2,25	1,5
LR12-25	2,5	2,5	5,0	5,0	3,5	2,5	2,5	5,25	3,75	2,5
LR12-40	4,0	4,0	8,0	8,0	5,6	4,0	4,0	8,4	6,0	4,0
LR12-65	6,5	6,5	13,0	13,0	9,1	6,5	6,5	13,65	9,75	6,5

LR13



Uwaga:

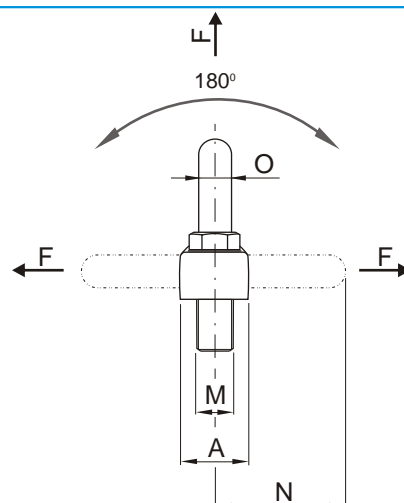
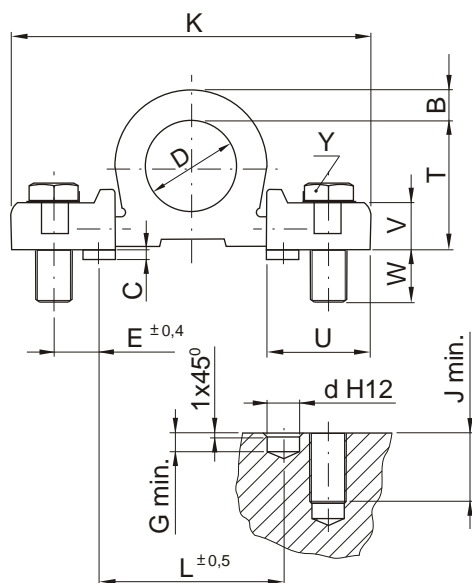
F-obciążenie dopuszczalne/ dla każdego punktu zaczepienia

Note:

F- working load limit/ carrying capacity of each lifting point

NR KAT.	F [t]	A	B	C	E	G	H	I	K	W	D	waga weight [kg]
LR13-10	10	15	141	200	120	170(100)	150	70	50	48	M24	6,4
LR13-16	16	20	187	272	150	210(120)	220	87	50	63	M24	10,4
LR13-20	20	20	195	276	150	240(120)	220	92	50	63	M24	17,5

Sposób zawieszenia Method of lift										
Ilość punktów zawieszenia Number of legs	1	1	2	2	2	2	2	3-4	3-4	3-4
Kąt pochylenia < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zależności od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with different sling methods									
LR13-10	10	10	20	20	14	10	10	21	15	10
LR13-16	16	16	32	32	22,4	16	16	33,6	24	16
LR13-20	20	20	40	40	28	20	20	42	30	20



LR14

Wypusty pozycjonuj ce zabezpieczaj rury mocuj ce przed wyginaniem i napr eniami cinaj cymi.

Nale y przestrzega w aúciwej kolejnoúci montaýuchwytu:

- w pierwszej kolejno ci wywierci otwory pod wypusty pozycjonuj ce.
- umie ci wypusty uchwytu w wywierconych otworach.
- gwintowa otwory mocuj ce .
- przykr ci uchwyt, uýywaj c úrub odpowiadaj cych klasie min. 10.9
- dopasowa podkładki przed dokr eniem i zabezpieczeniem rub. (moment obrotowy dokr cania 160 +/-20 Nm)

The position locks protect the fixing bolts against bending and shear stresses.

General rules for bolting:

- drill the holes for the position locks first.
- fix the ring block in the position lock.
- then tap the holes.
- screw down the ring use bolts wit a rating of at least 10.9
- fit washers before tightening and securing bolts (tightening torque 160+/-20Nm)

Uwaga:

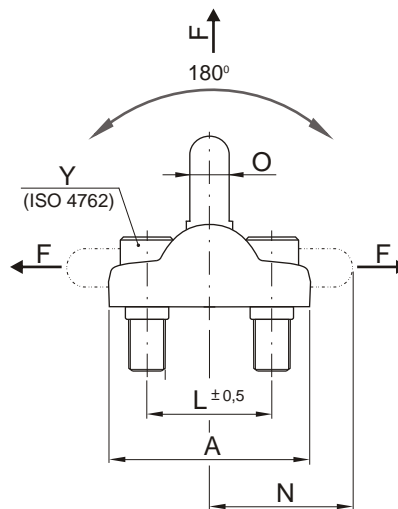
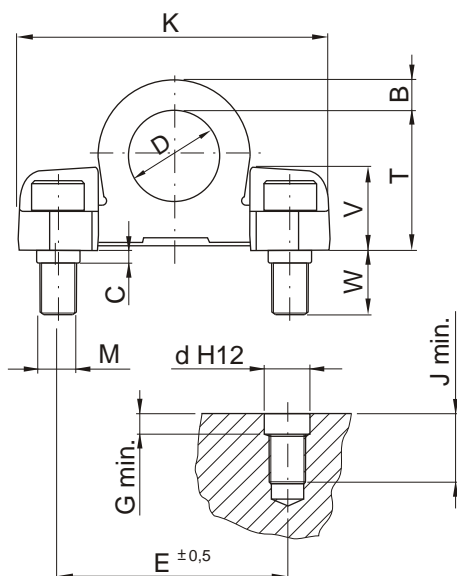
F-obci enie dopuszczalne/ dla ka dego punktu zaczepienia

Note:

F- working load limit/ carrying capacity of each lifting point

NR KAT.	F [t]	A	B	C	D	E	L	G	d	waga weight [kg]
LR14	3	34	16	5	48	22	92	6	18	0,9
NR KAT.	J	K	M	N	O	T	U	V	W	Y
LR14	30	178	M16	71	17	67	53	24	25	M16x50-10.9
Sposób zawieszenia Method of lift										
Ilo punktów zawieszenia Number of legs	1	1	2	2	2	2	2	2	3-4	3-4
K t pochylenia < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zale no ci od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with diffrent sling methods									
LR14	3	3	6	6	4,2	3	3	6,3	4,5	3

LR15



Wypusty pozycjonuj ce zabezpieczaj rury mocuj ce przed wyginaniem i napr eniami cinaj cymi.

Nale y przestrzega w aúciwej kolejnoúci montaýuchwytu:

- w pierwszej kolejno ci wywierci otwory pod wypusty pozycjonuj ce.
- umie ci wypusty uchwytu w wywierconych otworach.
- gwintowa otwory mocuj ce .
- przykr ci uchwyt, uýywaj c úrub oznaczonych cech RUD

The position locks protect the fixing bolts against bending and shear stresses.

General rules for bolting:

- drill the holes for the position locks first.
- fix the ring block in the position lock.
- then tap the holes.
- screw down the ring use only RUD marked bolts.

Uwaga:

F-obci enie dopuszczalne/ dla ka dego punktu zaczepienia

Note:

F- working load limit/ carrying capacity of each lifting point

NR KAT.	F [t]	A	B	C	D	E	L	G	d	waga weight [kg]
LR15-10	10	120	22	6	65	143	78	8	30	4,1
LR15-16	16	170	30	8	90	198	104	10	46	11,3

NR KAT.	J	K	M	N	O	T	V	W	Y
LR15-10	50	213	M20	100	25	103	54	43	M20x70-12.9
LR15-16	70	270	M30	134	32	134	67	63	M30x90-12.9

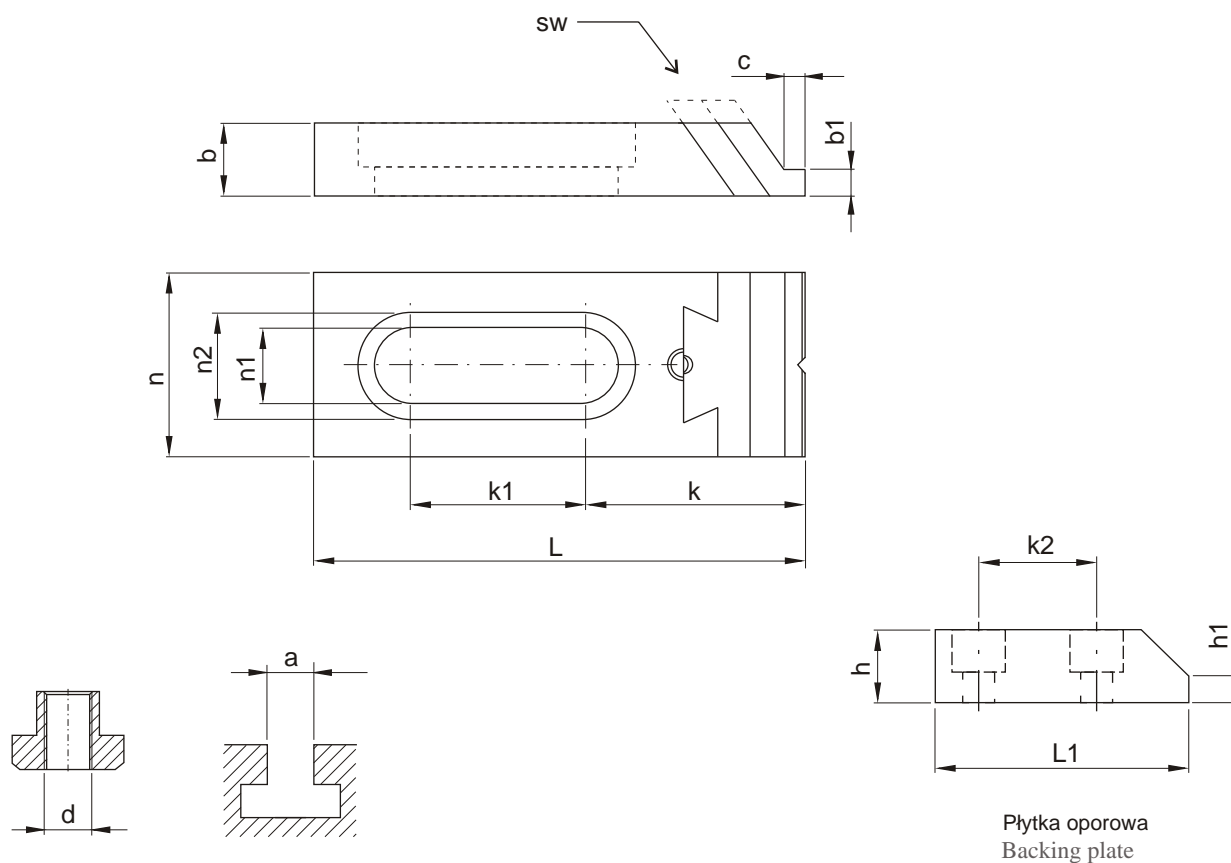
Sposób zawieszenia Method of lift										
Ilo punktów zawieszenia Number of legs	1	1	2	2	2	2	2	3-4	3-4	3-4
K t pochylenia < β Angle of inclination < β	0°	90°	0°	90°	0°- 45°	45°- 60°	niesym. unsymm.	0°- 45°	45°- 60°	niesym. unsymm.
NR KAT.	Max. waga "G" [t] dla wszystkich punktów zaczepienia w zale no ci od sposobu zawieszenia Max. weight of load "G" [t] for all power point types with diffrent sling methods									
LR15-10	10	10	20	20	14,0	10	10	21,0	15,0	10
LR15-16	16	16	32	32	22,4	16	16	33,6	24,0	16



Elementy mocujące Clamping components

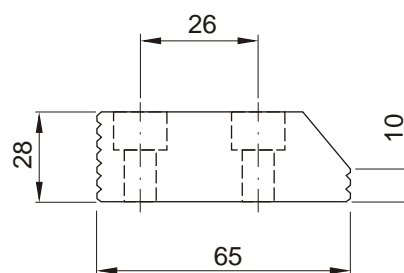
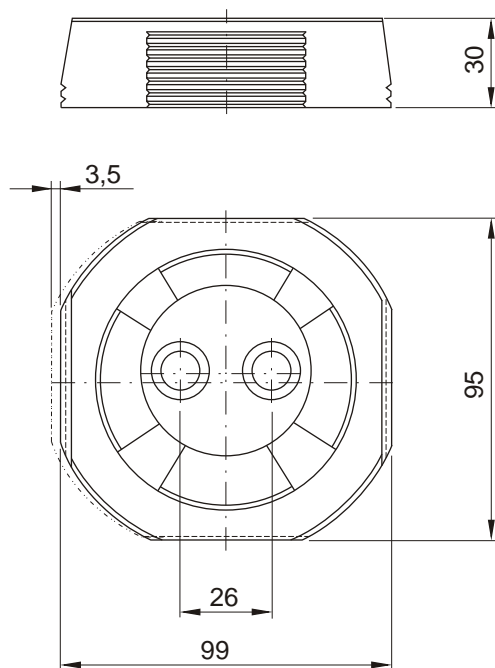
	str./page		str./page		str./page
	LT011 Z.30 Docisk boczny-zestaw Sliding side wrench set		LT131 Z.42 Łapa dociskowa widlasta Forked support		LT251 Z.55 Śruba do rowków teowych Bolt for T-slos
	LT021 Z.31 Docisk boczny-zestaw Armed side press set		LT141 Z.43 Łapa dociskowa ząbkowana Straight support		LT26 Z.56 Nakrętka teowa Nuts for T-slot
	LT031 Z.32 Docisk boczny-zestaw Graded side wrench set		LT152 Z.44 Łapa dociskowa L-type clamp		LT27 Z.57 Nakrętka teowa Nuts for T-slot
	LT041 Z.33 Docisk boczny-zestaw Graded side wrench set		LT161 Z.45 Łapa dociskowa Moving head (hange base)		LT28 Z.58 Nakrętka teowa - półfabrykat Nuts for T-slot - no hole
	LT051 Z.34 Docisk boczny Side clamp		LT17 Z.46 Podpórka śrubowa Booster with top		LT291 Z.59 Podkładka podtrzymująca Support for lifting washer
	LT061 Z.35 Docisk boczny T-slot side wrench		LT18 Z.47 Podpórka śrubowa Supported bolt		LT30 Z.60 Nakrętka kołnierзова Nut
	LT07 Z.36 Jednostka mocująca Combined clamp		LT191 Z.48-49 Podpórka śrubowa Booster		LT31 Z.60 Nakrętka wysoka Long nut
	LT08 Z.37 Jednostka mocująca Combined clamp		LT201 Z.50 Podpórka stopniowa Stepped booster		LT321 Z.61 Nakrętka Hexagon nut
	LT091 Z.38 Łapa dociskowa Combined sliding clamp		LT211 Z.51 Podpórka ząbkowana Step booster		LT331 Z.61 Podkładka Thick washer
	LT101 Z.39 Łapa dociskowa odsadzona Angled-clamp		LT221 Z.52 Podpórka ząbkowana Heel blocks		LT34 Z.62 Zgarniacz T-slot scraper
	LT111 Z.40 Łapa dociskowa prosta Straight clamp		LT23 Z.53 Śruba dwustronna Stud		
	LT121 Z.41 Łapa dociskowa widlasta z czopem Forked clamp with pin end		LT241 Z.54 Śruba dwustronna Hexagon bolt		

LT011

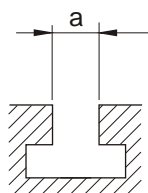
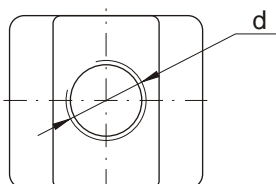
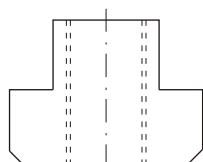


NR KAT.	d	a	c	L	b	b1	n	sw	n1	n2	k	k1	k2	L1	h	h1	waga weight [kg]
LT011-1214	M12	14	10	142	23	8	37	6	12,5	19	65	54	26	65	23	10	3,650
LT011-1216		16									28				11	4,300	
LT011-1218		18	14	145	28	10	48	8			74	54	26	65	28	11	4,300
LT011-1220		20															
LT011-1222		22															

LT021

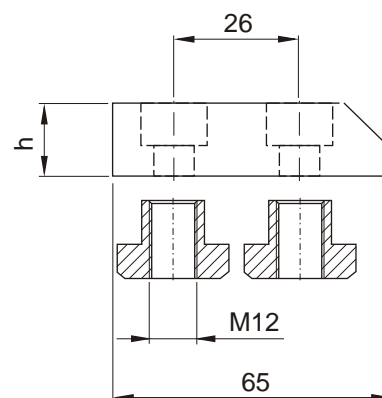
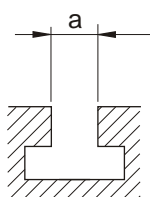
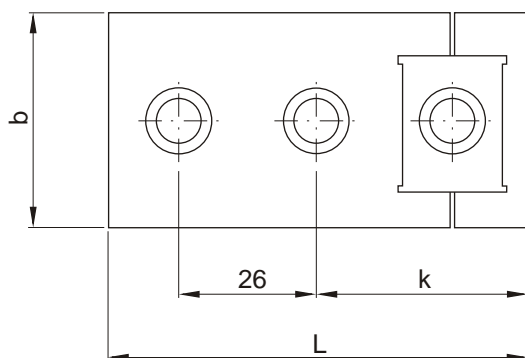
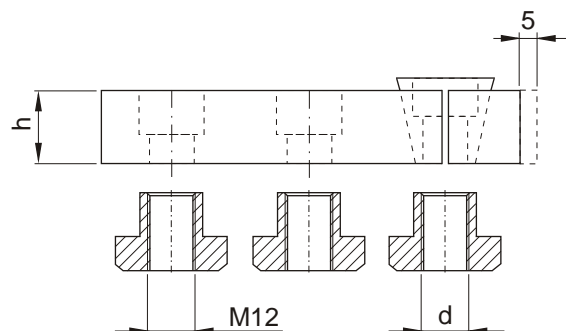


Płytkę oporową
Backing plate

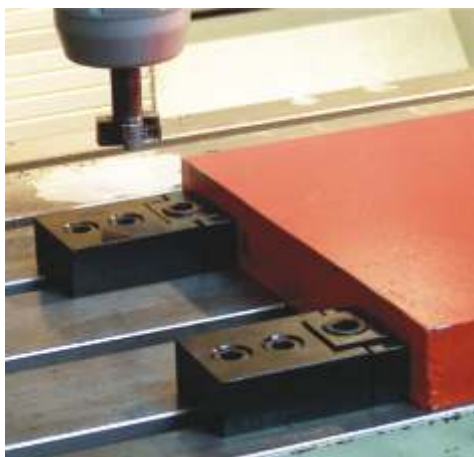


NR KAT.	d	a	waga weight [kg]
LT021-1214	M12	14	7,61
LT021-1216		16	7,63
LT021-1218		18	7,66
LT021-1220		20	7,71
LT021-1222		22	7,77
LT021-1224		24	7,87
LT021-1228		28	7,99

LT031

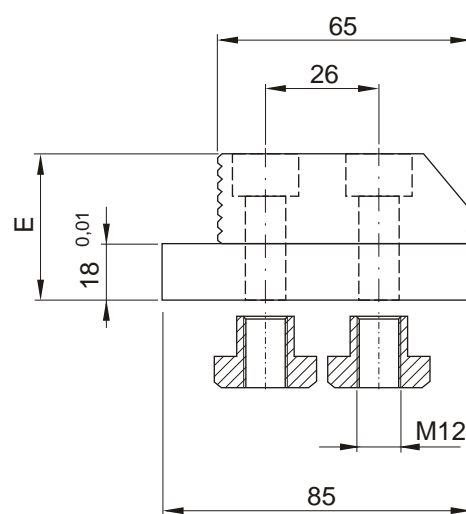
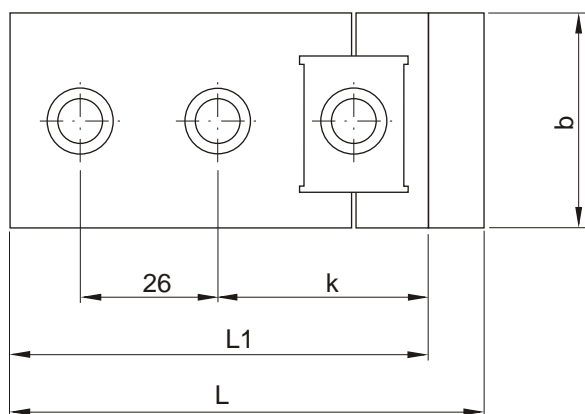
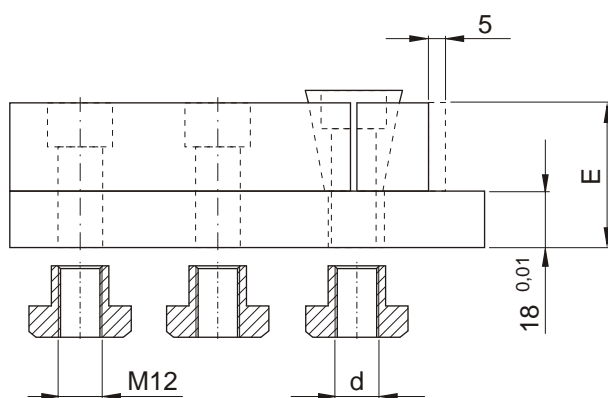


Płytki oporowa
Backing plate

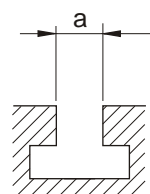


NR KAT.	d	a	h	b	L	k	waga weight [kg]
LT031-1214	M12	14	23	47	90	47	3,6
LT031-1216		16					
LT031-1418	M14	18	28	57	95	52	4,2
LT031-1420		20					
LT031-1422		22					
LT031-1424		24					
LT031-1428		28					

LT041

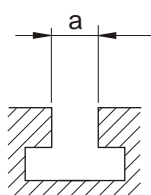
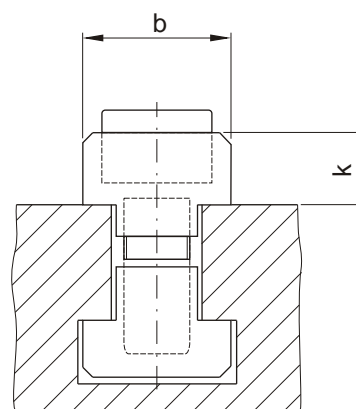
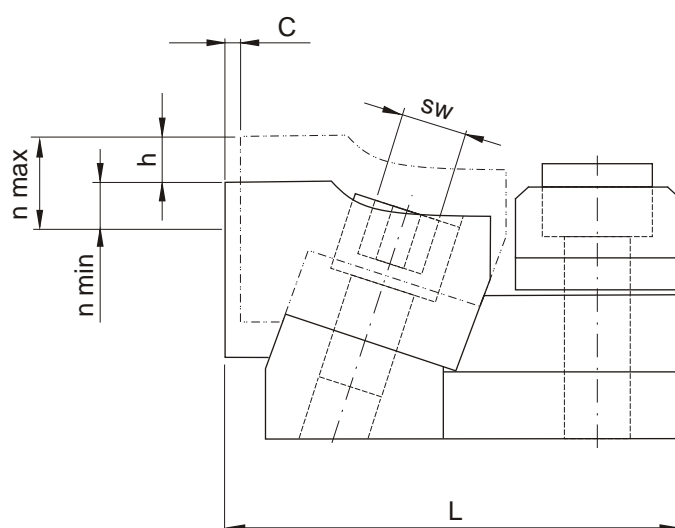


Płytki oporowa
Backing plate



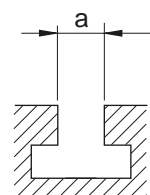
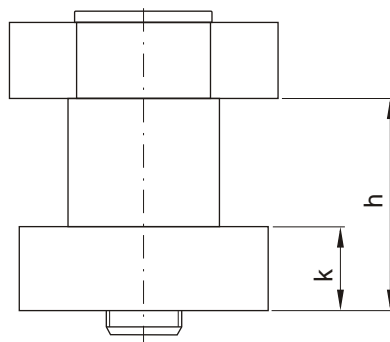
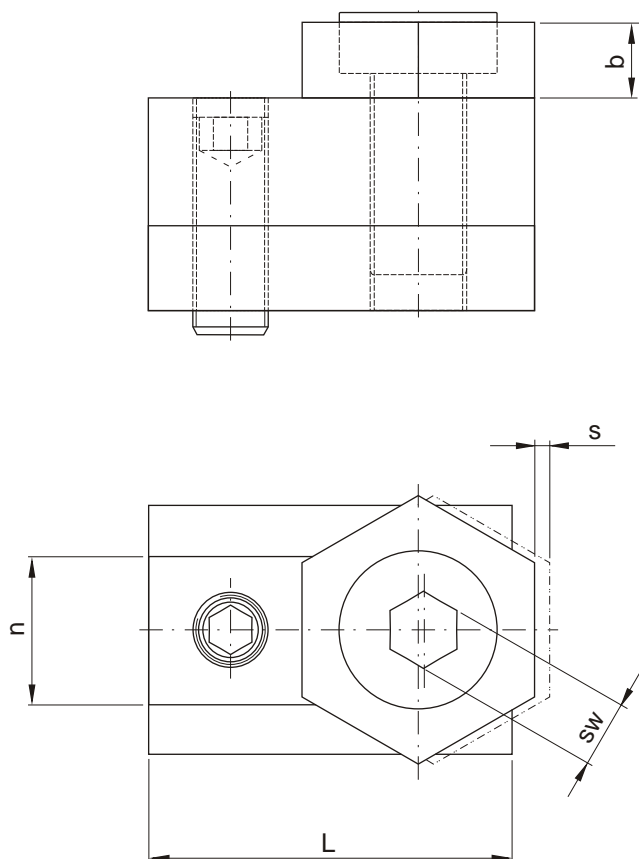
NR KAT.	d	a	L	L1	k	b	E	waga weight [kg]
LT041-14	M12	14	110	90	47	47	41	7,00
LT041-16		16						
LT041-18	M14	18	115	95	52	57	46	8,80
LT041-20		20						
LT041-22		22						
LT041-24		24						
LT041-28		28						

LT051



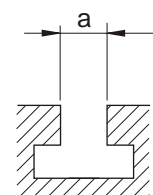
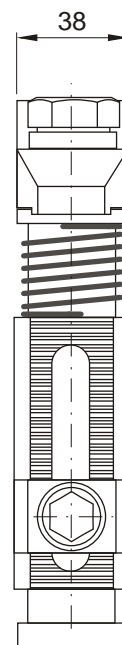
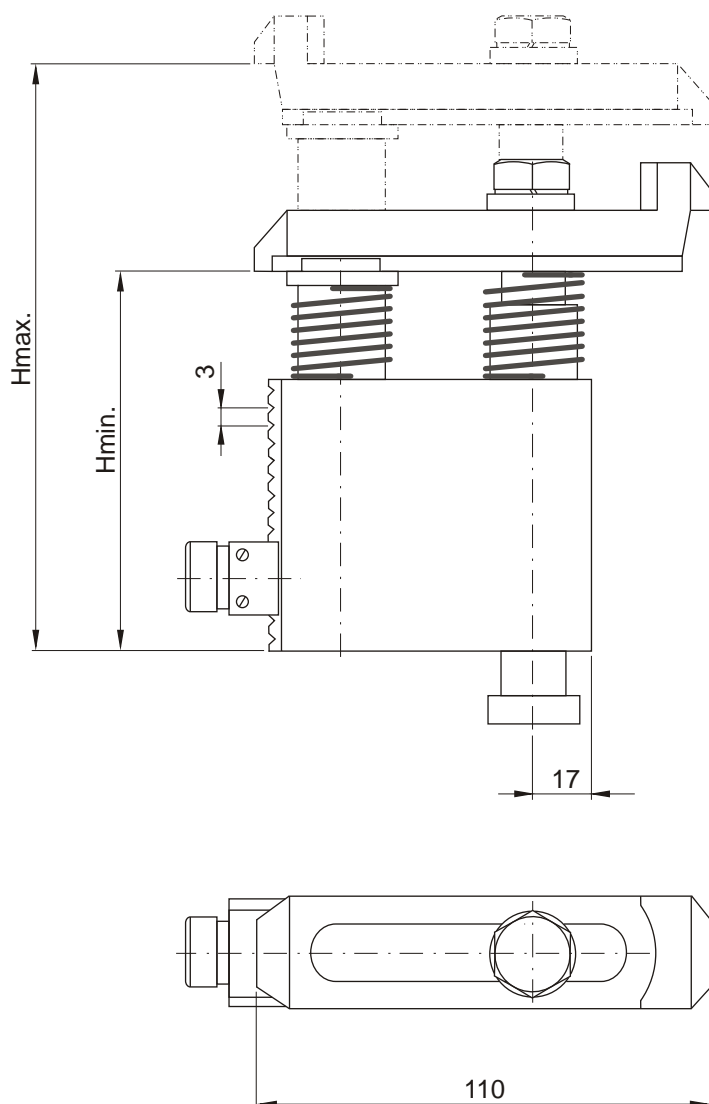
NR KAT.	a	L	c	n		h	b	k	sw	waga weight [kg]
				min	max					
LT051-12	12	46	2	2	6	4	18	7	5	0,12
LT051-14	14	51	2,5	2,5	7,5	5	22	8	6	0,20
LT051-16	16	61	3	2,5	8,5	6	25	9	6	0,29
LT051-18	18	67	3	2	8	6	28	10	8	0,44
LT051-20	20	78	4	2,5	11	8,5	32	12	10	0,65
LT051-22	22	87	4,5	2,5	12	9,5	35	14	10	0,84

LT061



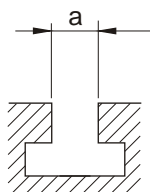
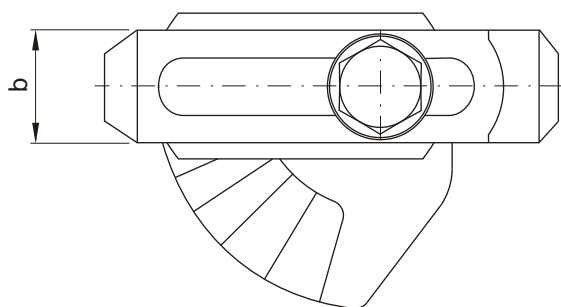
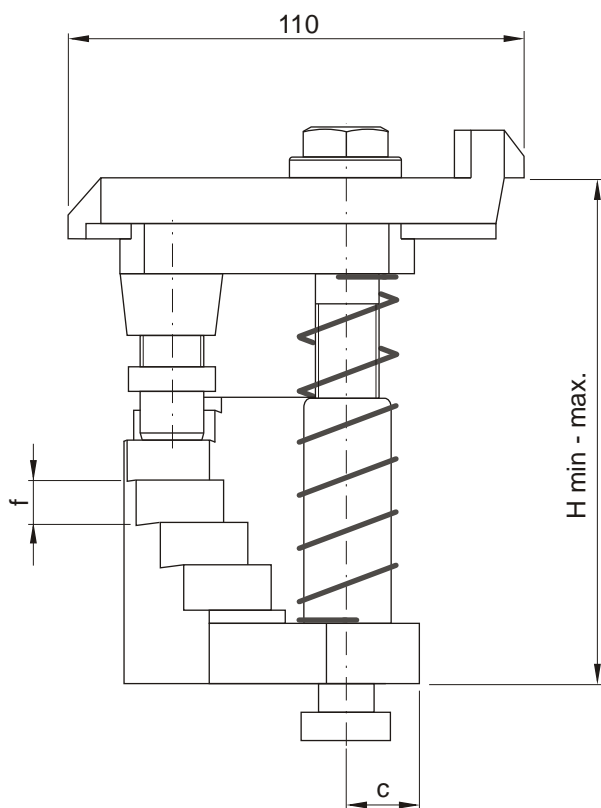
NR KAT.	a	L	s	h	n	k	b	sw	waga weight [kg]
LT061-0608	8	23	1,4	9,5	7,7	5	5	4	0,20
LT061-0610	10	23	1,4	14	9,7	5	5	4	0,27
LT061-0812	12	28	1,2	15	11,7	6	5	5	0,34
LT061-1014	14	30	1,7	22	13,7	8	7	8	0,40
LT061-1016	16	30	2	22	15,7	9	10	8	0,58
LT061-1218	18	35	2	28	17,7	10	10	8	0,65
LT061-1420	20	40	2,5	32	19,7	12	13	10	0,72
LT061-1622	22	45	2,5	38	21,7	14	13	12	0,79

LT07



NR KAT.	a	H min-max.	waga weight [kg]
LT07-14110	14	55 - 110	1,5
LT07-16110	16		
LT07-18110	18		
LT07-20110	20		
LT07-22110	22	70 - 125	1,75
LT07-14125	14		
LT07-16125	16		
LT07-18125	18		
LT07-20125	20	120 - 175	2,5
LT07-22125	22		
LT07-14175	14		
LT07-16175	16		
LT07-18175	18	170 - 225	3,2
LT07-20175	20		
LT07-22175	22		
LT07-14225	14		
LT07-16225	16	170 - 225	3,2
LT07-18225	18		
LT07-20225	20		
LT07-22225	22		

LT08

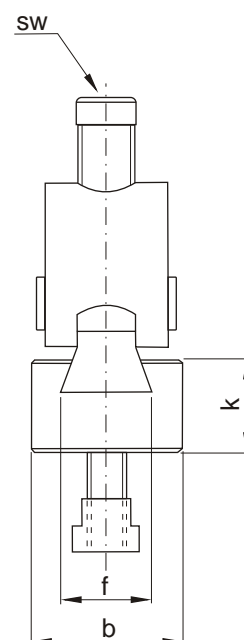
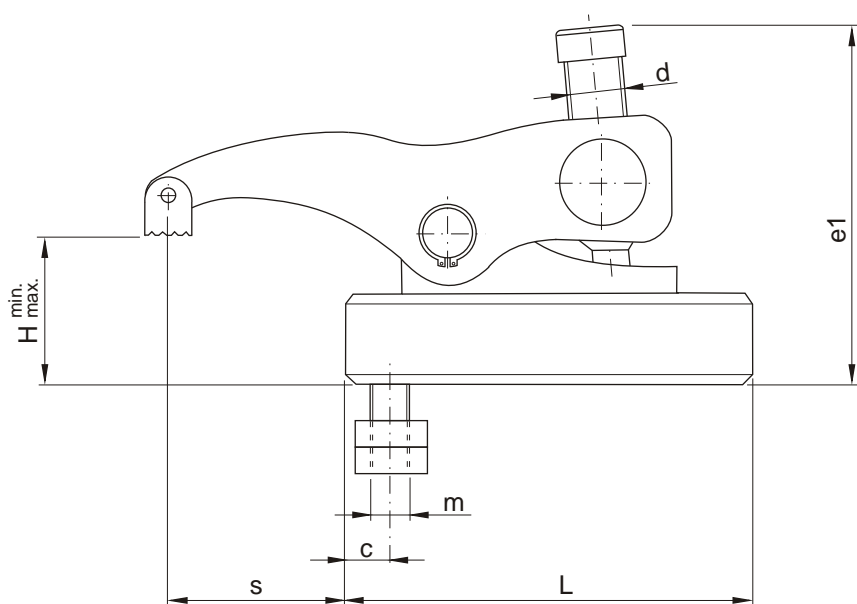
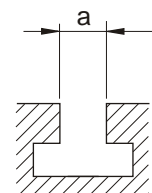


Przykład zamówienia:
Order example :

LT08-12512 (H max.=125, a=14)

NR KAT.	H min.	H max.	b	f	c	a	waga weight [kg]
LT08-080	40	80	38	5	16	14-16-18-20-22	0,95
LT08-125	70	125		10			1,40
LT08-175	120	175					2,60
LT08-225	170	225					23

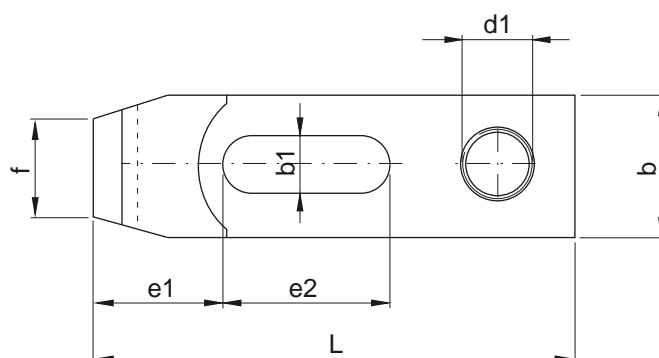
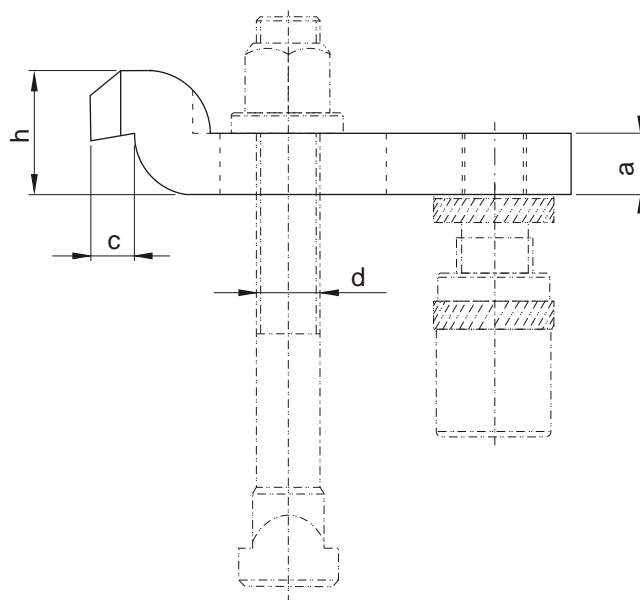
LT091



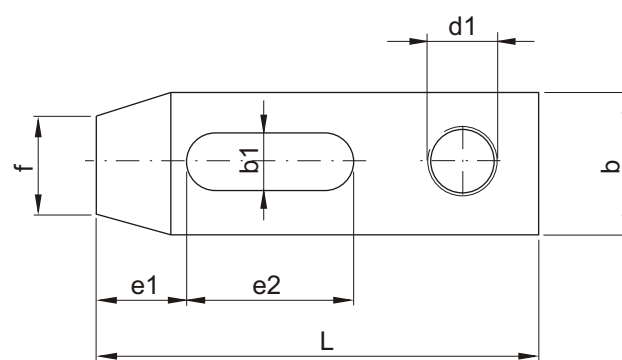
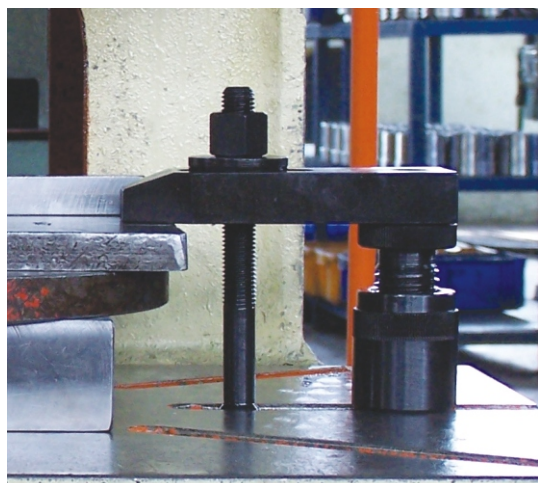
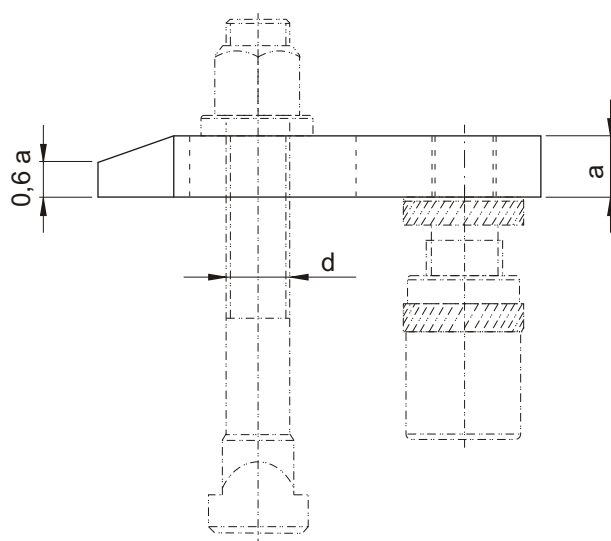
NR KAT.	a	m	k	b	e1	s	d	L	c	f	sw	H		waga weight [kg]
												min.	max.	
LT091-1214	14	M12	28,5	47	113	20÷88	M18	128	16	28	10	0	60	2,6
LT091-1216	16													
LT091-1218	18													
LT091-1220	20													
LT091-1222	22													
LT091-1618	18	M16	28,5	53	125	23÷93	M20	140	18	32	12	0	62	3,8
LT091-1620	20													
LT091-1622	22													
LT091-1624	24													
LT091-1628	28													

DIN 6316

LT101



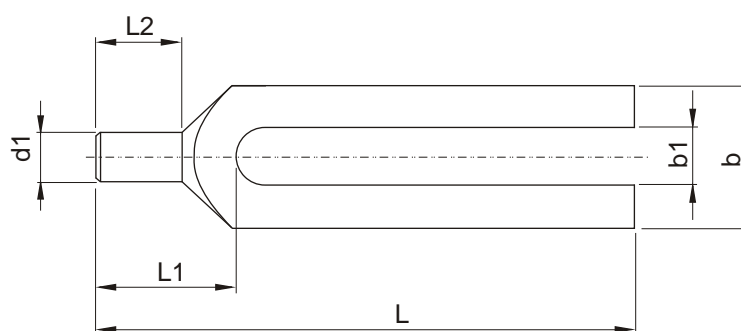
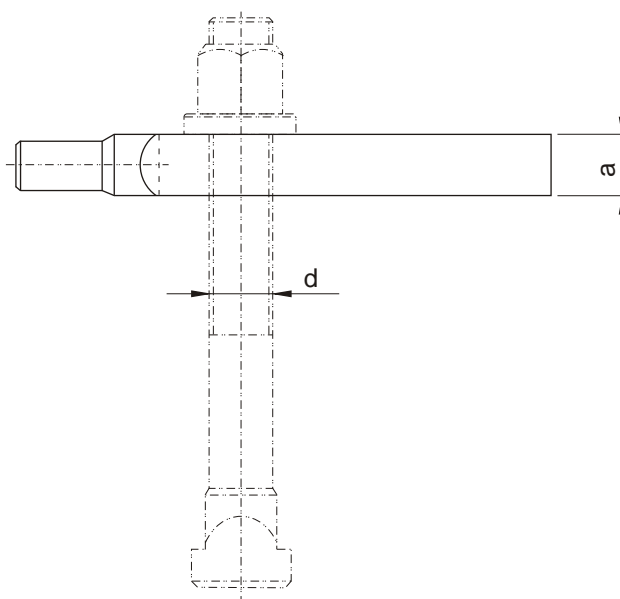
NR KAT.	d	b	L	a	h	f	c	d1	b1	e1	e2	waga weight [kg]
LT101-06060	M6	20	60	10	20	10	8	M8	6,6	20	20	0,08
LT101-08080	M8	25	80	12	24	12	9	M8	9	25	25	0,16
LT101-10100	M10	30	100	15	30	15	12	M10	11	32	32	0,30
LT101-12125	M12-M14	40	125	20	40	20	16	M12	14,5	40	40	0,57
LT101-16125	M16-M18	50	125	25	50	25	20	M16	18,5	49	40	0,98
LT101-16160			160								50	1,15
LT101-20160	M20-M22	60	160	30	60	30	24	M20	22,5	55	55	1,80
LT101-20200			200								70	2,15
LT101-24160	M24	70	160	35	70	35	28	M24	26	53	55	2,10
LT101-24200			200							72	60	2,56
LT101-24250			250							72	80	3,10
LT101-30250	M30	80	250	40	80	40	40	M24	33	91	80	5,40
LT101-30315			315	50	100						100	9,00

LT111


NR KAT.	d	b	L	a	f	d1	b1	e1	e2	waga weight [kg]			
LT111-06050	M6	20	50	10	8	M8	6,6	10	20	0,06			
LT111-08060	M8	25	60	12	10	M8	9	13	22	0,11			
LT111-10080	M10	30	80	15	12	M10	11	15	30	0,20			
LT111-12100	M12-M14	40	100	20	14	M12	14,5	21	40	0,55			
LT111-12125			125						50	0,55			
LT111-16125	M16-M18	50	125	25	18	M16	18,5	26	45	1,10			
LT111-16160			160						65	1,33			
LT111-20160	M20-M22	60	160	30	22	M20	22,5	30	60	2,00			
LT111-20200			200						80	2,20			
LT111-20250		70	250	35					100	2,50			
LT111-24160	M24	70	160	30	26	M24	26	35	60	1,90			
LT111-24200			200	35					80	2,50			
LT111-24250			250	100					3,75				
LT111-24315	M30	80	315	40	35		33	45	130	4,20			
LT111-30250			250	40	34				100	4,80			
LT111-30315			315	50					130	7,60			
LT111-36400	M36-M42	100	400	60	43		43	100	150	17,80			

DIN 6315C

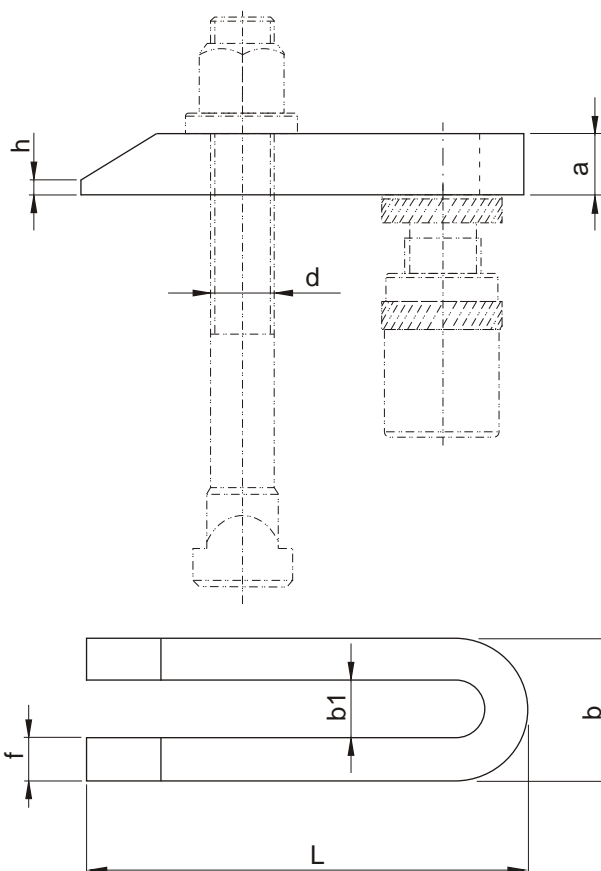
LT121



NR KAT.	d	L	b	a	L1	L2	b1	d1	waga weight [kg]
LT121-08100	M8	100	30	15	30	18	9	12	0,22
LT121-10125	M10	125		20	36	24	11	16	0,35
LT121-12160	M12-M14	160	40	25	45	30	14,5	20	0,77
LT121-12200		200							0,98
LT121-16200	M16-M18	200	50	30	55	36	18,5	24	1,45
LT121-16250		250							1,75
LT121-20250	M20-M22	250	60	40	65	45	22,5	30	2,75
LT121-20315		315							3,45
LT121-24250	M24	250	70	40	80	56	26	38	3,20
LT121-24315		315							4,10
LT121-30315	M30	315	80	50	85	56	34	45	5,70
LT121-30400		400							7,00

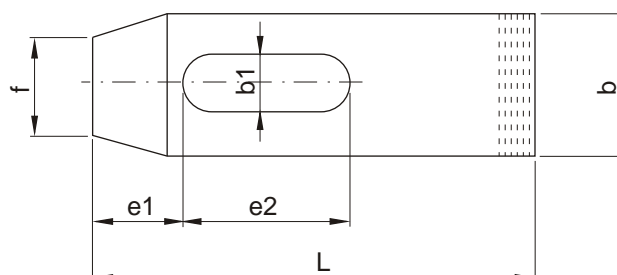
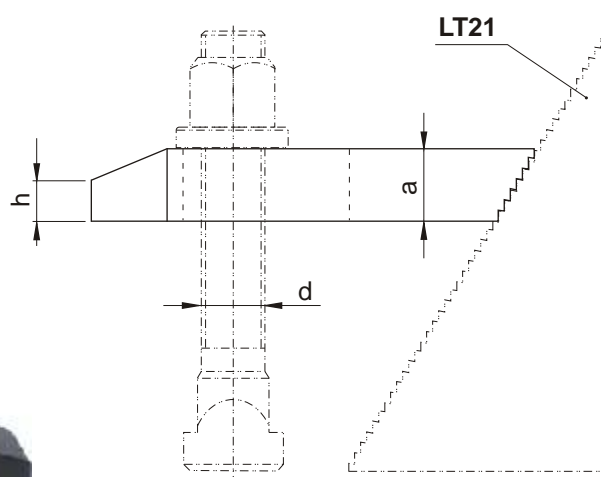
DIN 6315B

LT131

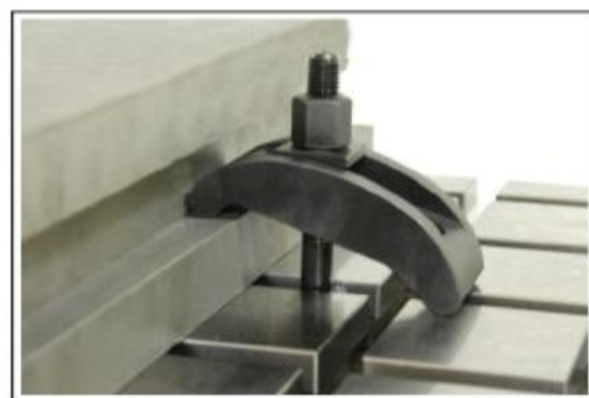
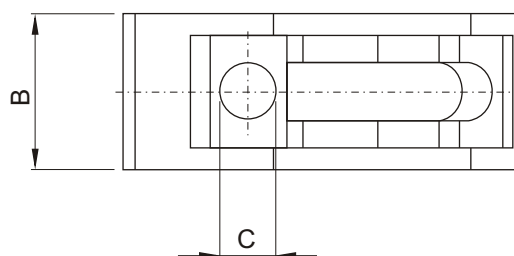
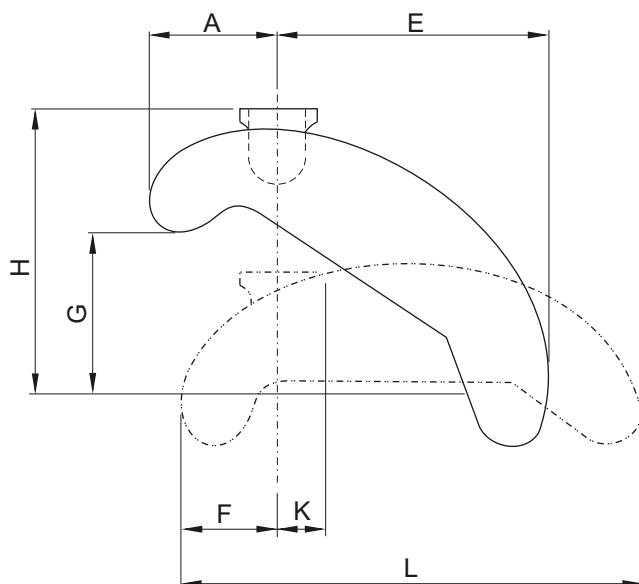


NR KAT.	d	L	b	f	b1	a	h	waga/weight [kg]
LT131-06060	M6	60	19	6	6,6	12	3	0,06
LT131-08080	M8	80	25	8	9	15	4	0,14
LT131-10100	M10	100	31	10	11	20	5	0,30
LT131-12125	M12-M14	125	38	12	14,5	25	6	0,57
LT131-12160		160						0,73
LT131-12200		200						0,91
LT131-16160	M16-M18	160	48	15	18,5	30	8	1,08
LT131-16200		200				40	10	1,36
LT131-16250		250				50	12	2,25
LT131-20200	M20-M22	200	52	15	22,5	40	10	1,80
LT131-20250		250	62	20		50		3,00
LT131-20315		315				60		3,85
LT131-20500		500				80		7,50
LT131-24200	M24	200	66	20	26	40	10	2,40
LT131-24250		250				50		3,00
LT131-24315		315				60		3,85
LT131-24500		500				80		7,60
LT131-30250	M30	250	74	20	33	50	12	3,70
LT131-30315		315				60		4,75
LT131-30400		400				80		6,10
LT131-30600		600				100		9,20
LT131-301000		1000				120		28,00
LT131-36400	M36	400	100	30	40	60	12	11,00
LT131-36600		600				80		16,50
LT131-36600	M36-M42	600	123	40	43	80	12	29,60

LT141

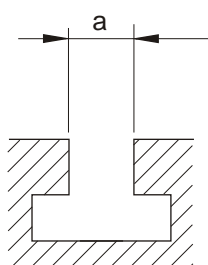
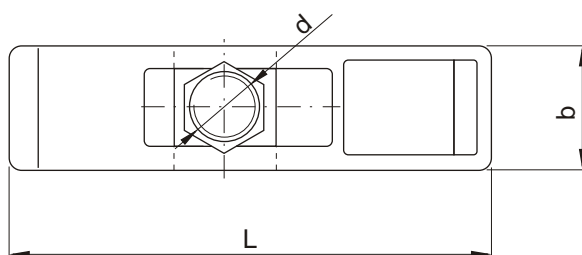
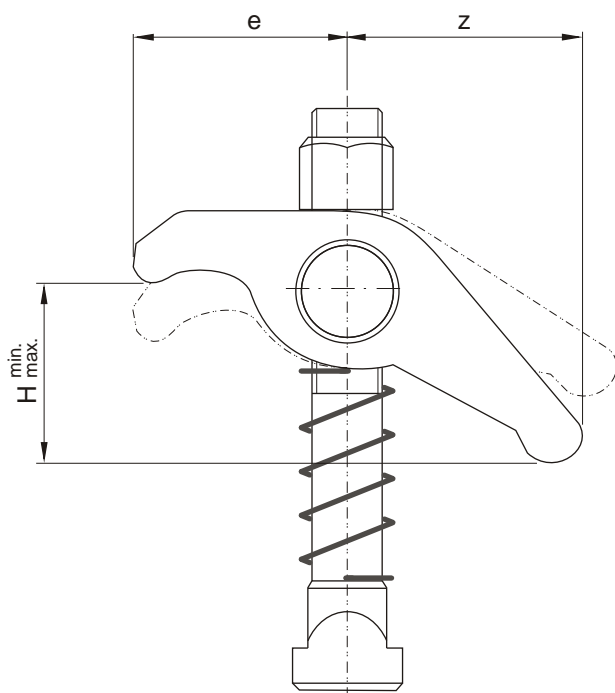


NR KAT.	d	b	L	a	f	h	b1	e1	e2	waga weight [kg]
LT141-06050	M6	20	50	10	8	6	6,6	10	20	0,05
LT141-06080			80						30	0,08
LT141-08060	M8	25	60	12	10	7,2	9	13	22	0,09
LT141-08100			100						45	0,17
LT141-10080	M10	30	80	15	12	9	11	15	30	0,19
LT141-10100			100						45	0,34
LT141-12100	M12-M14	40	100	20	14	12	14,5	21	45	0,45
LT141-12125			125						55	0,60
LT141-16125	M16-M18	50	125	25	18	15	18,5	26	55	0,80
LT141-16160			160						65	1,40

LT152


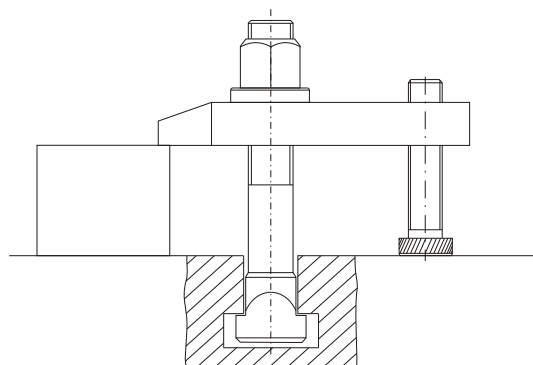
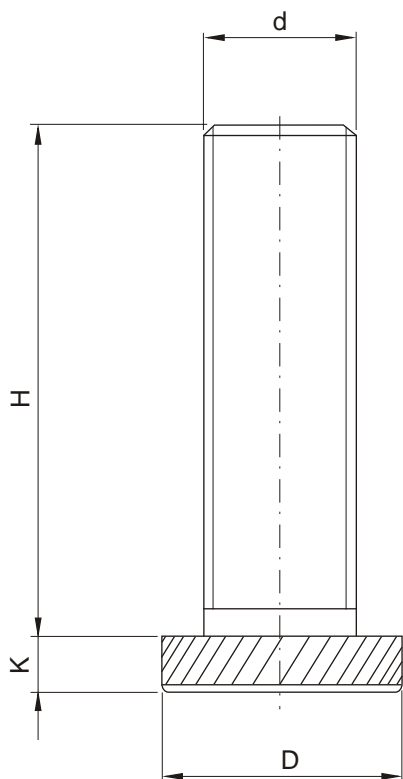
NR KAT.	d	A	B x L	C	E	F	G	H	K	waga/weight [kg]
LT152-12	M10-M12	28	40x90	13	48	23	0-40	52	14	0,28
LT152-16	M14-M16	38	58x130	17	74	29	0-60	80	18	0,79
LT152-20	M18-M20	46	68x140	21	80	32	0-70	98	20	1,20
LT152-24	M22-M24	52	78x175	25	100	39	0-90	110	24	1,70

LT161



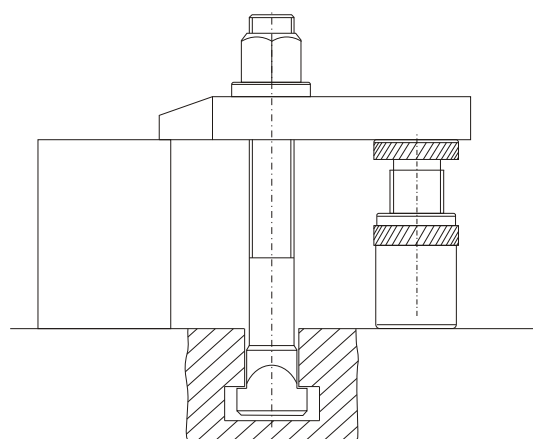
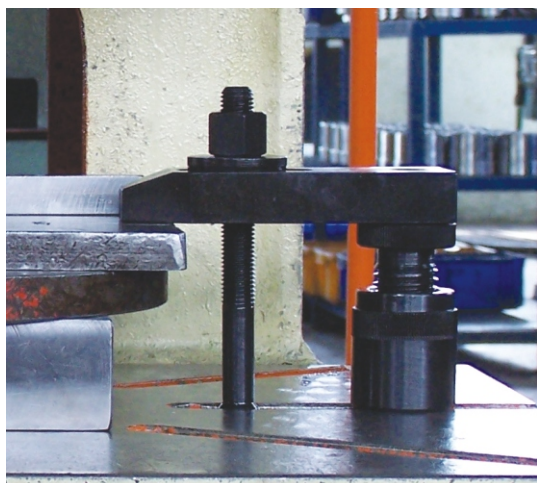
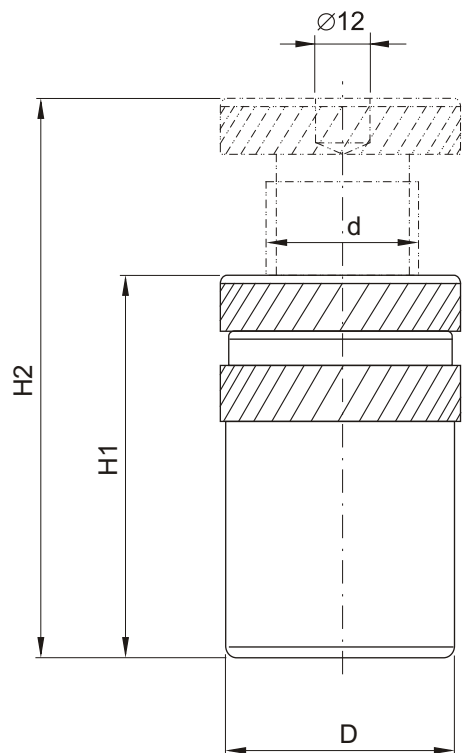
NR KAT.	L	b	e	z	H min - max.	d	a	waga weight [kg]
LT161-10	109	40	48	61	0 - 45	M10	12	0,71
LT161-12						M12	14	
LT161-14	129	50	57	72	0 - 55	M14	16	1,20
LT161-16						M16	18	

LT17



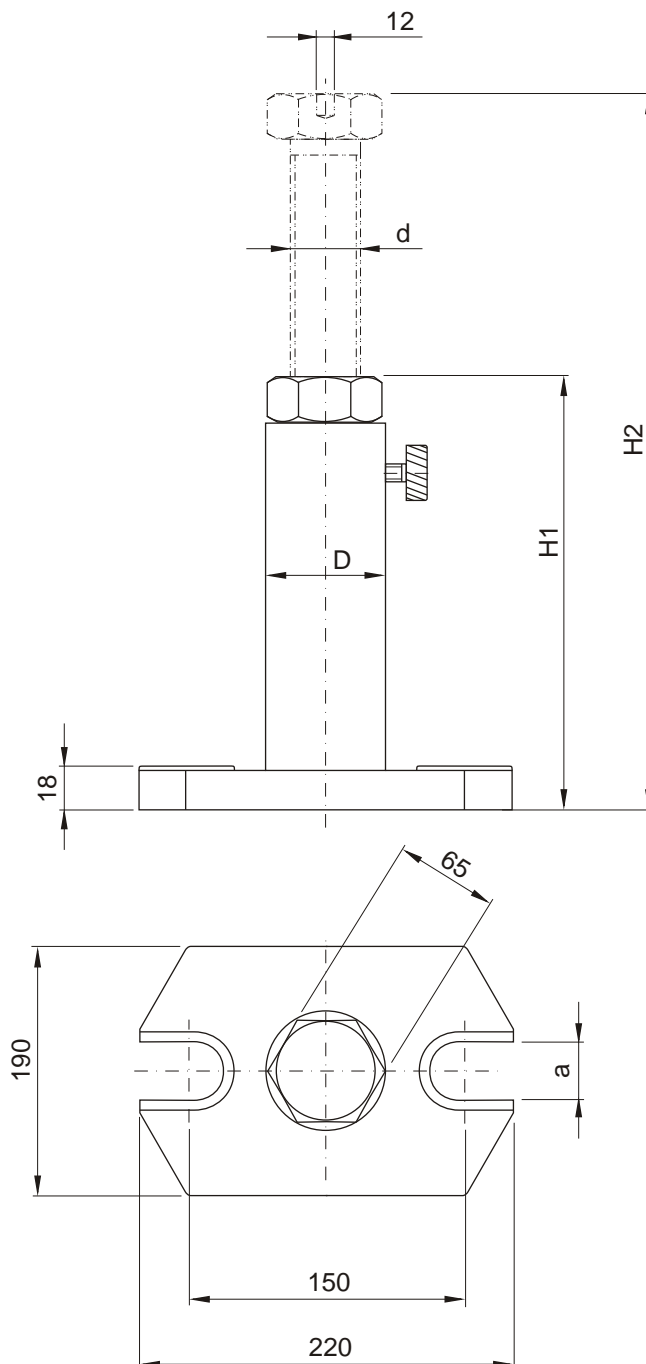
NR KAT.	d	D	H	K	waga weight [kg]
LT17-10042	M10	30	42	8	0,06
LT17-12050	M12	36	50	10	0,10
LT17-12095			95		0,15
LT17-16062	M16	45	62	13	0,20
LT17-16097			97		0,25
LT17-16117			117		0,30
LT17-20062			M20		50
LT17-20097	97	0,40			
LT17-20117	117	0,43			
LT17-24081	M24		81	14	
LT17-24116			116		0,85

LT18



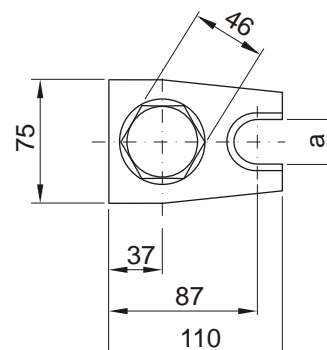
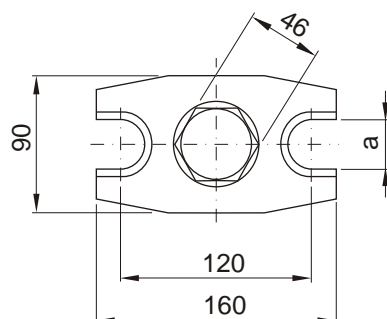
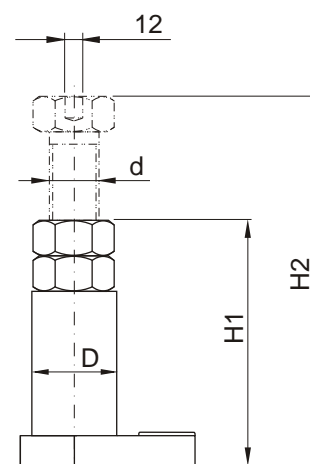
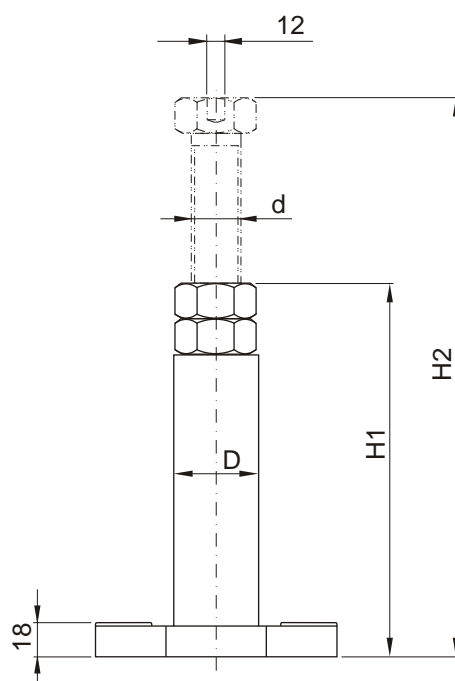
NR KAT.	d	D	H1	H2	waga weight [kg]
LT18-16023	M16	34	23	30	0,14
LT18-16040			40	60	0,25
LT18-30042	Tr30x4	50	42	52	0,55
LT18-30050			50	70	0,62
LT18-30070			70	100	0,90
LT18-30100			100	140	1,60
LT18-30140	Tr30x6	54	140	220	2,40
LT18-30210		58	210	330	3,90
LT18-30260		68	260	430	6,70

LT191



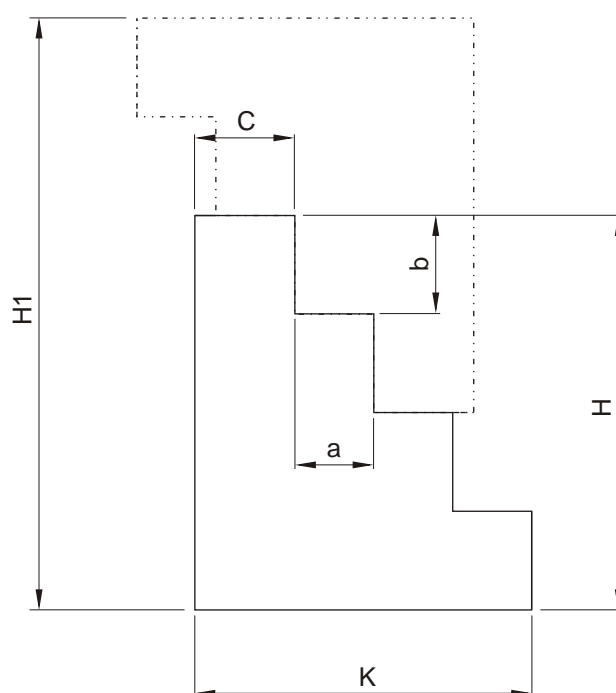
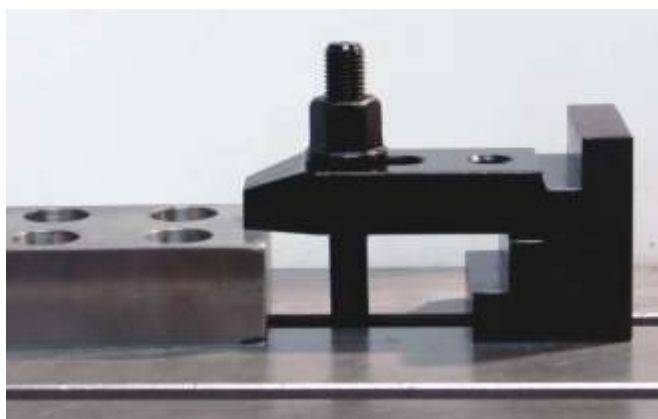
NR KAT.	d	H1	H2	D	a	waga weight [kg]
LT191-701	Tr40x7	200	300	70	26	8,0
LT191-702		280	460			12,0
LT191-703		430	750			12,6
LT191-704		710	1250			16,5

LT191



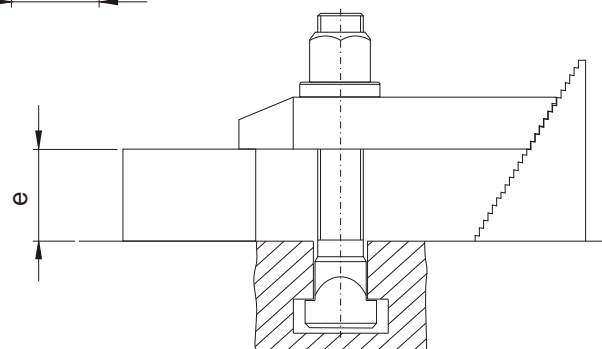
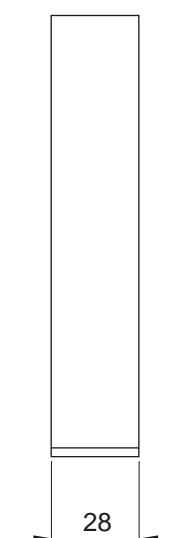
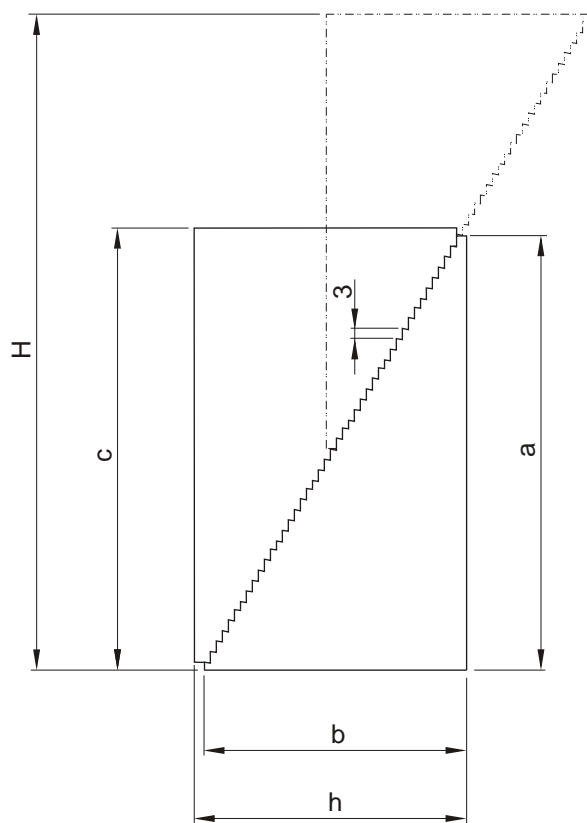
NR KAT.	d	H1	H2	D	a	waga weight [kg]
LT191-501	Tr30x6	100	140	50	18	1,75
LT191-502		140	200			2,20
LT191-503		200	320		22	3,40
LT191-504		320	550			4,85

LT201



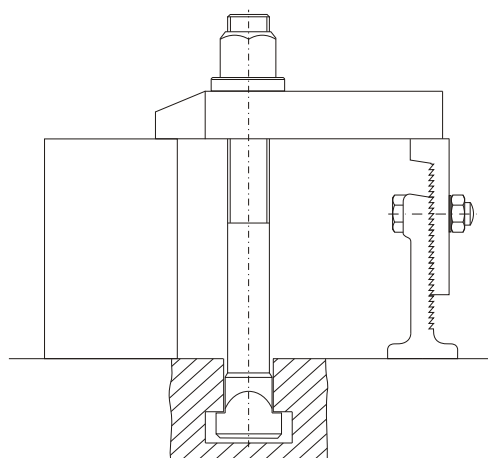
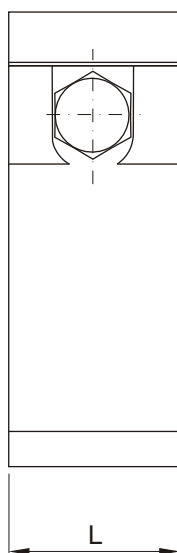
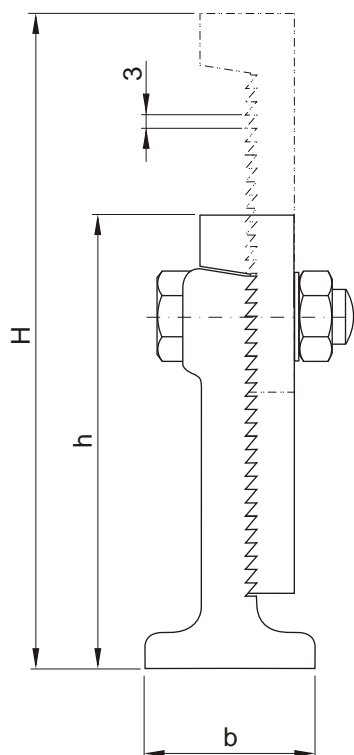
NR KAT.	K	L	H	H1	a	b	c	waga weight [kg]
LT201-01	37	50	52	78	8	13	13	1,00
LT201-02	47	60	64	96	10	16	17	1,80
LT201-03	57	70	76	114	13	19	18	3,00

LT211



NR KAT.	a	b	c	h	H	e	waga weight [kg]
LT211-01	57	35	60	37	85	0 - 40	0,49
LT211-02	73	45	76	48	112	0 - 60	0,78
LT211-03	90	55	93	58	139	0 - 75	1,16
LT211-04	108	64	111	66	165	0 - 90	1,50

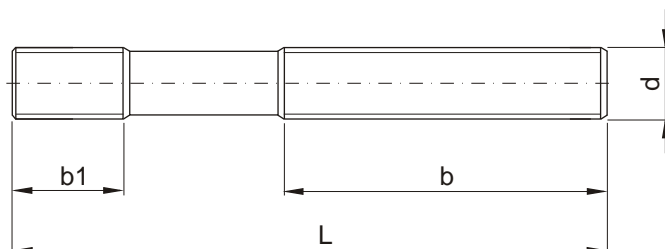
LT221



NR KAT.	L	b	h	H	waga weight [kg]
LT221-01	50	50	110	150	1,3
LT221-02	60	60	150	220	2,6
LT221-03	80	80	220	340	6,0

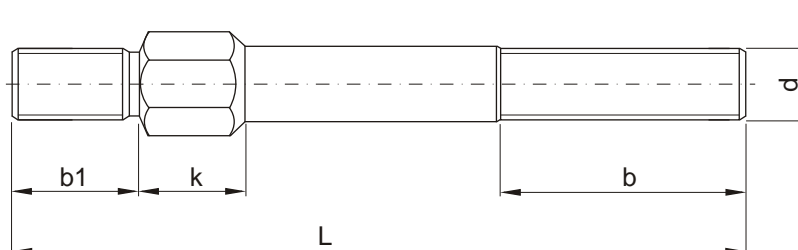
DIN 6379

LT23



NR KAT.	d	L	b	b1	waga weight [kg]	NR KAT.	d	L	b	b1	waga weight [kg]
LT23-08040	M8	40	20	11	0,010	LT23-20080	M20	80	32	27	0,190
LT23-08063		63	40		0,020	LT23-20100		100	60		0,220
LT23-08080		80	50		0,025	LT23-20125		125	70		0,260
LT23-08100		100	63		0,030	LT23-20160		160	100		0,330
LT23-08125		125	75		0,035	LT23-20200		200	125		0,410
LT23-08160		160	100		0,045	LT23-20250		250	160		0,510
LT23-10050	M10	50	25	13	0,025	LT23-20315	M22	315	200	31	0,640
LT23-10063		63	32		0,035	LT23-20400		400	250		0,815
LT23-10080		80	50		0,040	LT23-20500		500	315		1,020
LT23-10100		100	75		0,050	LT23-22100		100	45		0,270
LT23-10125		125	75		0,060	LT23-22160		160	100		0,430
LT23-10160		160	100		0,080	LT23-22200		200	125		0,500
LT23-10200	M12	200	125	15	0,100	LT23-22250		250	160	35	0,670
LT23-12050		50	25		0,035	LT23-22315	M24	315	180		0,790
LT23-12063		63	32		0,045	LT23-22400		400	250		1,070
LT23-12080		80	50		0,055	LT23-24100		100	45		0,290
LT23-12100		100	63		0,070	LT23-24125		125	70	43	0,380
LT23-12125		125	75		0,090	LT23-24160		160	100		0,470
LT23-12160	M14	160	100	17	0,115	LT23-24200	M30	200	125		0,580
LT23-12200		200	125		0,140	LT23-24250		250	160		0,730
LT23-14063		63	32		0,080	LT23-24315		315	200		0,920
LT23-14080		80	50		0,090	LT23-24400		400	250		1,160
LT23-14100		100	63		0,095	LT23-24500		500	315		1,450
LT23-14125		125	75		0,120	LT23-24630		630	315		1,650
LT23-14160	M16	160	100	19	0,150	LT23-30125	M36	125	56	51	0,600
LT23-14200		200	125		0,195	LT23-30200		200	125		0,950
LT23-14250		250	160		0,240	LT23-30315		315	200		1,500
LT23-16063		63	32		0,085	LT23-30500		500	315		2,360
LT23-16080		80	50		0,105	LT23-30700		700	400		3,300
LT23-16100		100	63		0,130	LT23-301000		1000	400		4,700
LT23-16125	M18	125	75	23	0,160	LT23-36160	M42	160	80	59	1,100
LT23-16160		160	100		0,220	LT23-36200		200	125		1,340
LT23-16200		200	125		0,280	LT23-36250		250	160		1,710
LT23-16250		250	160		0,325	LT23-36315		315	200		2,150
LT23-16315		315	180		0,425	LT23-36400		400	250		2,700
LT23-16500		500	315		0,650	LT23-36500		500	315		3,450
LT23-18080	M18	80	50	23	0,130	LT23-36700		700	400		4,750
LT23-18100		100	60		0,160	LT23-42315		315	200		2,950
LT23-18125		125	75		0,200	LT23-42400		400	250		3,750
LT23-18160		160	100		0,260	LT23-42500		500	315		4,690
LT23-18200		200	125		0,320						
LT23-18250		250	150		0,400						
LT23-18315		315	180		0,500						

LT241



Uwaga:

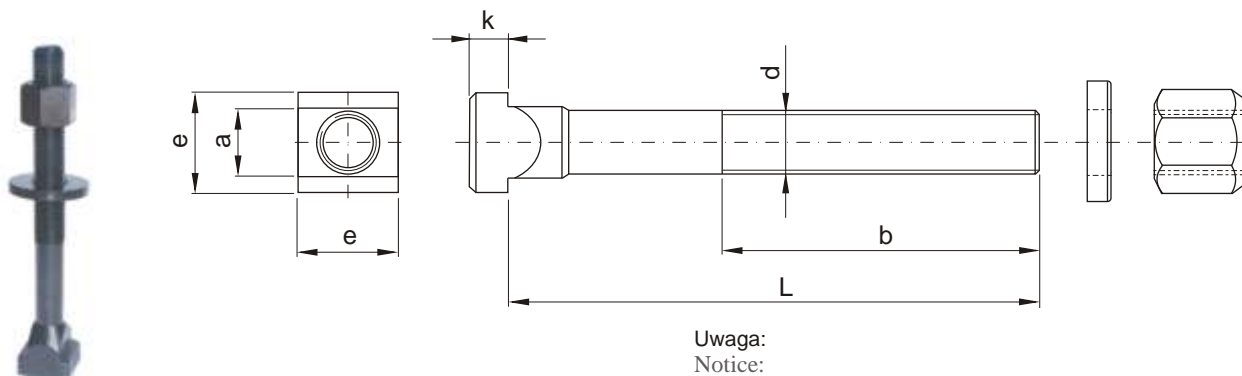
Notice:

rubka dostarczana jest w komplecie z nakrętką i podkładką.
The bolt supplied in set with nut and washer

NR KAT.	d	L	b	b1	s	k	waga weight [kg]
LT241-12130	M12	130	65	24	14	14	0,160
LT241-12160		160	90				0,185
LT241-14130	M14	130	65	28	15	15	0,216
LT241-14160		160	90				0,246
LT241-16140	M16	140	70	32	17	16	0,296
LT241-16160		160	95				0,340
LT241-18150	M18	150	70	35	19	19	0,395
LT241-18180		180	95				0,450
LT241-20150	M20	150	70	40	22	22	0,500
LT241-20180		180	95				0,565
LT241-22150	M22	150	70	40	24	22	0,650
LT241-22180		180	95				0,900
LT241-24170	M24	170	75	47	27	22	0,850
LT241-24205		205	105				1,026
LT241-24250		250	140				1,200

DIN 787

LT251



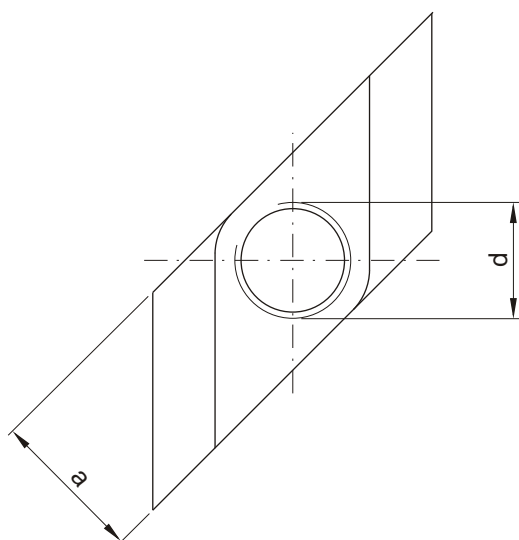
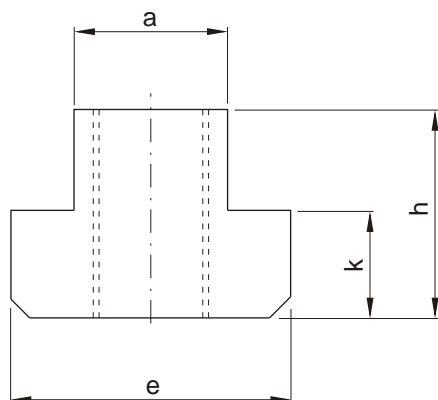
Uwaga:

Notice:

rubka dostarczana jest w komplecie z nakrętką i podkładką.
The bolt supplied in set with nut and washer

NR KAT.	d	L	b	a	e	k	waga weight [kg]	NR KAT.	d	L	b	a	e	k	waga weight [kg]
LT251-10050	M10	50	35	11,7	18	7	0,100	LT251-20080	M20	80	55	21,7	35	14	0,530
LT251-10063		63	40				0,120	LT251-20100		100	65				0,610
LT251-10080		80	55				0,130	LT251-20125		125	85				0,670
LT251-10100		100	60				0,150	LT251-20160		160	110				0,710
LT251-10125		125	75				0,175	LT251-20200		200	125				0,720
LT251-10160		160	90				0,225	LT251-20250		250	150				0,890
LT251-10200		200	120				0,270	LT251-20315		315	190				1,050
LT251-12050	M12	50	35	13,7	22	8	0,130	LT251-22080	M22	80	55	23,7	40	16	0,900
LT251-12063		63	45				0,145	LT251-22100		100	65				0,960
LT251-12080		80	55				0,155	LT251-22125		125	85				1,020
LT251-12100		100	65				0,165	LT251-22160		160	110				1,250
LT251-12125		125	75				0,180	LT251-22200		200	125				1,400
LT251-12160		160	100				0,210	LT251-22250		250	150				1,600
LT251-12200		200	120				0,240	LT251-22315		315	190				1,700
LT251-14063	M14	63	45	15,7	25	9	0,200	LT251-24100	M24	100	70	27,7	44	18	0,980
LT251-14080		80	55				0,220	LT251-24125		125	85				1,010
LT251-14100		100	65				0,230	LT251-24160		160	110				1,150
LT251-14125		125	75				0,280	LT251-24200		200	125				1,240
LT251-14160		160	100				0,310	LT251-24250		250	150				1,500
LT251-14200		200	120				0,350	LT251-24315		315	190				1,730
LT251-14250		250	150				0,400	LT251-24400		400	240				1,860
LT251-16063	M16	63	45	17,7	28	10	0,260	LT251-24500	M30	500	290	35,6	54	22	2,310
LT251-16080		80	55				0,305	LT251-30125		125	80				1,860
LT251-16100		100	65				0,315	LT251-30160		160	110				1,950
LT251-16125		125	85				0,360	LT251-30200		200	135				2,230
LT251-16160		160	100				0,390	LT251-30250		250	150				2,550
LT251-16200		200	125				0,448	LT251-30315		315	200				2,950
LT251-16250		250	150				0,560	LT251-30500		500	300				3,950
LT251-18080	M18	80	55	19,7	32	12	0,420	LT251-36160	M36	160	100	41,6	65	26	3,220
LT251-18100		100	65				0,460	LT251-36250		250	175				3,840
LT251-18125		125	85				0,490	LT251-36400		400	250				4,950
LT251-18160		160	110				0,580	LT251-36600		600	340				6,500
LT251-18200		200	125				0,610	LT251-42160	M42	160	100	47,6	75	30	6,000
LT251-18250		250	150				0,700	LT251-42250		250	175				6,900
LT251-18315		315	190				0,930	LT251-42400		400	250				8,100

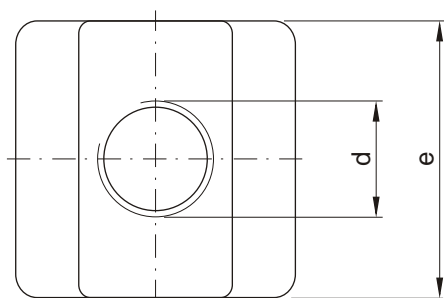
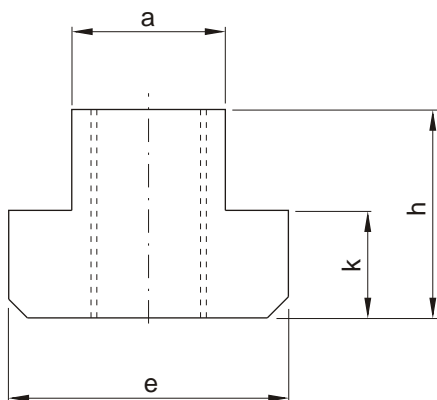
LT26



NR KAT.	d	a	e	h	k	waga weight [kg]
LT26-08	M8	9,7	15	12	6	0,015
LT26-10	M10	11,7	18	14	7	0,020
LT26-12	M12	13,7	22	16	8	0,025
LT26-14	M14	15,7	25	18	9	0,035
LT26-16	M16	17,7	28	20	10	0,045
LT26-18	M18	19,7	32	24	12	0,070
LT26-20	M20	21,7	35	28	14	0,100
LT26-24	M24	27,7	44	36	18	0,220

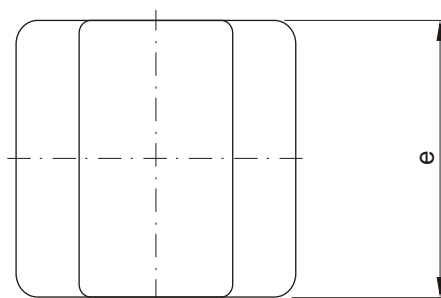
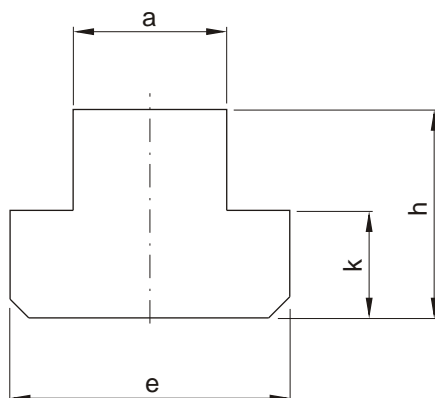
DIN 508

LT27



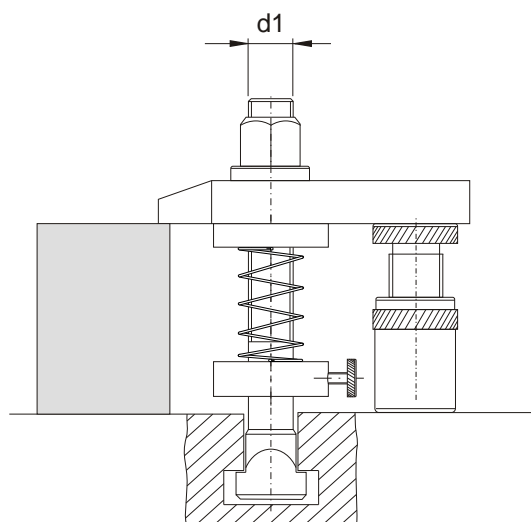
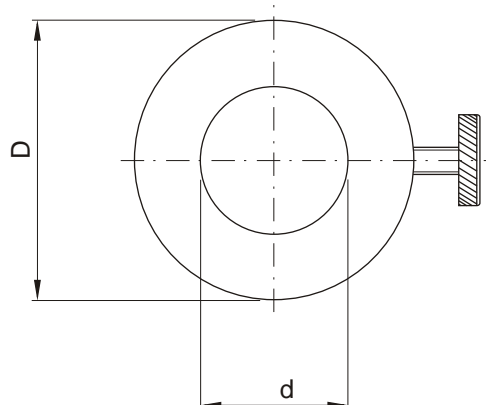
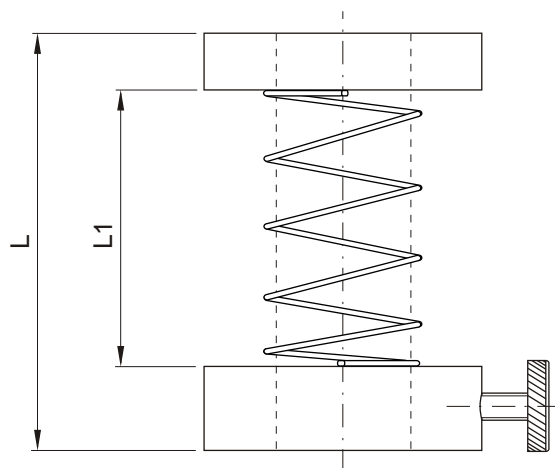
NR KAT.	d	a	e	h	k	waga weight [kg]
LT27-06	M6	7,7	13	10	6	0,009
LT27-08	M8	9,7	15	12	6	0,012
LT27-10	M10	11,7	18	14	7	0,022
LT27-12	M12	13,7	22	16	8	0,035
LT27-14	M14	15,7	25	18	9	0,045
LT27-16	M16	17,7	28	20	10	0,065
LT27-18	M18	19,7	32	24	12	0,105
LT27-20	M20	21,7	35	28	14	0,153
LT27-22	M22	23,7	40	32	16	0,220
LT27-24	M24	27,7	44	36	18	0,320
LT27-30	M30	35,6	54	44	22	0,600

LT28



NR KAT.	a	e	h	k	waga weight [kg]
LT28-06	5,7	10	8	4	0,004
LT28-08	7,7	13	10	6	0,010
LT28-10	9,7	15	12	6	0,016
LT28-12	11,7	18	14	7	0,027
LT28-14	13,7	22	16	8	0,050
LT28-16	15,7	25	18	9	0,070
LT28-18	17,7	28	20	10	0,095
LT28-20	19,7	32	24	12	0,150
LT28-22	21,7	35	28	14	0,210
LT28-24	23,7	40	32	16	0,300
LT28-28	27,7	44	36	18	0,430
LT28-36	35,6	54	44	22	0,800

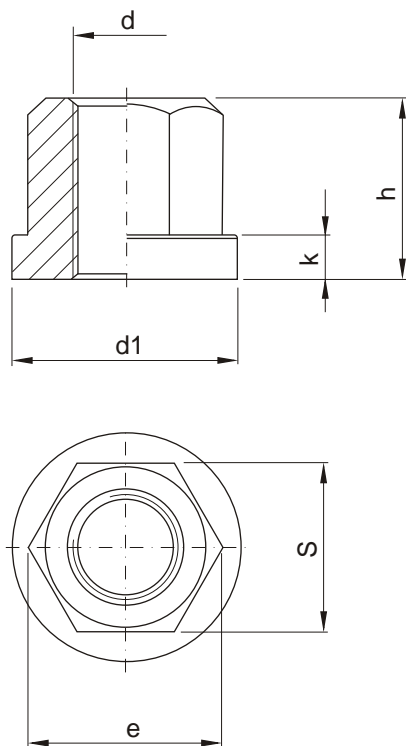
LT291



NR KAT.	d	d1	D	L	L1	waga weight [kg]
LT291-10	11	M10	27	35	20	0,075
LT291-12	13	M12	28	40	33	0,078
LT291-14	15	M14	28	40	30	0,080
LT291-16	17	M16	37	45	30	0,122
LT291-18	19	M18	37	45	40	0,125
LT291-20	21	M20	37	45	42	0,130
LT291-22	23	M22	37	45	45	0,135
LT291-24	25	M24	45	50	45	0,180

NAKR TKA KOŁNIERZOWA
NUT

LT30

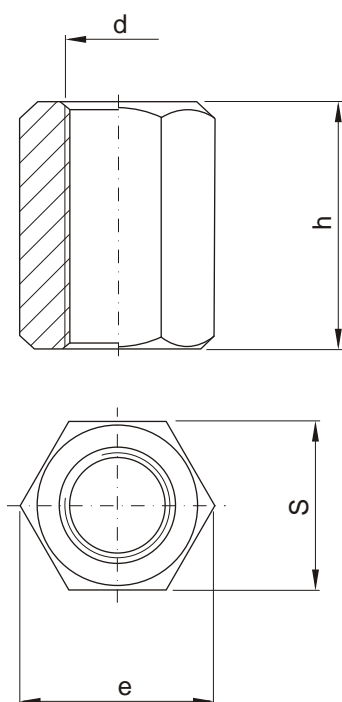


DIN 6331

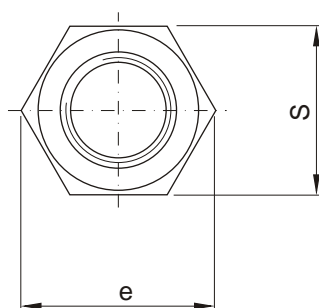
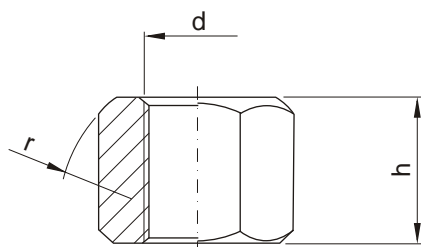
NR KAT.	d	d1	k	h	e	S	waga weight [kg]
LT30-08	M8	18	3,5	12	15,0	13	0,012
LT30-10	M10	22	4	15	19,7	17	0,025
LT30-12	M12	25	4	18	21,9	19	0,036
LT30-14	M14	28	4,5	21	25,4	22	0,051
LT30-16	M16	31	5	24	27,7	24	0,070
LT30-18	M18	34	5	27	31,2	27	0,095
LT30-20	M20	37	6	30	34,6	30	0,130
LT30-22	M22	40	6	33	36,9	32	0,160
LT30-24	M24	45	6	36	41,5	36	0,230
LT30-30	M30	58	8	45	53,1	46	0,470

NAKR TKA WYSOKA
LONG NUT

LT31



NR KAT.	d	h	s	e	waga weight [kg]
LT31-06	M6	18	10	11,5	0,008
LT31-08	M8	24	13	15,0	0,019
LT31-10	M10	30	17	19,6	0,045
LT31-12	M12	36	19	21,9	0,065
LT31-14	M14	42	22	25,4	0,095
LT31-16	M16	48	24	27,7	0,120
LT31-18	M18	54	27	31,2	0,170
LT31-20	M20	60	30	34,6	0,250
LT31-22	M22	66	32	36,9	0,280
LT31-24	M24	72	36	41,5	0,400
LT31-30	M30	90	46	53,1	0,850
LT31-36	M36	108	55	63,5	1,470

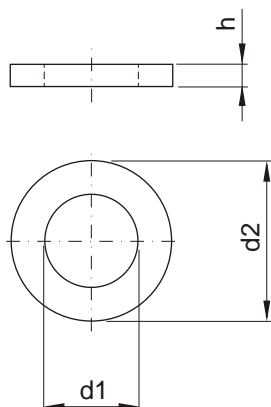
NAKR TKA
HEXAGON NUT
LT321


DIN 6330

NR KAT.	d	h	s	r	e	waga weight [kg]
LT321-06	M6	9	10	9	11,5	0,005
LT321-08	M8	12	13	12	15,0	0,009
LT321-10	M10	15	17	15	19,6	0,014
LT321-12	M12	18	19	17	21,9	0,020
LT321-14	M14	21	22	20	25,4	0,045
LT321-16	M16	24	24	22	27,7	0,060
LT321-18	M18	27	27	24	31,2	0,085
LT321-20	M20	30	30	27	34,6	0,110
LT321-22	M22	33	32	30	36,9	0,130
LT321-24	M24	36	36	32	41,5	0,200
LT321-30	M30	45	46	41	53,1	0,400
LT321-36	M36	54	55	50	63,5	0,720

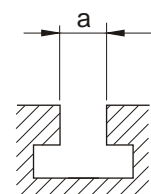
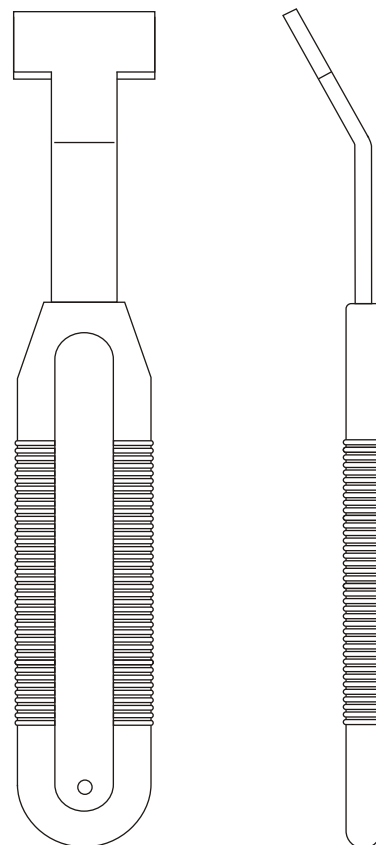
PODKŁADKA
THICK WASHER
LT331


DIN 6340



NR KAT.	d1	d2	h	waga weight [kg]
LT331-06	6,4	17	3	0,006
LT331-08	8,4	23	4	0,010
LT331-10	10,5	28	4	0,016
LT331-12	13	35	5	0,035
LT331-14	15	40	5	0,040
LT331-16	17	45	6	0,060
LT331-18	19	50	6	0,060
LT331-20	21	50	6	0,075
LT331-22	23	50	8	0,095
LT331-24	25	60	8	0,170
LT331-30	31	68	10	0,230
LT331-36	38	80	12	0,350

LT34



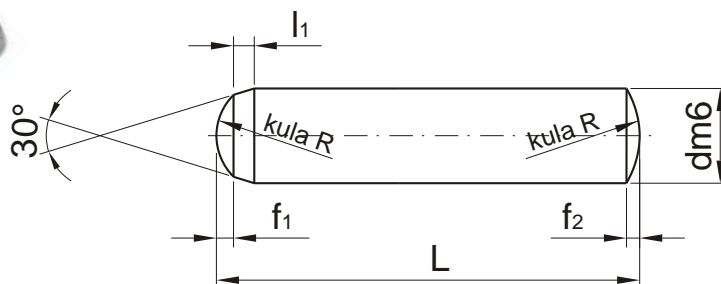
NR KAT.	a	waga weight [kg]
LT34-1214	12-14	0,040
LT34-1618	16-18	0,050
LT34-2022	20-22	0,055
LT34-2428	24-28	0,080



Elementy ustalające i złączne

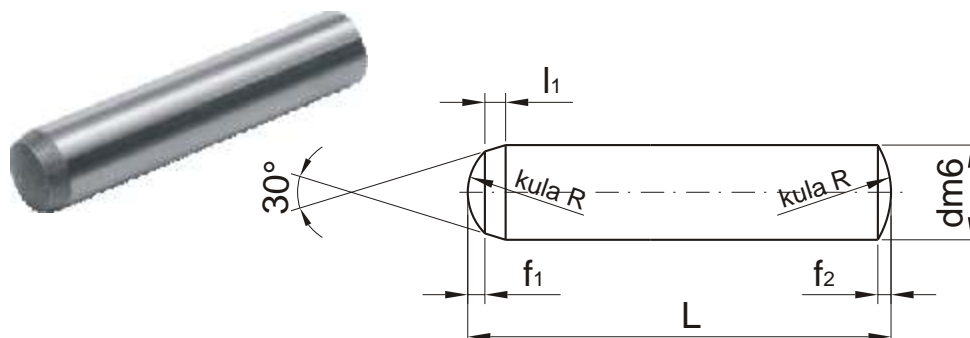
Locating and fastening components

	str./page		str./page		str./page
	KW Z.64-65 Kołek walcowy Dowel pin				
	KWG Z.66 Kołek walcowy Dowel pin				
	ZK Z.67 Zatrask Ball lock				
	ZR Z.67 Zatrask Ball lock				
	WK Z.68 Wkręt mocujący Set screw				
	WKA Z.68 Wkręt Hexagon socket set screw				
	SM Z.69 Śruba z łbem walcowym Socket head cap screws				
	PSM Z.70 Śruba pasowana Stripper bolts				
	PST Z.71 Śruba pasowana z tulejką Stripper bolt with bushing				

KW

Hartowany 60±2 HRC
Hardened

d	f1	f2	l1	R	L	NR KAT.	d	f1	f2	l1	R	L	NR KAT.	d	f1	f2	l1	R	L	NR KAT.
1	0,08	0,15	0,4	1	8	KW-010008	2,5	0,25	0,4	0,7	2,5	32	KW-025032	4	0,4	0,6	1	4	50	KW-040050
					10	KW-010010						36	KW-025036						55	KW-040055
					12	KW-010012	3	0,3	0,45	0,8	3	6	KW-030006						60	KW-040060
1,5	0,12	0,23	0,5	1,6	8	KW-015008						8	KW-030008	5	0,5	0,75	1,2	5	8	KW-050008
					10	KW-015010						10	KW-030010						10	KW-050010
					12	KW-015012						12	KW-030012						12	KW-050012
					14	KW-015014						14	KW-030014						14	KW-050014
					16	KW-015016						16	KW-030016						16	KW-050016
2	0,18	0,3	0,6	2	6	KW-020006						18	KW-030018						18	KW-050018
					8	KW-020008						20	KW-030020						20	KW-050020
					10	KW-020010						24	KW-030024						24	KW-050024
					12	KW-020012						28	KW-030028						28	KW-050028
					14	KW-020014						32	KW-030032						32	KW-050032
					16	KW-020016						36	KW-030036						36	KW-050036
					18	KW-020018						40	KW-030040						40	KW-050040
					20	KW-020020						45	KW-030045						45	KW-050045
					24	KW-020024	4	0,4	0,6	1	4	6	KW-040006						50	KW-050050
					28	KW-020028						8	KW-040008						55	KW-050055
					32	KW-020032						10	KW-040010						60	KW-050060
					36	KW-020036						12	KW-040012						70	KW-050070
2,5	0,25	0,4	0,7	2,5	6	KW-025006						14	KW-040014						80	KW-050080
					8	KW-025008						16	KW-040016	6	0,6	0,9	1,5	6	8	KW-060008
					10	KW-025010						18	KW-040018						10	KW-060010
					12	KW-025012						20	KW-040020						12	KW-060012
					14	KW-025014						24	KW-040024						14	KW-060014
					16	KW-025016						28	KW-040028						16	KW-060016
					18	KW-025018						32	KW-040032						18	KW-060018
					20	KW-025020						36	KW-040036						20	KW-060020
					24	KW-025024						40	KW-040040						24	KW-060024
					28	KW-025028						45	KW-040045						28	KW-060028

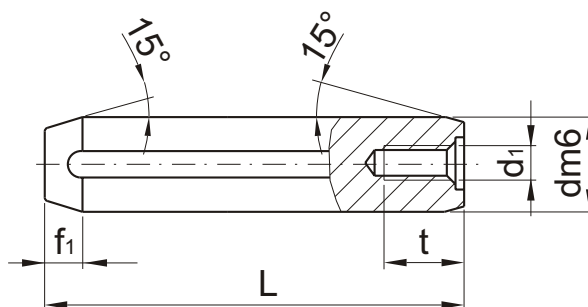
Uwaga: Inne wymiary i tolerancje na specjalne zamówienie.
Note: Other dimensions and tolerances on request only.

KW

Hartowany 60±2 HRC
Hardened

d	f1	f2	l1	R	L	NR KAT.	d	f1	f2	l1	R	L	NR KAT.	d	f1	f2	l1	R	L	NR KAT.
6	0,6	0,9	1,5	6	32	KW-060032	10	1	1,5	2	10	28	KW-100028	14	1,3	2	2,5	16	36	KW-140036
					36	KW-060036						32	KW-100032						40	KW-140040
					40	KW-060040						36	KW-100036						45	KW-140045
					45	KW-060045						40	KW-100040						50	KW-140050
					50	KW-060050						45	KW-100045						55	KW-140055
					55	KW-060055						50	KW-100050						60	KW-140060
					60	KW-060060						55	KW-100055						70	KW-140070
8	0,8	1,2	1,8	8	10	KW-080010	12	1,3	1,8	2,5	12	60	KW-100060	16	1,7	2,5	3	16	80	KW-140080
					12	KW-080012						70	KW-100070						90	KW-140090
					14	KW-080014						80	KW-100080						100	KW-140100
					16	KW-080016						90	KW-100090						120	KW-140120
					18	KW-080018						100	KW-100100						40	KW-160040
					20	KW-080020						120	KW-100120						45	KW-160045
					24	KW-080024						20	KW-120020						50	KW-160050
					28	KW-080028						24	KW-120024						55	KW-160055
					32	KW-080032						28	KW-120028						60	KW-160060
					36	KW-080036						32	KW-120032						70	KW-160070
					40	KW-080040	36	KW-120036	80	KW-160080										
					45	KW-080045	40	KW-120040	90	KW-160090										
					50	KW-080050	45	KW-120045	100	KW-160100										
					55	KW-080055	50	KW-120050	120	KW-160120										
					60	KW-080060	55	KW-120055	140	KW-160140										
					70	KW-080070	60	KW-120060	20	2	3	4,0	20	55	KW-200055					
					80	KW-080080	70	KW-120070						60	KW-200060					
					90	KW-080090	80	KW-120080						70	KW-200070					
					100	KW-080100	90	KW-120090						80	KW-200080					
					10	1	1,5	2	10	16	KW-100016					100	KW-120100			
18	KW-100018	120	KW-120120	100						KW-200100										
20	KW-100020	130	KW-120130	120						KW-200120										
24	KW-100024	----	-----	140						KW-200140										

Uwaga: Inne wymiary i tolerancje na specjalne zamówienie.

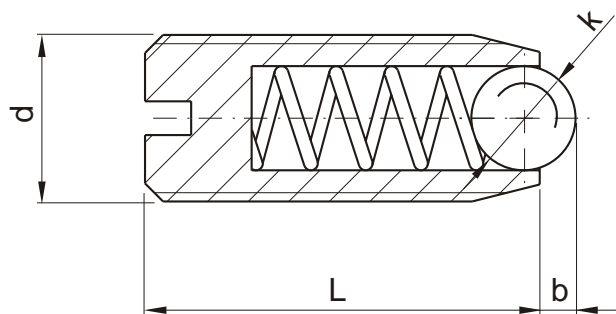
Note: Other dimensions and tolerances on request only.

KWG

Hartowany 60±2 HRC
Hardened

d	f1	R	d1	t	L	NR KAT.
6	2,1	6	M4	6	16	KWG-06016
					18	KWG-06018
					20	KWG-06020
					24	KWG-06024
					28	KWG-06028
					32	KWG-06032
					36	KWG-06036
					40	KWG-06040
					45	KWG-06045
					50	KWG-06050
					55	KWG-06055
					60	KWG-06060
8	2,6	8	M5	8	20	KWG-08020
					24	KWG-08024
					28	KWG-08028
					32	KWG-08032
					36	KWG-08036
					40	KWG-08040
					45	KWG-08045
					50	KWG-08050
					55	KWG-08055
					60	KWG-08060
					70	KWG-08070
					80	KWG-08080
10	3	10	M6	10	90	KWG-08090
					100	KWG-08100
					24	KWG-10024
					28	KWG-10028
					32	KWG-10032
					36	KWG-10036
					40	KWG-10040
					45	KWG-10045
					50	KWG-10050
					55	KWG-10055
					60	KWG-10060
					70	KWG-10070
12	3,8	12	M6	10	80	KWG-10080
					90	KWG-10090
					100	KWG-10100
					28	KWG-12028
					32	KWG-12032
					40	KWG-12040
					45	KWG-12045
					50	KWG-12050
					55	KWG-12055
					60	KWG-12060
					70	KWG-12070
					80	KWG-12080
					90	KWG-12090
					100	KWG-12100
					120	KWG-12120

d	f1	R	d1	t	L	NR KAT.
13	3,8	13	M6	12	40	KWG-13040
					50	KWG-13050
					60	KWG-13060
					70	KWG-13070
					80	KWG-13080
					100	KWG-13100
14	4	14	M8	12	32	KWG-14032
					36	KWG-14036
					40	KWG-14040
					45	KWG-14045
					50	KWG-14050
					55	KWG-14055
					60	KWG-14060
					70	KWG-14070
					80	KWG-14080
					90	KWG-14090
16	4,7	16	M8	12	100	KWG-14100
					120	KWG-14120
					32	KWG-16032
					36	KWG-16036
					40	KWG-16040
					45	KWG-16045
					50	KWG-16050
					55	KWG-16055
					60	KWG-16060
					70	KWG-16070
					80	KWG-16080
					90	KWG-16090
20	6	20	M10	16	100	KWG-16100
					120	KWG-16120
					36	KWG-20036
					40	KWG-20040
					45	KWG-20045
					50	KWG-20050
					55	KWG-20055
					60	KWG-20060
					70	KWG-20070
					80	KWG-20080
					90	KWG-20090
					100	KWG-20100
25	6	25	M16	24	120	KWG-20120
					50	KWG-25050
					60	KWG-25060
					70	KWG-25070
					80	KWG-25080
					90	KWG-25090
					100	KWG-25100
					120	KWG-25120

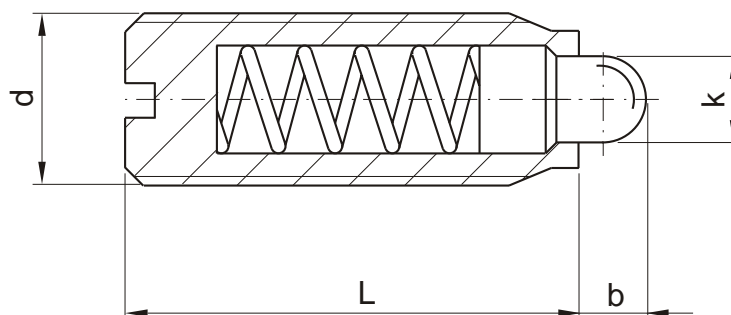
ZK



Mat. 1.0503

d	k	L	b	F[N]	NR KAT.
M4	2,5	9	0,8	6 - 12	ZK-040
M5	3	12	0,9	7 - 13	ZK-050
M6	3,5	14	1,0	9 - 15	ZK-060
M8	5	16	1,5	20 - 35	ZK-080
M10	6	19	2,0	25 - 45	ZK-100
M12	8	22	2,5	35 - 60	ZK-120
M16	10	24	3,5	65 - 110	ZK-160

ZR



Mat. 1.0503

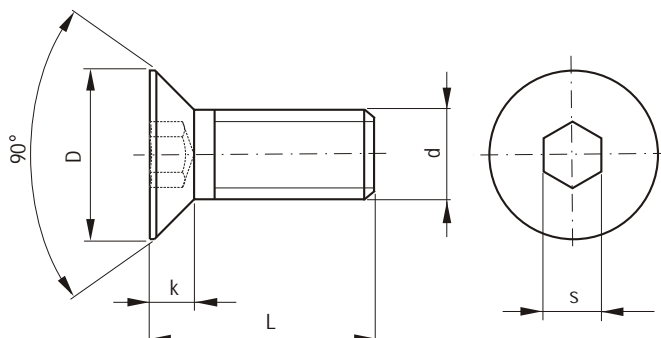
d	k	L	b	F[N]	NR KAT.
M4	1,8	9	1,5	6 - 20	ZR-040
M5	2,4	12	2,0	6 - 20	ZR-050
M6	2,7	14	2,0	7 - 20	ZR-060
M8	4	16	2,0	15 - 30	ZR-080
M10	4,5	19	2,5	20 - 35	ZR-100
M12	6	22	3,5	30 - 55	ZR-120
M16	8,5	24	4,5	45 - 100	ZR-160

WKR T MOCUJ CY

SET SCREW

WKR T MOCUJ CY

SET SCREW



WK

DIN 7991
8.8 (800N/mm²)

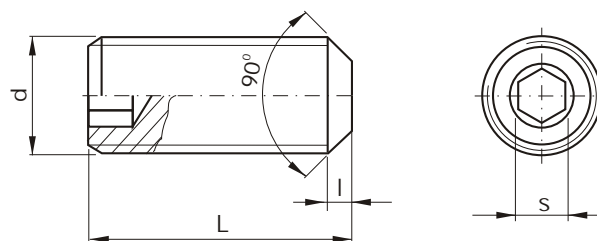
d	L	D	k	s	NR KAT.
M4	8	8	2,3	2,5	WK -0408
	10				WK -0410
	12				WK -0412
	16				WK -0416
	20				WK -0420
M5	8	10	2,8	3	WK -0508
	10				WK -0510
	12				WK -0512
	14				WK -0514
	16				WK -0516
M6	12	12	3,3	4	WK -0612
	16				WK -0616
	20				WK -0620

d	L	D	k	s	NR KAT.
M6	25	12	3,3	4	WK -0625
	30				WK -0630
M8	12	16	4,4	5	WK -0812
	16				WK -0816
	20				WK -0820
	25				WK -0825
M10	20	20	5,5	6	WK -1020
	30				WK -1030
M12	20	24	6,5	8	WK -1220
	30				WK -1230
	35				WK -1235

WKR T

HEXAGON SOCKET SET SCREW

DIN 913-45H

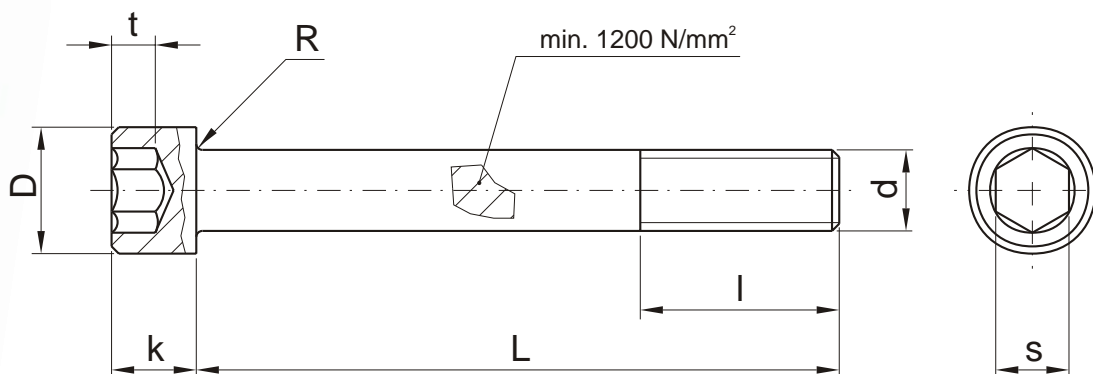


WKA

d	s	I	L	NR KAT.
M3	1,5	0,5	6	WKA-0306
			8	WKA-0308
M4	2	0,75	6	WKA-0406
			8	WKA-0408
			10	WKA-0410
			12	WKA-0412
M5	2,5	0,75	6	WKA-0506
			8	WKA-0508
			10	WKA-0510
			12	WKA-0512
			16	WKA-0516
M6	3	1	6	WKA-0606
			8	WKA-0608
			10	WKA-0610
			12	WKA-0612
			16	WKA-0616
			20	WKA-0620
M8	4	1,25	8	WKA-0808
			10	WKA-0810

d	s	I	L	NR KAT.
M8	4	1,25	12	WKA-0812
			16	WKA-0816
			20	WKA-0820
			30	WKA-0830
M10	5	1,5	10	WKA-1010
			12	WKA-1012
			16	WKA-1016
			20	WKA-1020
			30	WKA-1030
M12	6	1,75	40	WKA-1040
			12	WKA-1212
			16	WKA-1216
			20	WKA-1220
M16	8	2	30	WKA-1230
			40	WKA-1240
			20	WKA-1620
			30	WKA-1630
			40	WKA-1640

SM

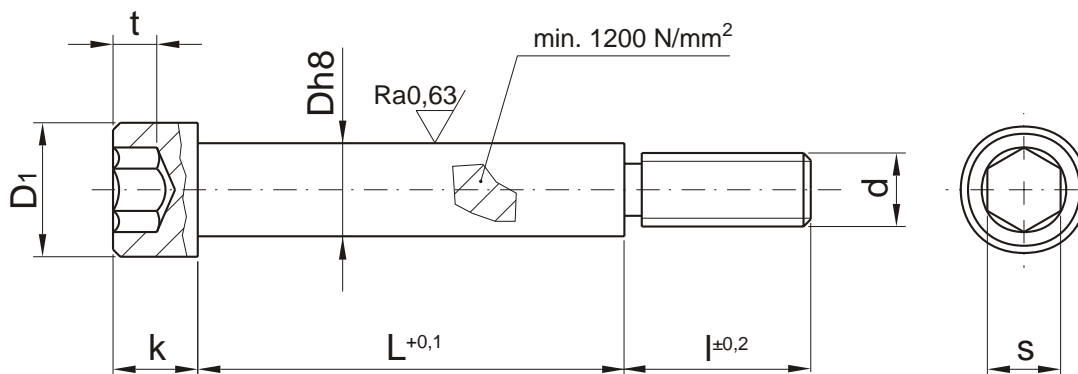


d	D	s	k	t	I	R
M6	10	5	6	3	24	0,25
M8	13	6	8	4	28	0,4
M10	16	8	10	5	32	0,6
M12	18	10	12	6	38	0,8
M16	24	14	16	8	44	
M20	30	17	20	10	52	
M24	36	19	24	12	60	

kl. 12.9

L	NR KAT.							L
	d							
	M6	M8	M10	M12	M16	M20	M24	
16	SM-06016	SM-08016	SM-10016					16
20	SM-06020	SM-08020	SM-10020	SM-12020				20
25	SM-06025	SM-08025	SM-10025	SM-12025	SM-16025			25
30	SM-06030	SM-08030	SM-10030	SM-12030	SM-16030	SM-20030		30
35	SM-06035	SM-08035	SM-10035	SM-12035	SM-16035			35
40	SM-06040	SM-08040	SM-10040	SM-12040	SM-16040	SM-20040	SM-24040	40
45	SM-06045	SM-08045	SM-10045	SM-12045	SM-16045	SM-20045		45
50	SM-06050	SM-08050	SM-10050	SM-12050	SM-16050	SM-20050	SM-24050	50
55	SM-06055	SM-08055	SM-10055	SM-12055	SM-16055	SM-20055		55
60	SM-06060	SM-08060	SM-10060	SM-12060	SM-16060	SM-20060	SM-24060	60
65	SM-06065	SM-08065	SM-10065	SM-12065	SM-16065	SM-20065		65
70	SM-06070	SM-08070	SM-10070	SM-12070	SM-16070	SM-20070	SM-24070	70
75	SM-06075	SM-08075	SM-10075	SM-12075	SM-16075			75
80	SM-06080	SM-08080	SM-10080	SM-12080	SM-16080	SM-20080	SM-24080	80
90	SM-06090	SM-08090	SM-10090	SM-12090	SM-16090	SM-20090	SM-24090	90
100	SM-06100	SM-08100	SM-10100	SM-12100	SM-16100	SM-20100	SM-24100	100
110	SM-06110	SM-08110	SM-10110	SM-12110	SM-16110	SM-20110	SM-24110	110
120	SM-06120	SM-08120	SM-10120	SM-12120	SM-16120	SM-20120	SM-24120	120
130	SM-06130	SM-08130	SM-10130	SM-12130	SM-16130	SM-20130	SM-24130	130
140	SM-06140	SM-08140	SM-10140	SM-12140	SM-16140	SM-20140	SM-24140	140
150		SM-08150	SM-10150	SM-12150	SM-16150	SM-20150	SM-24150	150
160	SM-06160	SM-08160	SM-10160	SM-12160	SM-16160	SM-20160	SM-24160	160
170				SM-12170	SM-16170	SM-20170		170
180	SM-06180	SM-08180	SM-10180	SM-12180	SM-16180	SM-20180	SM-24180	180
190					SM-16190	SM-20190		190
200	SM-06200	SM-08200	SM-10200	SM-12200	SM-16200	SM-20200	SM-24200	200
220		SM-08220	SM-10220	SM-12220	SM-16220	SM-20220	SM-24220	220
240			SM-10240	SM-12240	SM-16240	SM-20240	SM-24240	240
260			SM-10260	SM-12260	SM-16260	SM-20260	SM-24260	260
280			SM-10280	SM-12280	SM-16280	SM-20280	SM-24280	280
300					SM-16300	SM-20300	SM-24300	300
320						SM-20320		320
340					SM-16340	SM-20340	SM-24340	340
360								360
380					SM-16380			380
400								400
420					SM-16420			420

PSM



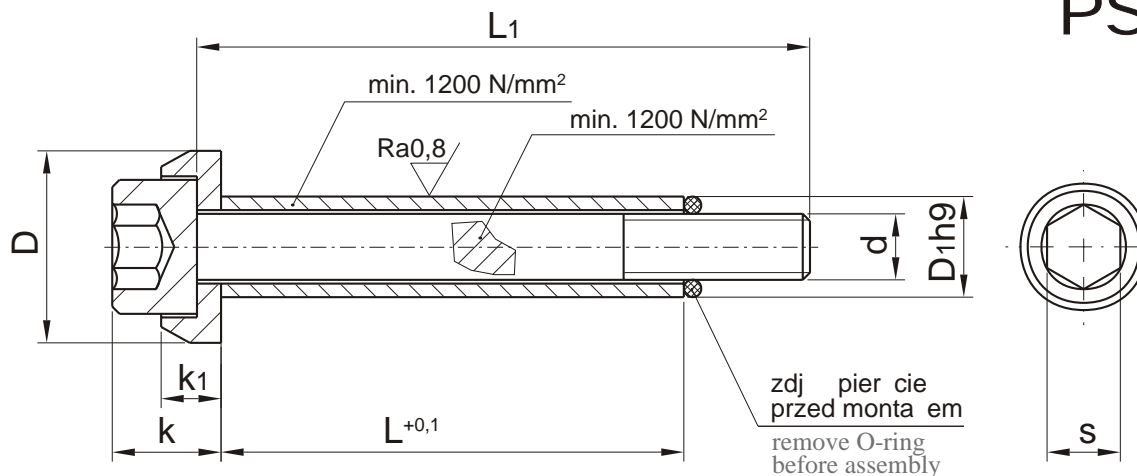
kl. 12.9



d	D	D1	l	k	s	t
M5	6	10	9,5	4,5	3	2
M6	8	13	11	5,5	4	3
M8	10	16	13	7	5	4
M10	12	18	16	9	6	5
M12	16	24	18	11	8	6
M16	20	30	22	14	10	8
M20	24	36	27	16	12	10

L	NR KAT.							L
	d							
	M5	M6	M8	M10	M12	M16	M20	
10	PSM-05010							10
12	PSM-05012	PSM-06012						12
16	PSM-05016	PSM-06016	PSM-08016	PSM-10016				16
20	PSM-05020	PSM-06020	PSM-08020	PSM-10020				20
25	PSM-05025	PSM-06025	PSM-08025	PSM-10025				25
30	PSM-05030	PSM-06030	PSM-08030	PSM-10030	PSM-12030			30
40	PSM-05040	PSM-06040	PSM-08040	PSM-10040	PSM-12040	PSM-16040		40
50		PSM-06050	PSM-08050	PSM-10050	PSM-12050	PSM-16050	PSM-20050	50
60			PSM-08060	PSM-10060	PSM-12060	PSM-16060	PSM-20060	60
70			PSM-08070	PSM-10070	PSM-12070	PSM-16070	PSM-20070	70
80			PSM-08080	PSM-10080	PSM-12080	PSM-16080	PSM-20080	80
90				PSM-10090	PSM-12090	PSM-16090	PSM-20090	90
100				PSM-10100	PSM-12100	PSM-16100	PSM-20100	100
120					PSM-12120	PSM-16120	PSM-20120	120

PST



d	D1	s	k	k1	D
M6	10	5	10	5,5	15
M8	12,5	6	13	6,5	19
M10	15	8	15	7,5	23
M12	17,5	10	18	9,0	27
M16	23	14	24	11,0	34

L	NR KAT.										L
	d M6	L1	d M8	L1	d M10	L1	d M12	L1	d M16	L1	
20	PST-06020	35									20
25	PST-06025	40									25
30	PST-06030	45	PST-08030	45	PST-10030	50					30
35	PST-06035	50	PST-08035	50	PST-10035	55					35
40	PST-06040	55	PST-08040	55	PST-10040	60	PST-12040	60			40
45	PST-06045	60	PST-08045	60	PST-10045	65	PST-12045	65			45
50	PST-06050	65	PST-08050	65	PST-10050	70	PST-12050	70	PST-16050	80	50
55	PST-06055	70	PST-08055	70	PST-10055	75	PST-12055	80			55
60	PST-06060	80	PST-08060	80	PST-10060	80	PST-12060	90	PST-16060	90	60
70	PST-06070	90	PST-08070	90	PST-10070	90	PST-12070	100	PST-16070	100	70
80	PST-06080	100	PST-08080	100	PST-10080	100	PST-12080	110	PST-16080	110	80
90	PST-06090	110	PST-08090	110	PST-10090	110	PST-12090	120	PST-16090	120	90
100			PST-08100	120	PST-10100	120	PST-12100	130	PST-16100	130	100
110							PST-12110	140	PST-16110	140	110
120					PST-10120	140	PST-12120	150	PST-16120	150	120
140							PST-12140	180	PST-16140	180	140
150									PST-16150	180	150
160									PST-16160	200	160