POLSWAT

2019



stalowe elementy kute

wrought iron elements

DRUT SPAWALNICZY
- welding wire • accessories
- Schweissdraht
- проволока сварочная



str. 5

TARCZE
- grinding wheels
- Schleifscheiben



str. 6

ELEMENTY SKRĘTNE, KOSZYKI
- scrolls, baskets
- Zierschnecken, Zirbeln
- крученные эементы, фонарики



str. 7 - 10

ROZETY
- rosettes
- Rosetten
- узоры



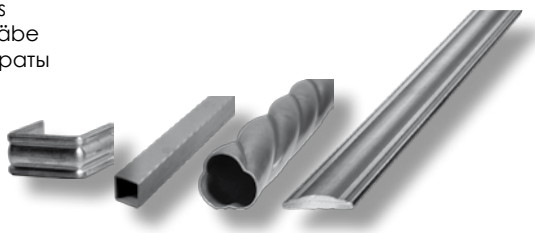
str. 11 - 14

TRALKI, SŁUPY
- balusters, posts
- Zierstäbe, Pfosten
- балясины, опорные столбы



str. 15 - 20

PŁASKOWNIKI, PRĘTY
- handrails, bars
- Handläufe, Stäbe
- полосы, квадраты



str. 21 - 24

GROTY
- spears
- Spitzen
- наконечники



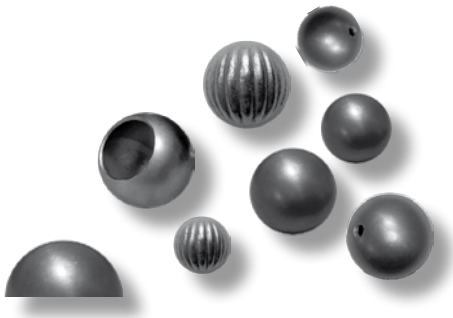
str. 25 - 27

GAŁKI, NASADKI
- knobs, studs
- Knöpfe
- вставки, насадки



str. 28

KULE
- spheres-
- Kugeln
- шары



str. 29

MASKOWNICE
- plates
- Bodenrosetten
- закладные



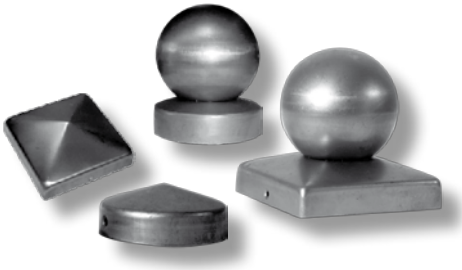
str. 30 - 32

KWIATY, LIŚCIE
- flowers, leaves
- Zierblumen, Zierblätter
- цветы, листья



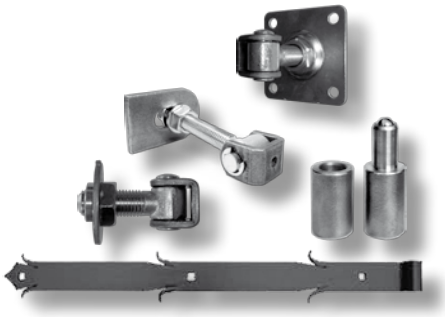
str. 33 - 43

DASZKI
- post caps
- Pfeilerabdeckungen
- заглушки



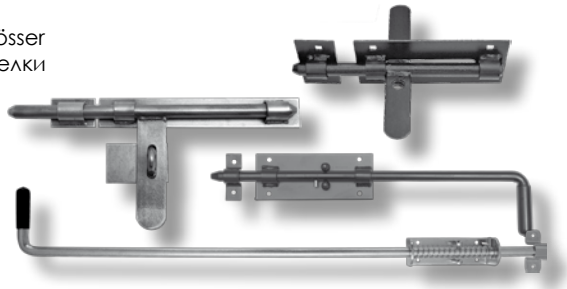
str. 43 - 44

ZAWIASY
- hinges
- Scharniere
- навесы



str. 45 - 47

RYGLE, ZASUWY
- bolts
- Riegel, Schlösser
- болты, защелки



str. 48

KASETY, ZAMKI
- cassettes, locks
- Kastenschlösser, Schlösser
- Ьстаvкі, самком



str. 49 - 51

SZYLDY
- lock covers
- Schlossplatten
- накладки



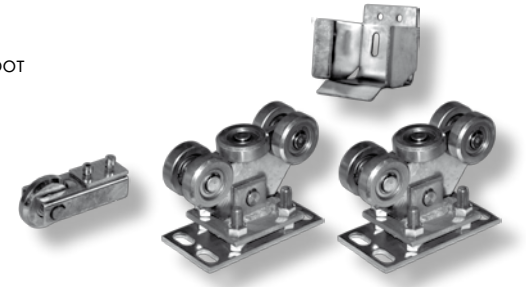
str. 52 - 53

KLAMKI
- door handles
- Griffe
- ручки



str. 54 - 55

WÓZKI
- barrows
- Karen
- ролики для ворот



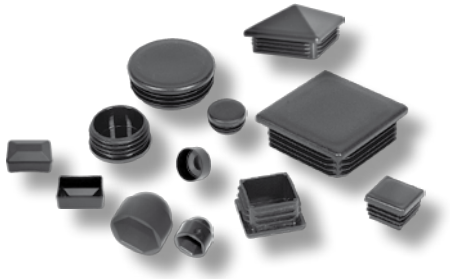
str. 56 - 57

NAPĘDY
- gate drives
- Torantriebe
- ролики для ворот



str. 58 - 59

ZAŚLEPKI
- plastic plugs
- Verschlusskappen
- пласmасовые



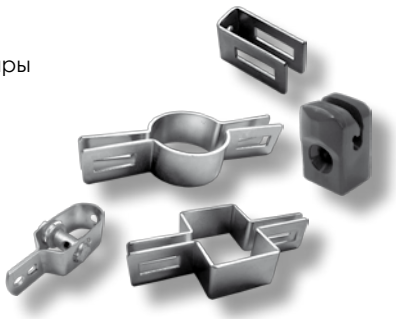
str. 60 - 62

ŻELIWO
- cast - iron
- Gusseisen
- чугун



str. 63

AKCESORIA
- accessories
- ubehör fur Zäune аксессуары
- для ворот



str. 64 - 65

KOTWY CHEMICZNE
- chemical anchors
- Schleifscheiben
- химические анкеры



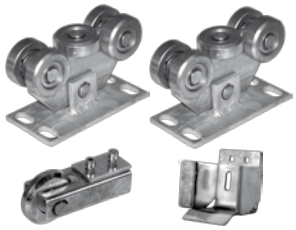
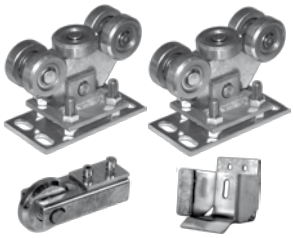
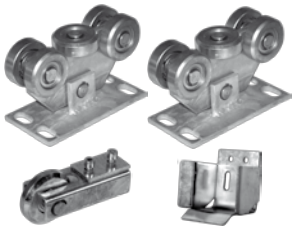
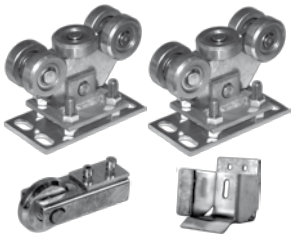
str. 66

FARBY
- paints
- Farben
- краски



str. 66

AKCESORIA DO BRAM PRZESUWNYCH

PAKIET 1 P WÓZKI JEZDNE 70	**PAKIET 2 P** WÓZKI JEZDNE Z REGULACJĄ 70	**PAKIET 3 P** WÓZKI JEZDNE 80	**PAKIET 4 P** WÓZKI JEZDNE Z REGULACJĄ 80
15.705 x 2 szt.	15.705.01 x 2 szt.	15.805 x 2 szt.	15.805.01 x 2 szt.
15.825 x 1 szt.	15.825 x 1 szt.	15.825 x 1 szt.	15.825 x 1 szt.
15.826 x 1 szt.	15.826 x 1 szt.	15.826 x 1 szt.	15.826 x 1 szt.





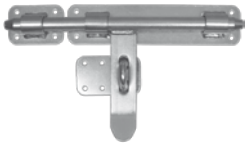
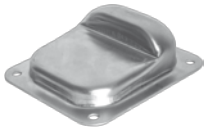


NR ART	**15.677** ZAMEK HAKOWY H 40	**15.833** ROLKA	**15.838** UCHWYT BRAMY 40	**C8**	**BX STRONG** do bramy o masie do 800 kg
H x L (mm)	250	⌀ 33	160 x 65	1000	- siłownik **BX-78** - karta częstotliwości - fotokomórka **DIR 10** - pilot
G/ ▯ (mm)				▯8	
W (kg)	0,540	0,080	0,530	1,640	

AKCESORIA DO BRAM SKRZYDŁOWYCH





NR ART	**15.240.20**	**15.242.20**	**15.363**	**15.464.04** SPRĘŻYNA	**15.472.03**	**15.830.05** OGRANICZNIK
H x L (mm)	100 x 100	50	280 x 110 x 3	420	270	48 x 160 x 130
M/ ⌀ (mm)	M 20 x 50	M 20		⌀ 14	⌀ 16	
W (kg)	0,684	0,468	0,660	0,830	0,900	0,700

AKCESORIA DO FURTEK









NR ART	**15.240.16**	**15.242.16**	**15.532**	**15.641.01** 15.641+ 15.671	**15.650** KASETA ELEKTROZACZEPU	**15.651** ELEKTROZACZEP **R3** U=10 ± 2V	**16.326**
H x L (mm)	80 x 80	50	195 x 40	245 x 60 x 40	255 x 45 x 35	90 x 20 x 28,5	30 x 240
M (mm)	M 16 x 50	M 16					
W (kg)	0,482	0,350	0,260	1,240	1,000	0,200	0,600



NR ART	ø (mm)	W (kg)
DS 08.05	ø 0,8	5,0
DS 08.15	ø 0,8	15,0
DS 10.05	ø 1,0	5,0
DS 10.15	ø 1,0	15,0
DS 12.15	ø 1,2	15,0
DS 16.15	ø 1,6	15,0



DYSZA GAZOWA TYPU MB 15		
NR ART	ø (mm)	L (mm)
PP DG 15	ø12	53



DYSZA GAZOWA TYPU MB 24		
NR ART	ø (mm)	L (mm)
PP DG 24	ø12,5	63,5



DYSZA GAZOWA TYPU MB 25		
NR ART	ø (mm)	L (mm)
PP DG 25	ø15	57



DYSZA GAZOWA TYPU MB 36		
NR ART	ø (mm)	L (mm)
PP DG 36	ø16	84



DYSZA GAZOWA TYPU MB 401/501		
NR ART	ø (mm)	L (mm)
PP DG 401	ø16	76



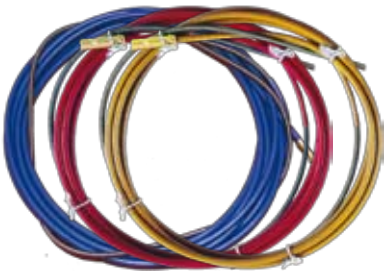
KOŃCÓWKI PRĄDOWE TYPU MB 15			
NR ART	ø (mm)	GWINT X L (mm)	MATERIAŁ
PP KP 15.08	ø 0,8	M6 x 25	E-Cu
PP KP 15.10	ø 1,0	M6 x 25	E-Cu
PP KP 15.12	ø 1,2	M6 x 25	E-Cu



KOŃCÓWKI PRĄDOWE TYPU MB 25/ MB 36			
NR ART	ø (mm)	GWINT X L (mm)	MATERIAŁ
PP KP 25.08	ø 0,8	M6 x 28	E-Cu
PP KP 25.10	ø 1,0	M6 x 28	E-Cu
PP KP 25.12	ø 1,2	M6 x 28	E-Cu



KOŃCÓWKI PRĄDOWE TYPU MB 401/ 501			
NR ART	ø (mm)	GWINT X L (mm)	MATERIAŁ
PP KP 401.08	ø 0,8	M8 x 30	E-Cu
PP KP 401.10	ø 1,0	M8 x 30	E-Cu
PP KP 401.12	ø 1,2	M8 x 30	E-Cu
PP KP 401.16 *	ø 1,6	M8 x 30	E-Cu





ŁĄCZNIK PRĄDOWY TYPU MB 15	
NR ART	GWINT
PP LP 15.06	M6



ŁĄCZNIKI PRĄDOWE TYPU MB 25	
NR ART	GWINT
PP LP 25.06	M6



ŁĄCZNIKI PRĄDOWE TYPU MB 36	
NR ART	GWINT
PP LP 36.06	M6
PP LP 36.08	M8



PP SP 15	SPRĘŻYNA MB 15
PP SP 25	SPRĘŻYNA MB 25



PP IZC 24	IZOLATOR TYPU MB 24



PP IZ 36	IZOLATOR TYPU MB 36



PP IZ 401	IZOLATOR TYPU MB 401/501

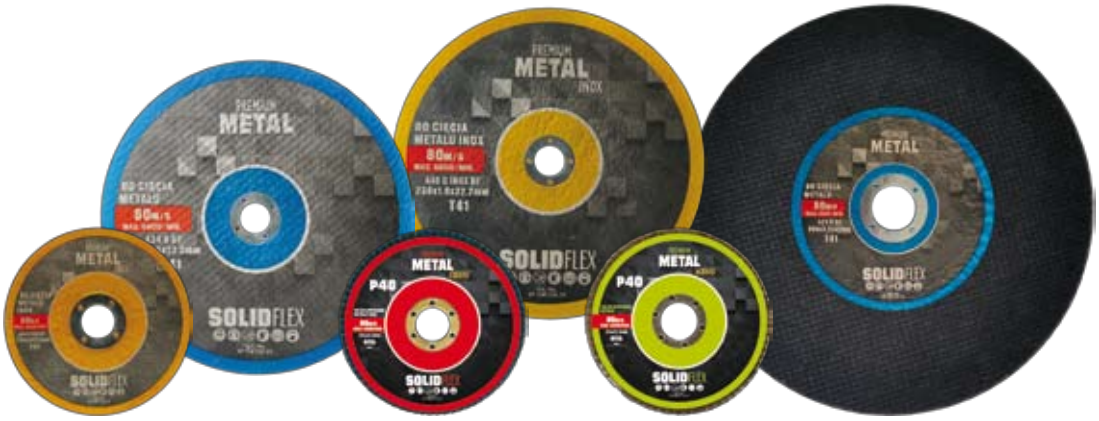
WKŁAD PROWADZĄCY		NIEBIESKI	CZERWONY	ŻÓŁTY
NR ART	L (mm)	ø (mm)	ø (mm)	ø (mm)
PP WP 3	3 000	ø 0,6 - 0,8	ø 1,0 - 1,2	ø 1,4 - 1,6
PP WP 4	4 000	ø 0,6 - 0,8	ø 1,0 - 1,2	ø 1,4 - 1,6
PP WP 5	5 000	ø 0,6 - 0,8	ø 1,0 - 1,2	ø 1,4 - 1,6



ART. NR	SPAW MIX spray
poj. (ml)	400



ART. NR	SPAW MIX pasta
poj. (ml)	330



ART. NR	ZASTOSOWANIE
TARCZE DO CIĘCIA METALU **INOX** - PŁASKIE	
SF CMI 125.10	do cięcia INOX stali kwasoodpornej 125 x 1,0 x 22
SF CMI 125.16	do cięcia INOX stali kwasoodpornej 125 x 1,6 x 22
SF CMI 230.19	do cięcia INOX stali kwasoodpornej 230 x 1,9 x 22
SF CMI 300.32	do cięcia INOX stali kwasoodpornej 300 x 3,2 x 32
SF CMI 350.35	do cięcia INOX stali kwasoodpornej 350 x 3,5 x 32
SF CMI 400.40	do cięcia INOX stali kwasoodpornej 400 x 4,0 x 32
TARCZE DO SZLIFOWANIA - WYPUKŁE	
SF SMI 125.60	do szlifowania INOX 125 x 6,0 x 22

ART. NR	ZASTOSOWANIE
TARCZE LISTKOWE DO SZLIFOWANIA METALU **CIRKAT**	
SF SMLC 125.40	ściernica listkowa 125 x 22 /40 CIRKAT
SF SMLC 125.60	ściernica listkowa 125 x 22 /60 CIRKAT
SF SMLC 125.80	ściernica listkowa 125 x 22 /80 CIRKAT
TARCZE LISTKOWE DO SZLIFOWANIA METALU **KORKAT**	
SF SMLK 125.40	ściernica listkowa 125 x 22 /40 KORKAT
SF SMLK 125.60	ściernica listkowa 125 x 22 /60 KORKAT
SF SMLK 125.80	ściernica listkowa 125 x 22 /80 KORKAT



ART. NR	ZASTOSOWANIE
TARCZE DO CIĘCIA METALU **INOX** - PŁASKIE	
GF CMI 125.10	do cięcia INOX stali kwasoodpornej 125 x 1,0 x 22
GF CMI 125.16	do cięcia INOX stali kwasoodpornej 125 x 1,6 x 22
GF CMI 230.19	do cięcia INOX stali kwasoodpornej 230 x 1,9 x 22
GF CMI 300.32	do cięcia INOX stali kwasoodpornej 300 x 3,2 x 32
GF CMI 350.35	do cięcia INOX stali kwasoodpornej 350 x 3,5 x 32
GF CMI 400.40	do cięcia INOX stali kwasoodpornej 400 x 4,0 x 32
TARCZE DO CIĘCIA METALU - PŁASKIE	
GFP CM 125.10	do cięcia metalu 125 x 1,0 x 22 PREMIUM
GFP CM 125.16	do cięcia metalu 125 x 1,6 x 22 PREMIUM
GFP CM 230.25	do cięcia metalu 230 x 2,5 x 22 PREMIUM

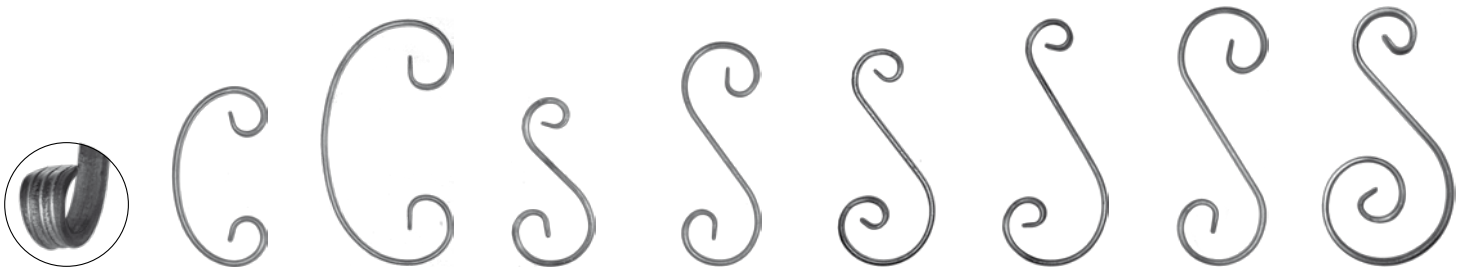


ART. NR	ZASTOSOWANIE
TARCZE LISTKOWE DO SZLIFOWANIA METALU **CIRKAT**	
GF SMLC 125.40	ściernica listkowa 125 x 22 /40 CIRKAT
GF SMLC 125.60	ściernica listkowa 125 x 22 /60 CIRKAT
GF SMLC 125.80	ściernica listkowa 125 x 22 /80 CIRKAT
TARCZE LISTKOWE DO SZLIFOWANIA METALU **KORKAT**	
GF SMLK 125.40	ściernica listkowa 125 x 22 /40 KORKAT
GF SMLK 125.60	ściernica listkowa 125 x 22 /60 KORKAT
GF SMLK 125.80	ściernica listkowa 125 x 22 /80 KORKAT
TARCZE DO SZLIFOWANIA - WYPUKŁE	
GF SMI 125.60	do szlifowania INOX 125 x 6,0 x 22
GF SM 125.60	do szlifowania metalu 125 x 6,0 x 22
GFP SM 125.60	do szlifowania metalu 125 x 6,0 x 22 PREMIUM

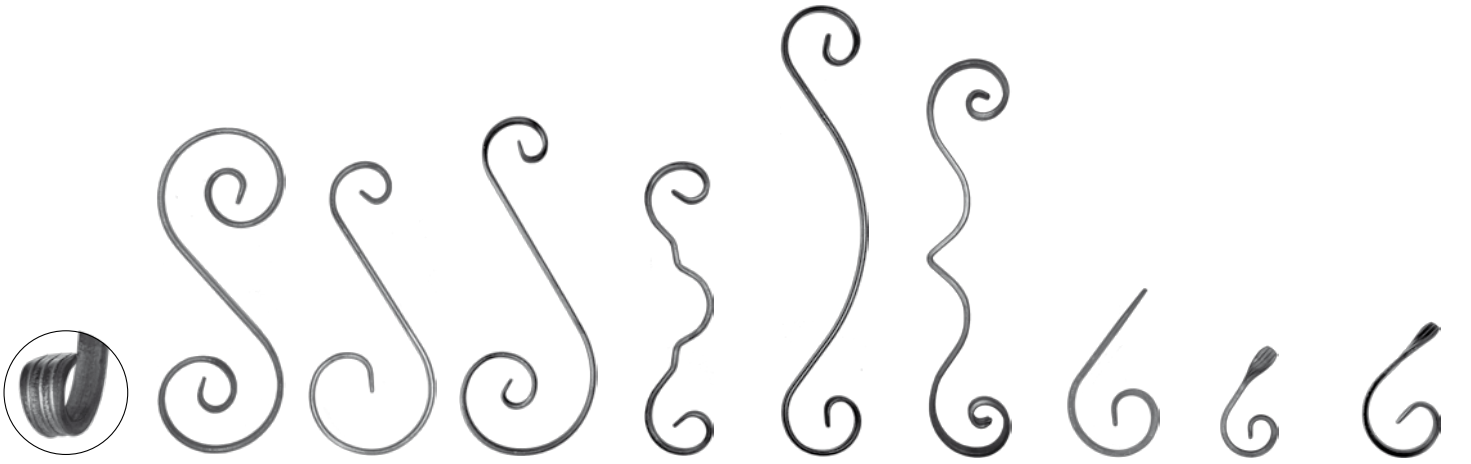
10 x 5



NR ART	01.061	01.062	01.063	01.063.01	01.064	01.065	01.066	01.067
H x L (mm)	80 x 45	95 x 60	100 x 60	110 x 65	115 x 65	120 x 60	130 x 70	150 x 80
▯ (mm)	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5
W (kg)	0,088	0,108	0,108	0,116	0,116	0,116	0,128	0,152



NR ART	01.068	01.069	01.070	01.070.05	01.071	01.071.01	01.071.05	01.072
H x L (mm)	160 x 80	220 x 115	150 x 70	200 x 70	195 x 80	220 x 90	230 x 80	230 x 115
▯ (mm)	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5
W (kg)	0,152	0,220	0,136	0,180	0,172	0,180	0,220	0,260



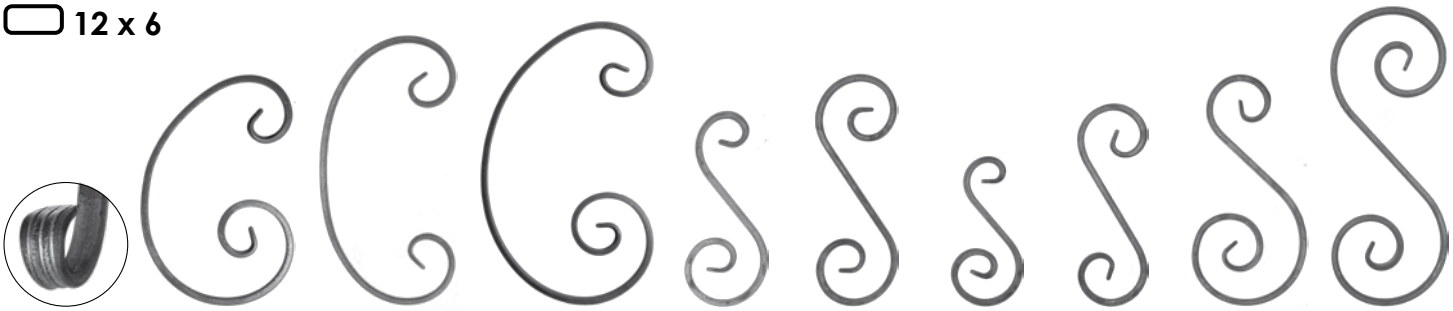
NR ART	01.072.01	01.073	01.074	01.075	01.076	01.076.02 *	01.077	01.078	01.079
H x L (mm)	290 x 115	260 x 110	330 x 130	250 x 60	450 x 85	430 x 90	150 x 80	100 x 60	120 x 70
▯ (mm)	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5
W (kg)	0,344	0,228	0,305	0,180	0,305	0,300	0,128	0,088	0,108

12 x 6

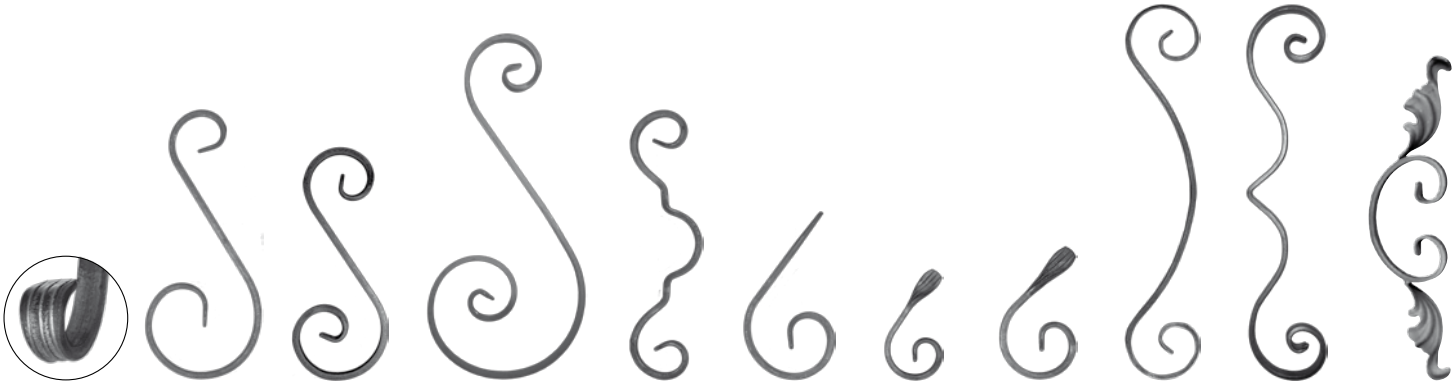


NR ART	01.092.02	01.092	01.093	01.093.01	01.094	01.095	01.096	01.097	01.097.02	01.098.02
H x L (mm)	80 x 50	95 x 60	100 x 60	110 x 65	115 x 70	120 x 70	130 x 70	150 x 80	160 x 80	220 x 115
▯ (mm)	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6
W (kg)	0,124	0,153	0,153	0,164	0,181	0,181	0,181	0,215	0,215	0,311

▭ 12 x 6

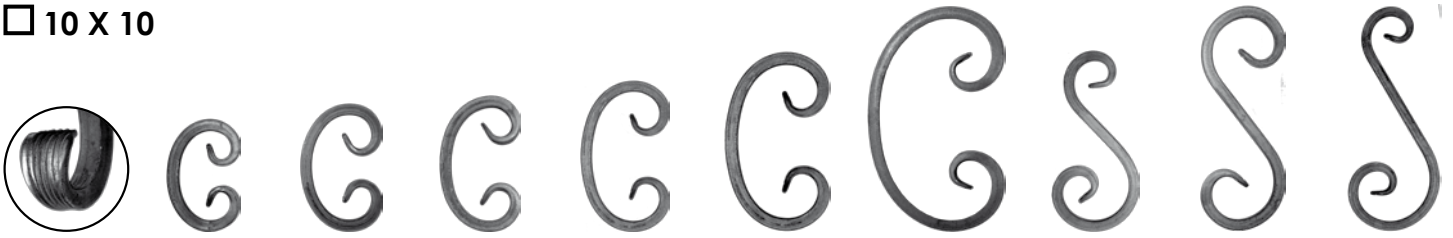


NR ART	01.098.05	01.099.02	01.099.05	01.091.11	01.091.19	01.100	01.100.05	01.101	01.101.05
H x L (mm)	210 x 140	270 x130	290 x175	195 x 80	230 x 80	150 x 70	200 x 70	230 x 110	290 x 110
▯ (mm)	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6
W (kg)	0,373	0,367	0,470	0,254	0,328	0,215	0,254	0,367	0,490



NR ART	01.102	01.103	01.104	01.105	01.083.27	01.108	01.109	01.114.28	01.117 *	01.121
H x L (mm)	260 x 110	225 x 90	410 x 185	250 x 75	150 x 80	100 x 65	120 x 80	450 x 80	430 x 90	320 x 80
▯ (mm)	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6	▯ 12 x 6
W (kg)	0,320	0,320	0,580	0,255	0,180	0,135	0,155	0,470	0,420	0,280

□ 10 X 10

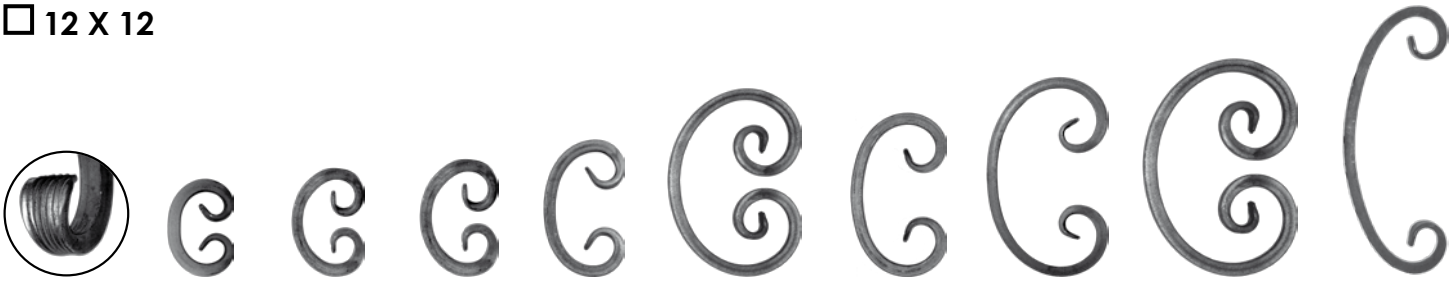


NR ART	01.293	01.295	01.296	01.297	01.298	01.299	01.310	01.310.05	01.311
H x L (mm)	100 x 65	120 x 70	130 x 75	150 x 85	180 x 95	220 x 125	180 x 85	220 x 85	250 x 100
□ (mm)	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10
W (kg)	0,215	0,235	0,260	0,300	0,330	0,480	0,330	0,420	0,420

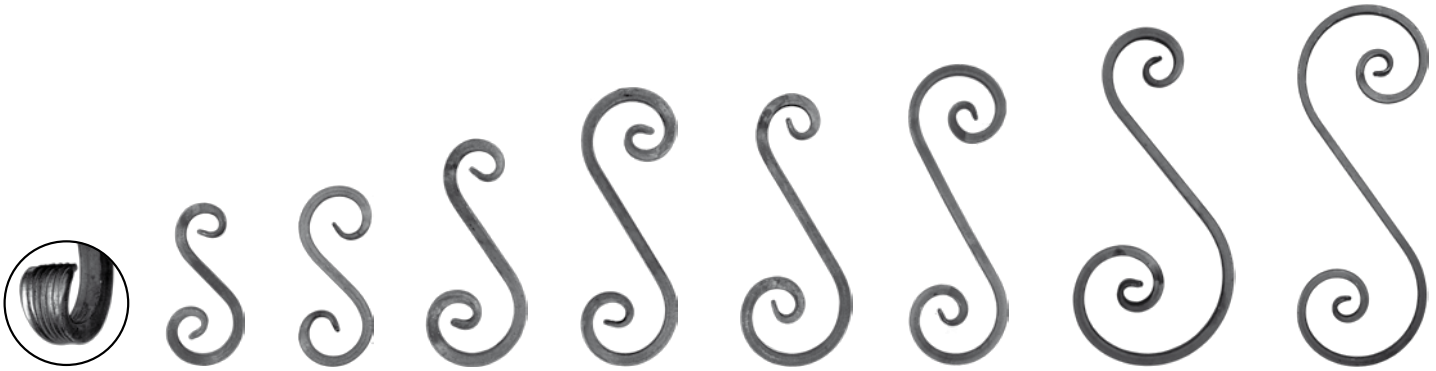


NR ART	01.311.05	01.312	01.312.05	01.319	01.319.01	01.320	01.320.01	01.327	01.328
H x L (mm)	300 x 100	290 x 120	360 x 120	120 x 65	120 x 65	150 x 80	150 x 80	395 x 85	450 x 90
□ (mm)	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10	□ 10 x 10
W (kg)	0,560	0,515	0,680	0,180	0,180	0,235	0,235	0,560	0,610

□ 12 X 12



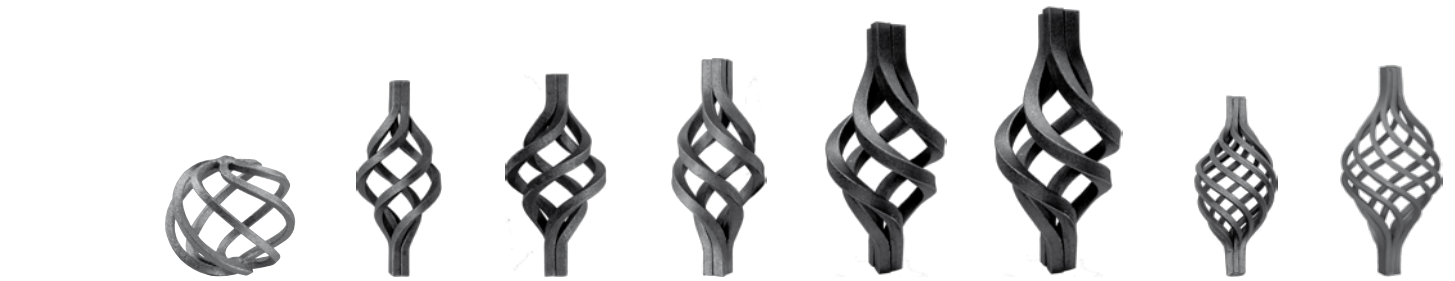
NR ART	01.392	01.395	01.396	01.397	01.397.04	01.398	01.398.02	01.398.04	01.399
H x L (mm)	100 x 65	120 x 75	130 x 75	150 x 90	180 x 130	180 x 95	220 x 130	230 x 180	360 x 145
□ (mm)	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12
W (kg)	0,295	0,365	0,385	0,420	0,740	0,465	0,680	0,960	0,740



NR ART	01.400	01.400.05	01.401	01.401.05	01.402	01.402.05	01.404	01.404.05
H x L (mm)	180 x 90	220 x 90	250 x 105	300 x 100	290 x 120	360 x 120	410 x 200	500 x 200
□ (mm)	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12
W (kg)	0,465	0,520	0,590	0,790	0,725	0,970	1,200	1,680



NR ART	01.409	01.409.01	01.410	01.410.01	01.414	01.414.28	06.033	06.033.04
H x L (mm)	130 x 65	130 x 65	170 x 90	170 x 90	395 x 85	450 x 90	300 x 80	300 x 80
□ (mm)	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12
W (kg)	0,245	0,245	0,340	0,340	0,790	0,860	0,420	0,440



NR ART	02.063.03	02.080	02.081	02.082	02.083	02.084 *	02.086	02.086.01
H x L (mm)	70 x 70	130 x 60	135 x 65	145 x 65	170 x 80	180 x 95	120 x 60	140 x 75
□ (mm)	□ 6 x 6	□ 12 x 12	□ 14 x 14	□ 16 x 16	□ 20 x 20	□ 24 x 24	□ 12 x 12	□ 15 x 15
W (kg)	0,195	0,200	0,250	0,360	0,800	1,050	0,175	0,270



NR ART	⌀ (mm)	▯ (mm)	W (kg)
02.065.01	⌀ 100	▯ 12 x 6	0,190
02.065.02	⌀ 120	▯ 12 x 6	0,230



NR ART	H x L (mm)	▯ / □ (mm)	W (kg)
02.126.80	80 x 80	▯ 12 x 6	0,170
02.126.100	100 x 100	▯ 12 x 6	0,215
02.126.120	120 x 120	▯ 12 x 6	0,260
02.210.80	80 x 80	□ 10 x 10	0,230
02.210.100 *	100 x 100	□ 10 x 10	0,290
02.210.120 *	120 x 120	□ 10 x 10	0,360



NR ART	⌀ (mm)	□ (mm)	W (kg)
02.010.08 *	⌀ 80	□ 10 x 10	0,180
02.010.10	⌀ 100	□ 10 x 10	0,230
02.016	⌀ 100	□ 12 x 12	0,320
02.017	⌀ 120	□ 12 x 12	0,390



NR ART	⌀ (mm)	▯ (mm)	W (kg)
02.028 *	⌀ 80	▯ 12 x 6	0,130
02.031	⌀ 100	▯ 12 x 6	0,160
02.032	⌀ 120	▯ 12 x 6	0,200
02.033	⌀ 130	▯ 12 x 6	0,220
02.035.03	⌀ 105	▯ 12 x 6	0,180
02.035.04	⌀ 110	▯ 12 x 6	0,190



NR ART	H (mm)	L (mm)	▯ (mm)	W (kg)
02.252.10	225	760	▯ 12 x 6	1,820
02.252.12 *	225	760	▯ 20 x 6	3,300



NR ART	H (mm)	L (mm)	▯ (mm)	W (kg)
02.252.20	330	1100	▯ 12 x 6	3,160



NR ART	02.301.01	02.301.02	02.301.03	02.301.04	02.301.05	02.301.06	02.301.07	02.301.08	02.301.09
H x L (mm)	150 x 75	210 x 125	240 x 170	170 x 120	170 x 120	260 x 180	260 x 180	270 x 200	270 x 200
▯ / □ (mm)	▯ 12 x 6	▯ 12 x 6	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12
W (kg)	0,160	0,260	0,720	0,400	0,400	0,980	0,980	1,080	1,080



NR ART	02.301.10	02.301.11	02.301.12	02.301.13	02.301.14	02.301.15
H x L (mm)	360 x 280	360 x 280	600 x 420	600 x 420	410 x 340	410 x 340
□ (mm)	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12
W (kg)	1,480	1,480	2,600	2,600	2,020	2,020



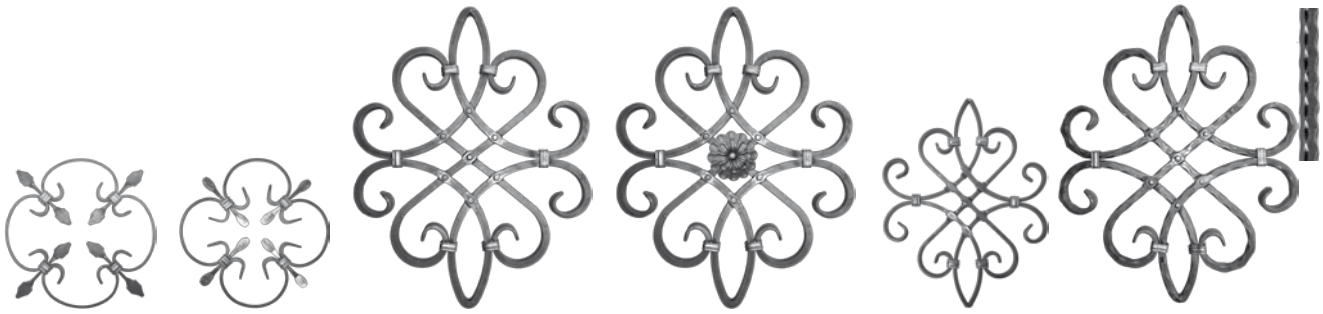
NR ART	02.301.16	02.301.17	02.301.18	02.301.19	02.301.20
H x L (mm)	490 x 410	490 x 410	540 x 290	540 x 290	440 x 990
□ (mm)	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12
W (kg)	2,960	2,960	1,900	1,900	3,900



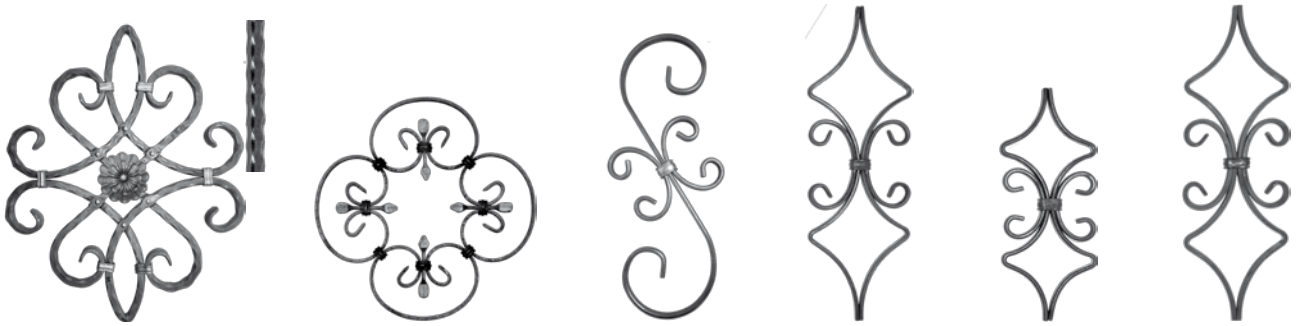
NR ART	02.301.21	02.302.01	02.302.02	02.302.03	02.302.04
H x L (mm)	440 x 990	340 x 150	340 x 150	500 x 320	500 x 320
□ (mm)	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12
W (kg)	3,900	0,920	0,920	1,980	1,980



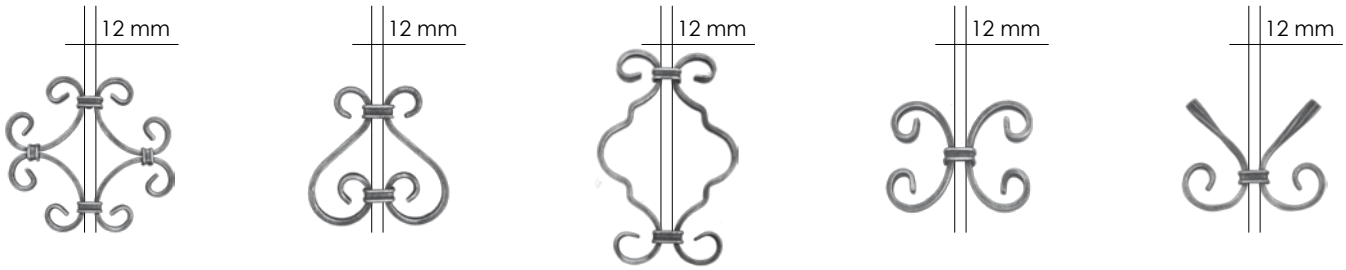
NR ART	02.302.05	02.302.06	02.302.07	02.302.08
H x L (mm)	610 x 300	610 x 300	470 x 820	470 x 820
□ (mm)	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12
W (kg)	2,640	2,640	3,350	3,350



NR ART	03.005	03.007	03.012.10	03.012.12	03.018	03.018.10
H x L (mm)	250 x 250	250 x 250	530 x 420	530 x 420	340 x 280	530 x 420
▯ / □ (mm)	▯ 20 x4	▯ 10 x 5	□ 12 x12	□ 12 x12	▯ 12 x 6	□ 12 x12
W (kg)	1,000	0,700	4,380	4,840	1,480	4,340



NR ART	03.018.12	03.020	03.142	03.400	03.400.01	03.401
H x L (mm)	530 x 420	380 x 380	340 x 135	420 x 145	280 x 110	420 x 145
▯ / □ (mm)	□ 12 x12	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 10 x 5	▯ 12 x 6
W (kg)	4,800	1,320	0,520	0,640	0,480	0,920



03.027	03.043.01	03.051 *	03.052	03.109 *
01.095 x 4 szt.	**01.100 x 2 szt.**	**01.105 x 2 szt.**	**01.095 x 2 szt.**	**01.109 x 2 szt.**
12.135.12 x 2 szt.	**12.135.24 x 2 szt.**	**12.135.24 x 2 szt.**	**12.135.24 x 1 szt.**	**12.135.24 x 1 szt.**
12.135.24 x 2 szt.				



NR ART	03.301.09	03.302.12	03.303.05	03.303.06	03.305.03 *
H x L (mm)	500 x 280	490 x 330	430 x 250	⌀ 380	420 x 385
▯ / □ (mm)	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12
W (kg)	2,140	3,580	2,000	3,900	3,850







NR ART	03.305.04 *	03.306.05 *	03.306.06 *	03.307.11	03.307.61
H x L (mm)	460 x 385	⌀ 380	445 x 385	490 x 330	485 x 385
□ (mm)	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12
W (kg)	3,600	4,150	4,300	2,380	4,640






NR ART	03.308.15 *	03.309.11	03.309.12	03.309.13
H x L (mm)	400 x 450	525 x 250	⌀ 385	545 x 385
□ (mm)	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12
W (kg)	3,000	2,480	3,600	5,220





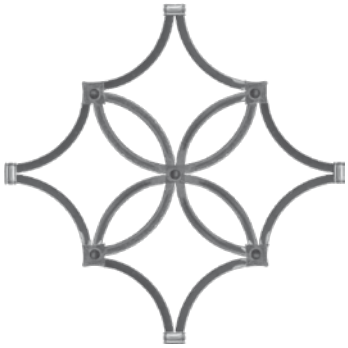


NR ART	03.310.07	03.314.09	03.315.06	03.316.06 *	03.316.07 *
H x L (mm)	450 x 250	400 x 340	350 x 290	420 x 385	440 x 385
□ (mm)	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12
W (kg)	2,380	2,380	2,380	4,080	3,490






NR ART	03.316.02	03.316.03	03.316.04	03.316.05
H x L (mm)	560 x 405	610 x 370	510 x 675	640 x 405
□ (mm)	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12
W (kg)	3,960	5,780	6,060	4,720

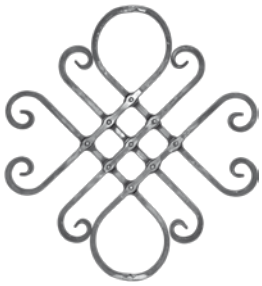




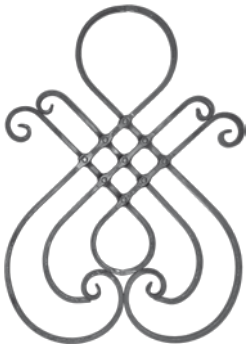

NR ART	03.316.08	03.316.17	03.316.18	03.317.06
H x L (mm)	516 x 516	470 x 385	500 x 385	500 x 300
□ (mm)	□ 12 x12	□ 12 x12	□ 12 x12	□ 12 x12
W (kg)	3,820	4,600	5,200	2,840

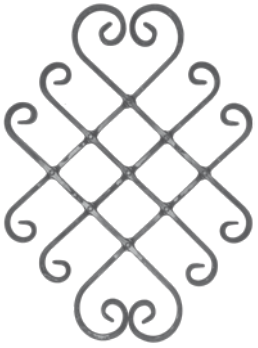






NR ART	03.319.07	03.319.08	03.319.09	03.570 *	03.571
H x L (mm)	310 x 250	400 x 310	490 x 385	290 x 290	400 x 410
□ (mm)	□ 12 x12	□ 12 x12	□ 12 x12	▯ 11 x 5	▯ 16 x 8
W (kg)	1,840	2,680	3,120	0,880	3,000






NR ART	03.574	03.580	03.581	03.610
H x L (mm)	575 x 400	300 x 220	440 - 580 x 380 - 620	370 x 300
□ (mm)	▯ 16 x 8	▯ 11 x 5	▯ 16 x 8	□ 12 x 12/ ▯ 12 x 6
W (kg)	4,400	0,920	4,260	1,800

NR ART	H x L (mm)	G (mm)	W (kg)
03.805	985 x 96	5	1,900
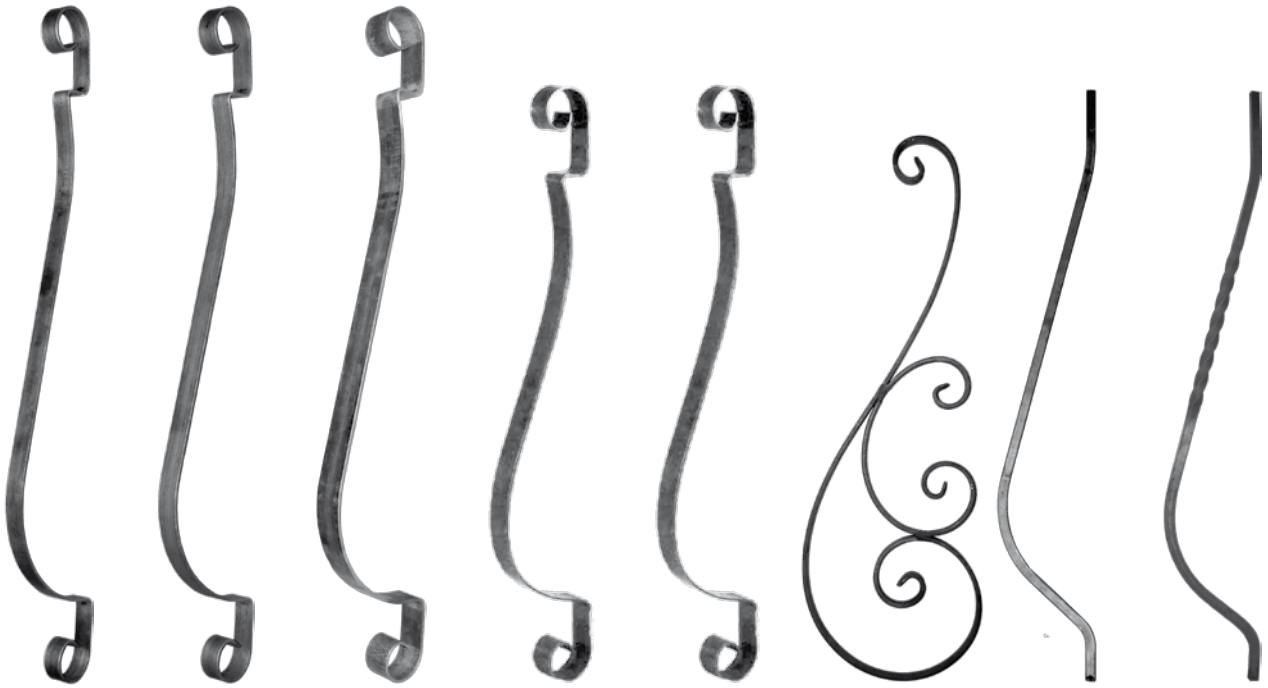


NR ART	H x L (mm)	G (mm)	W (kg)
03.806	985 x 117	5	1,950

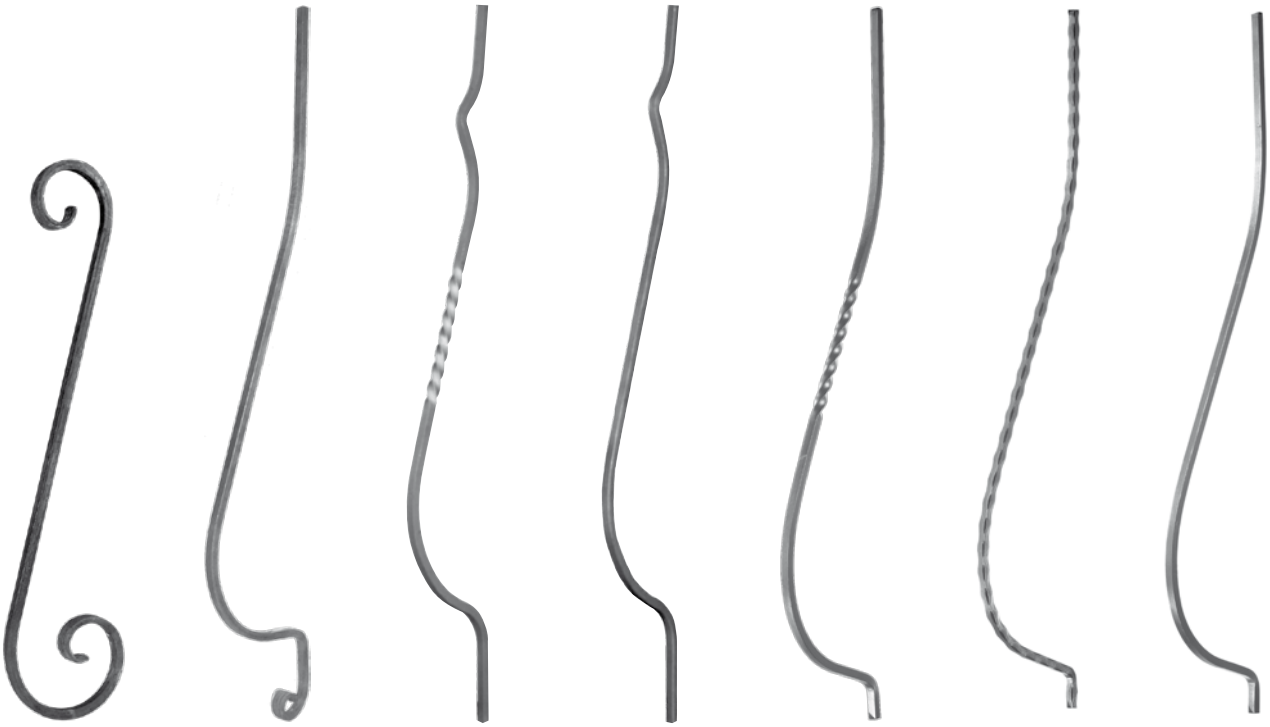


NR ART	H x L (mm)	G (mm)	W (kg)
03.810	980 x 97	5	2,000





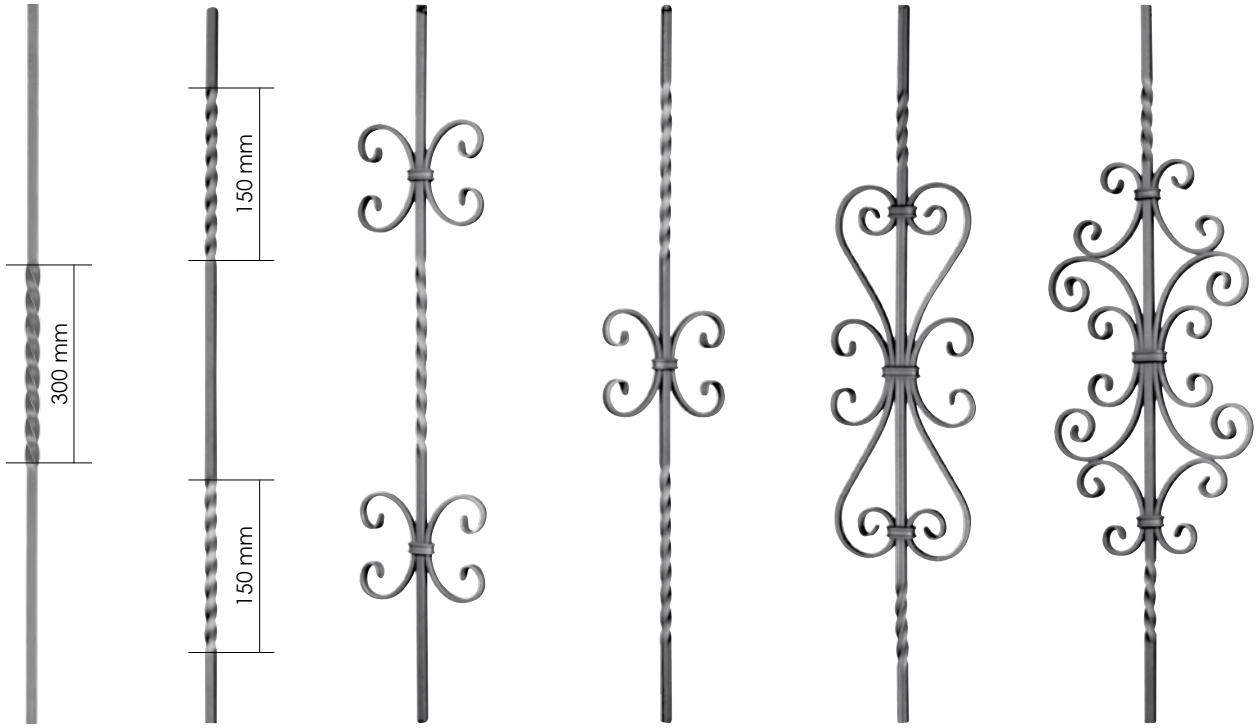
NR ART	04.010 *	04.011 *	04.012	04.014 *	04.016	04.025	04.040	04.045
H x L (mm)	900 x 155	900 x 155	900 x 155	800 x 135	800 x 135	▯ 20 x 5	□ 12 x 12	□ 12 x 12
▯ (mm)	▯ 25 x 4	▯ 30 x 4	▯ 40 x 4	▯ 25 x 4	▯ 40 x 4	700 x 235	790 x 120	790 x 120
W (kg)	1,060	1,280	1,650	1,000	1,500	1,920	0,960	0,960



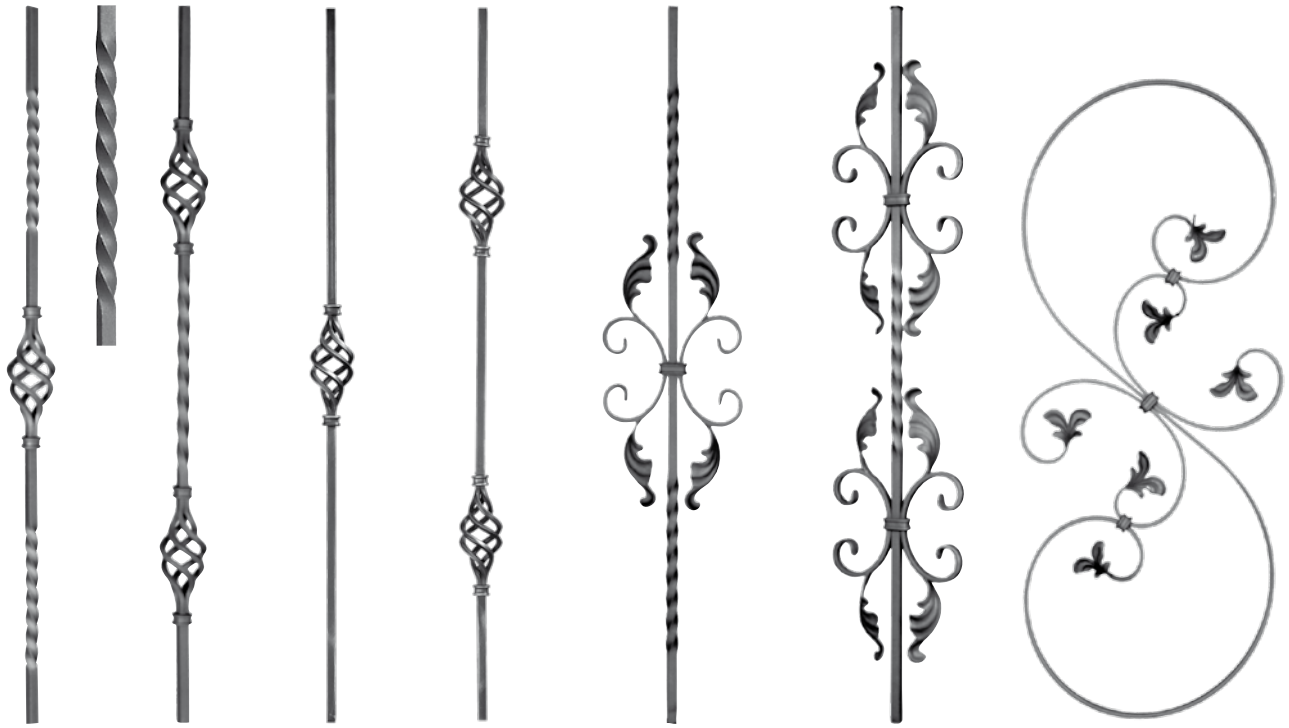
NR ART	04.057.01	04.070 *	04.075	04.083	04.098.25	04.103	04.106.05
▯ / □ (mm)	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12
H x L (mm)	750 x 200	950 x 200	950 x 125	950 x 125	950 x 200	950 x 200	950 x 200
W (kg)	1,470	1,360	1,150	1,150	1,200	1,120	1,200



NR ART	04.110.05	06.013 *	06.053	09.516.08 *	09.516.10 *
□ (mm)	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12
H x L (mm)	950 x 200	950 x 125	950 x 200	950 x 200	950 x 200
W (kg)	1,240	1,100	1,150	1,200	1,200



NR ART	05.045	05.046	05.067	05.068	05.076	05.085
□ (mm)	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12
H x L (mm)	950	950	950 x 150	950 x 150	950 x 180	950 x 250
W (kg)	1,100	1,100	1,850	1,460	2,400	2,950



NR ART	05.123	05.124	05.124.02	05.124.04	05.130	05.131	05.142
□ (mm)	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	▯ 12 x 6
H x L (mm)	950	950	950	950	950 x 170	950 x170	860 x 360
W (kg)	1,100	1,220	1,100	1,200	1,400	1,700	2,150



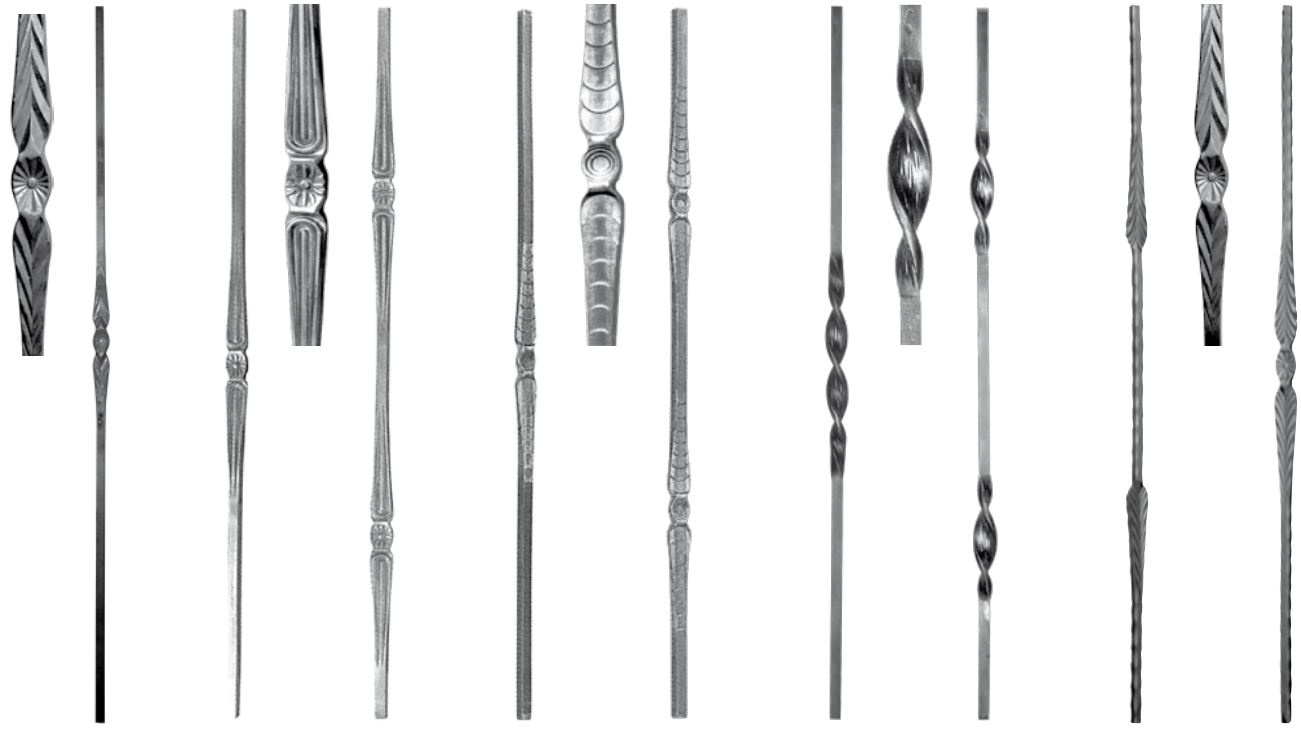
NR ART	07.301.10	07.301.11	07.302.16	07.302.17	07.303.01	07.307.01
ø/□ (mm)	□ 16 x 16	ø14	ø14	ø14	ø14	ø14
H x L (mm)	760 x 200	950 x 90	900 x 270	950 x 200	950 x 275	950 x 180
W (kg)	4,650	2,340	3,420	2,540	2,200	2,220
NR ART		**07.301.12 ***		**07.302.18**	**07.303.02**	
□ (mm)		□ 12 x 12		□ 12 x 12	□ 12 x 12	
H x L (mm)		950 x 90		950 x 200	950 x 275	
W (kg)		2,340		2,540	2,200	



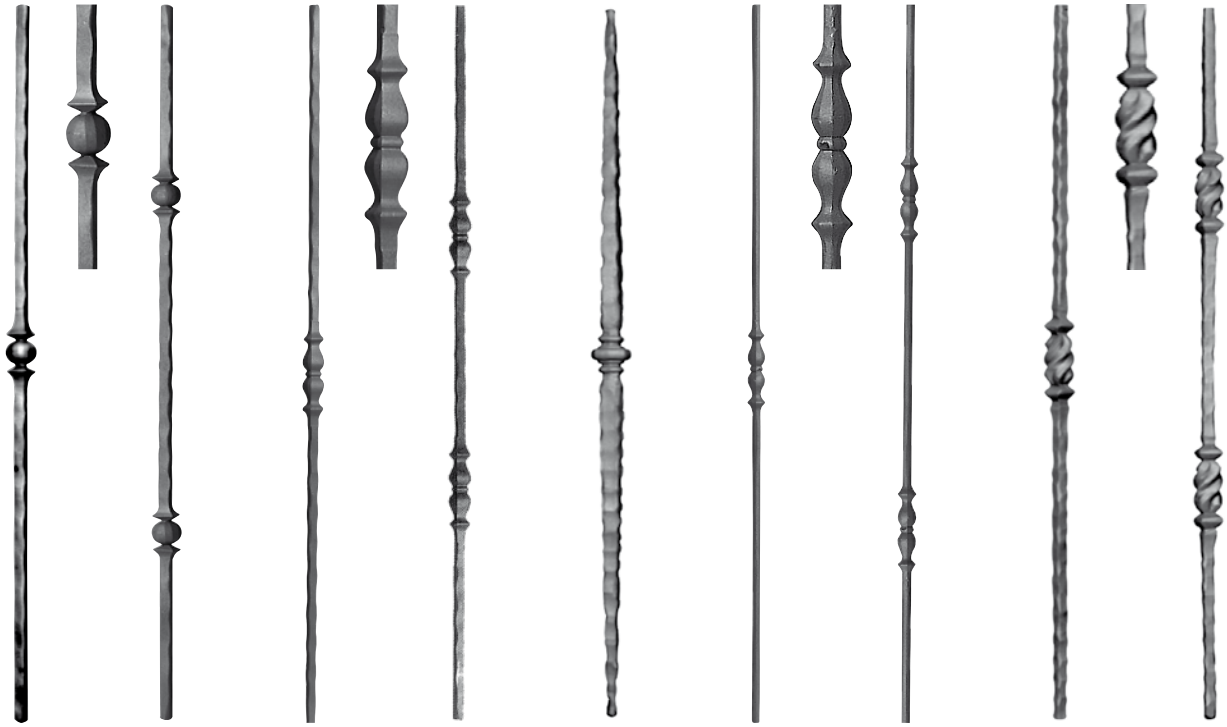
NR ART			07.310.01	07.317.01 *		07.319.01 *
⌀(mm)			⌀14	⌀14		⌀14
H x L (mm)			950 x 200	950 x 250		950 x 200
W (kg)			2,700	2,520		2,200
NR ART	**07.308.02 ***	**07.309.02**	**07.310.02 ***	**07.317.02 ***	**07.318.02 ***	**07.319.02 ***
□ (mm)	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12
H x L (mm)	950 x 180	950 x 195	950 x 200	950 x 250	950 x 210	950 x 200
W (kg)	2,280	2,300	2,700	2,520	2,040	2,200



NR ART	09.211	09.220	09.509	09.510	09.510.03	09.510.04	09.510.05	09.510.06
□ /⌀ (mm)	□ 12 x 12	□ 12 x 12	⌀ 14	⌀ 14	□ 14 x 14	□ 14 x 14	□ 12 x 12	□ 12 x 12
H (mm)	900	900	950	950	950	950	950	950
W (kg)	1,030	1,030	1,180	1,260	1,550	1,700	1,080	1,200



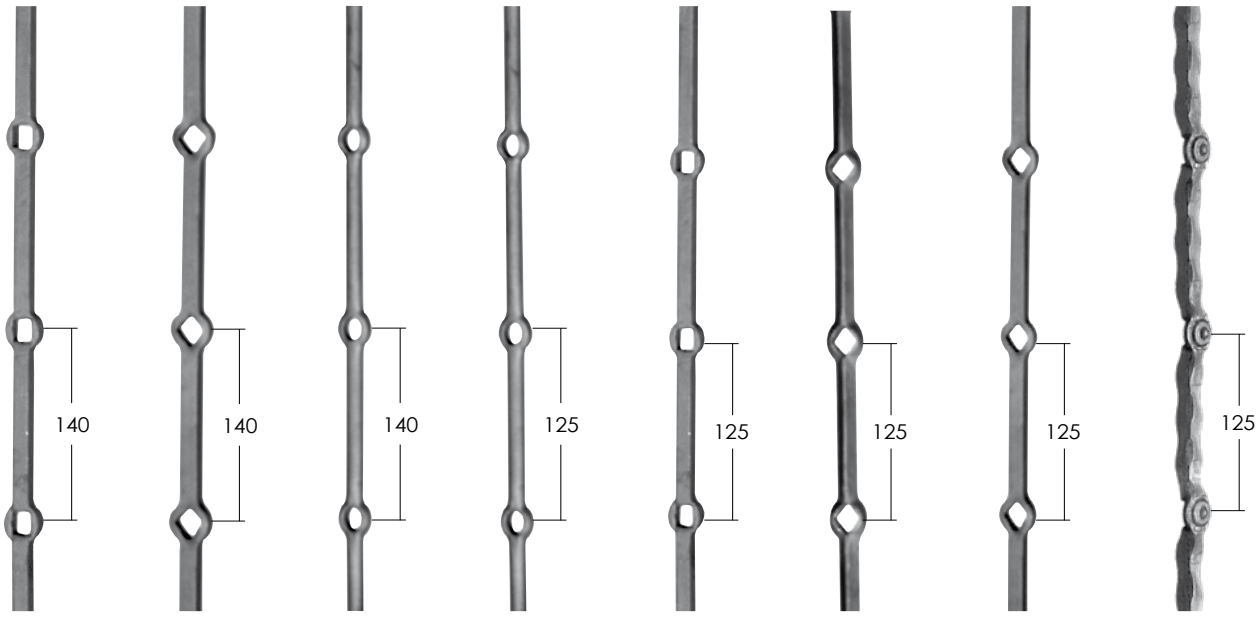
NR ART	09.515 *	09.516.01 *	09.516.02 *	09.516.03 *	09.516.04 *	09.626	09.628	09.632	09.633
□ (mm)	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12	□ 12 x 12
H (mm)	950	1000	1000	1000	1000	950	950	950	950
W (kg)	1,200	1,200	1,100	1,200	1,100	1,030	1,030	1,080	1,080



NR ART	11.002	11.003	11.011.01	11.011.02	11.012	11.017.01	11.017.02	11.036	11.037
▯ / □ (mm)	□ 14 x 14	□ 14 x 14	□ 14 x 14	□ 14 x 14	□ 14/20	⌀12	⌀12	□ 14 x 14	□ 14 x 14
H (mm)	950	950	1000	1000	950	1000	1000	950	950
W (kg)	1,350	1,640	1,250	1,640	1,960	1,050	1,250	1,580	1,900



NR ART	11.048	11.053.21	11.054	11.055	11.057	11.059	11.061	11.312.02	11.312.03
□ (mm)	□ 25 x 25	□ 25 x 25	□ 25 x 25	□ 25 x 25	□ 25 x 25	□ 25 x 25	□ 25 x 25	□ 30 x 30	□ 30 x 30
H (mm)	1200	1200	1200	1200	1200	1200	1200	1000	1000
W (kg)	5,900	5,800	7,460	4,750	6,740	5,600	5,600	9,500	9,100



NR ART	08.001	08.013	08.023	08.115	08.119	08.123	08.127	08.105
□ (mm)	□ 14 x 14	□ 14 x 14	⌀14 x 14	⌀14 x 14	□ 14 x 14	◇ 14 x 14	□ 14 x 14	□ 14 x 14
H (mm)	2000	2000	2000	2000	2000	2000	2000	2000
Otw.	□ 14 /14 otw.	◇14 /14 otw.	⌀ 14 /14 otw.	⌀ 14 /15 otw.	□ 14 /15 otw.	◇14 /14 otw.	◇14 /14 otw.	
W (kg)	3,080	3,080	2,420	2,420	3,080	3,080	3,080	2,780



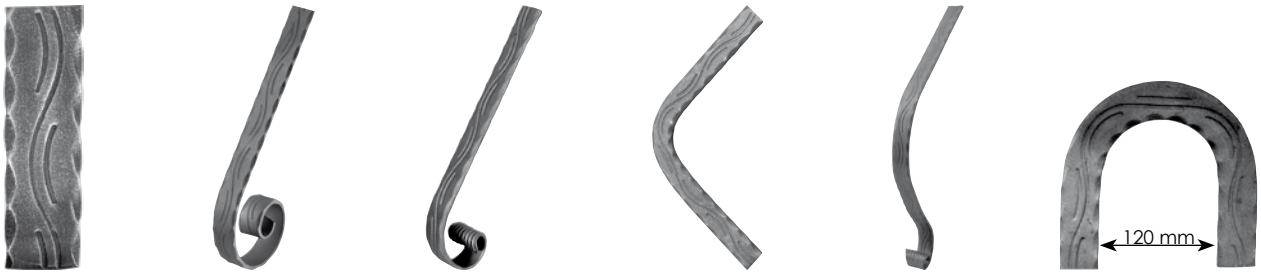
NR ART	12.005	12.017	12.018.01	12.021	12.025	12.028
▯ (mm)	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8
H x L (mm)	3000	350 x 100	300 x 180	600	300 x 300	200 x 200
W (kg)	7,500	1,200	1,500	2,000	1,500	1,050



NR ART	12.029	12.032	12.032.01	12.034	12.035	12.036
▯ (mm)	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8
H x L (mm)	3000	350 x 100	300 x 180	600	300 x 300	200 x 200
W (kg)	7,500	1,200	1,500	2,000	1,500	1,050



NR ART	12.038	12.040.01	12.041	12.042.01	12.043.01	12.044
▯ (mm)	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8
H x L (mm)	3000	300 x 180	200 x 200	350 x 100	600	300 x 300
W (kg)	7,500	1,500	1,050	1,200	2,000	1,500



NR ART	12.045	12.046.01	12.047	12.047.01	12.048.01	12.049
▯ (mm)	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8	▯ 40 x 8
H x L (mm)	3000	300 x 180	350 x 100	300 x 300	600	200 x 200
W (kg)	7,500	1,500	1,200	1,500	2,000	1,050



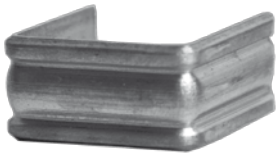
NR ART	12.053	12.053.01	12.055	12.056	12.056.01	12.057.02	12.058.01
H x L (mm)	3000	400	300 x 300	300 x 100	300 x 170	600	200 x 200
▭	40 x 8	40 x 8	40 x 8	40 x 8	40 x 8	40 x 8	40 x 8
W (kg)	7,500	1,700	1,050	1,200	1,500	2,000	1,050
NR ART	**12.054 ***	**12.054.01 ***	**12.055.01 ***	**12.057 ***	**12.057.01 ***	**12.058 ***	**12.058.02 ***
▭	50 x 10	50 x 10	50 x 10	50 x 10	50 x 10	50 x 10	50 x 10
W (kg)	9,400	2,100	1,500	1,500	1,940	2,800	1,500



NR ART	12.063	12.068	12.072	12.076	12.078
H x L (mm)	3000	300 x 170	300 x 100	400	600
⌓	40 x 8	40 x 8	40 x 8	40 x 8	40 x 8
W (kg)	5,600	1,400	0,960	1,200	1,700
NR ART	**12.066 ***	**12.070 ***	**12.075 ***	**12.077 ***	**12.080 ***
⌓	50 x 10	50 x 10	50 x 10	50 x 10	50 x 10
W (kg)	9,200	1,800	1,560	1,980	2,750



NR ART	12.084	12.084.05	12.085.05	12.086	12.086.12	12.087	12.087.04
H x L (mm)	3000	300 x 300	200 x 200	400	300 x 100	300 x 170	600
⌒	50 x 14	50 x 14	50 x 14	50 x 14	50 x 14	50 x 14	50 x 14
W (kg)	13,000	2,200	2,200	2,900	2,200	2,820	3,900
NR ART	**12.084.01**	**12.084.06**	**12.085.06**	**12.086.01**	**12.086.13**	**12.087.01**	**12.087.05**
⌒	40 x 12	40 x 12	40 x 12	40 x 12	40 x 12	40 x 12	40 x 12
W (kg)	9,000	1,450	1,450	1,950	1,480	1,880	2,610



NR ART	▯ (mm)	A x B (mm)	W (kg)
12.135.12	14 x 2	□ 12 x 12	0,011
12.135.14	14 x 2	□ 14 x 14	0,012
12.135.18	14 x 2	▭ 18 x 12	0,013
12.135.24	14 x 2	▭ 24 x 12	0,015



NR ART	12.001	12.096	12.108.01	12.108	12.110	12.114	12.118	12.131	12.141
▯ (mm)	25 x 6	20 x 10	25 x 8	14 x 4	18 x 5	14 x 3	14 x 4	14 x 2	17 x 2
H (mm)	3000	3000	3000	4000	4000	3000	4000	1200	1200
W (kg)	3,500	4,500	3,500	1,650	2,000	0,860	1,300	0,220	0,260
NR ART	**12.003**	**12.096.01 ***	**12.108.02**	**12.109**	**12.111**	**12.115**	**12.119**	**12.133**	**12.143**
▯ (mm)	30 x 6	12 x 6	30 x 8	18 x 5	14 x 4	16 x 4	16 x 5	14 x 2	17 x 2
H (mm)	3000	3000	3000	4000	4000	3000	4000	3000	3000
W (kg)	4,200	1,600	3,700	2,800	1,450	1,260	2,000	0,600	0,660
NR ART	**12.006.10**		**12.108.05**			**12.116**	**12.120**		**12.152**
▯ (mm)	40 x 6		40 x 8			20 x 4	21 x 6		17 x 1,5
H (mm)	3000		3000			3000	4000		2000
W (kg)	5,650		4,450			1,570	3,000		0,320



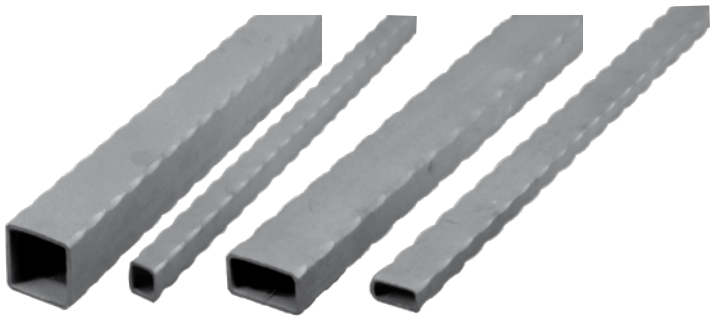
NR ART	H (mm)	□ (mm)	W (kg)
12.175	3000	□ 12 x 12	3,000
12.176	3000	□ 14 x 14	4,200



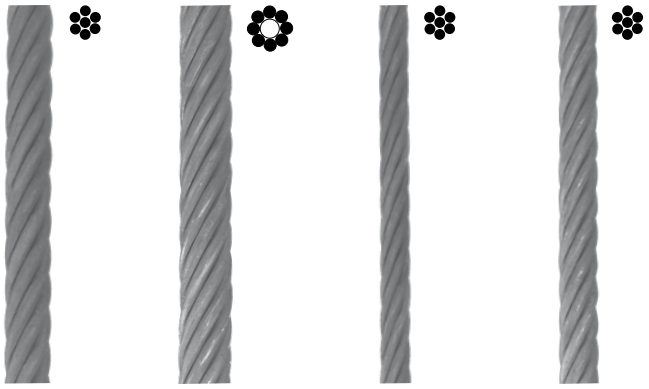
NR ART	H (mm)	⌀ (mm)	W (kg)
12.196.14	3 000	⌀ 6	0,650
12.196.15	3 000	⌀ 8	1,150
12.196.16	3 000	⌀ 10	1,850
12.196.17	3 000	⌀ 12	2,650
12.196.18	3 000	⌀ 14	3,600
12.196.19	3 000	⌀ 16	4,700
12.196.20	3 000	⌀ 20	7,300
12.196.21	3 000	⌀ 24	10,500



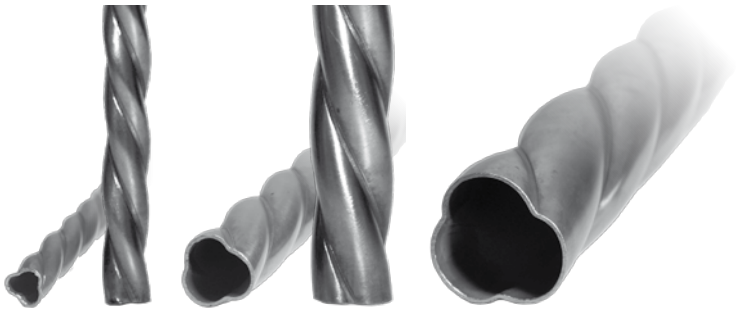
NR ART	H (mm)	□ (mm)	W (kg)
12.213	3 000	□ 12 x 12	3,000
12.214	3 000	□ 14 x 14	4,200
12.215 *	3 000	□ 16 x 16	5,800



NR ART	H (mm)	□ (mm)	G (mm)	W (kg)
12.237	3 000	□ 40 x 40	2,5	8,950
12.239	3 000	□ 30 x 30	2,0	5,450
12.241	3 000	□ 25 x 25	2,0	4,500
12.243	3 000	□ 20 x 20	2,0	3,540
12.245	3 000	▭ 60 x 40	2,5	13,300
12.249	3 000	▭ 50 x 30	2,5	8,500
12.250.01	3 000	▭ 40 x 30	2,0	6,450
12.251	3 000	▭ 40 x 20	2,0	5,450
12.253	3 000	▭ 30 x 20	2,0	4,500



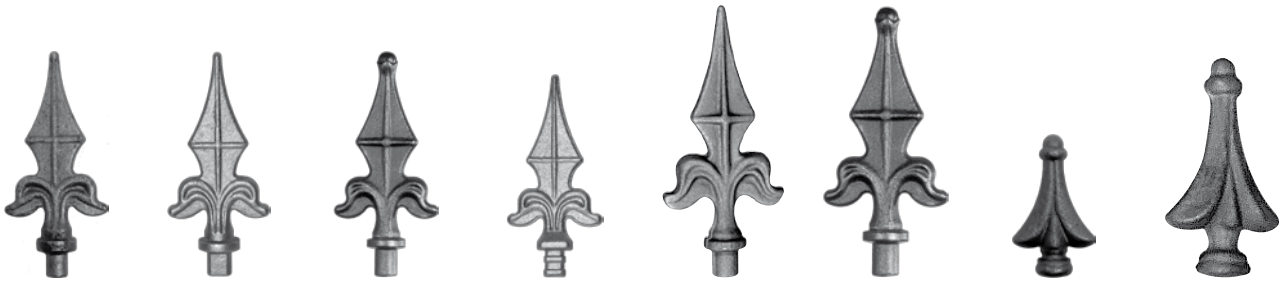
NR ART	H (mm)	⌀ (mm)		W (kg)
12.305.12	2 000	⌀ 38	6 x ⌀12	13,300
12.305.13	3 000	⌀ 38	6 x ⌀12	19,950
12.305.22	2 000	⌀ 47	8 x ⌀12	18,200
12.305.23	3 000	⌀ 47	8 x ⌀12	27,300
12.305.32	2 000	⌀ 25	6 x ⌀ 8	5,720
12.305.33	3 000	⌀ 25	6 x ⌀ 8	8,580
12.305.42	2 000	⌀ 30	6 x ⌀10	9,440
12.305.43	3 000	⌀ 30	6 x ⌀10	14,160



NR ART	H (mm)	⌀ (mm)	G (mm)	W (kg)
12.420.20	3 000	⌀ 20	2,0	2,430
12.425.20	3 000	⌀ 25	2,0	3,090
12.430.20	3 000	⌀ 30	2,0	4,140
12.442.20	3 000	⌀ 42	2,0	5,970
12.448.20	3 000	⌀ 48	2,0	6,840
12.476.20	3 000	⌀ 76	2,0	10,950



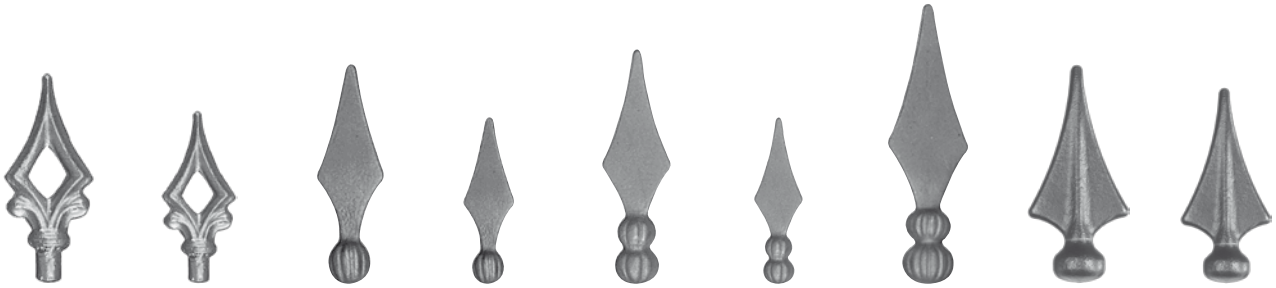
NR ART	13.006	13.041	13.042	13.045	13.048	13.048.01	13.049	13.050
H (mm)	110	125	155	130	110	76	135	123
L (mm)	55	55	70	50	60	43	70	67
⌀ (mm)	⌀ 25	⌀ 13	⌀ 17	⌀ 13	⌀ 20	⌀ 16	⌀ 26	⌀ 20
W (kg)	0,150	0,120	0,280	0,130	0,120	0,064	0,260	0,130



NR ART	13.052	13.052.01	13.052.02	13.052.03	13.053	13.053.02	13.055	13.056
H (mm)	130	130	130	115	155	155	80	125
L (mm)	60	60	60	53	70	70	45	65
⌀ (mm)	⌀ 12	□ 15 x 15	⌀ 12	□ 12 x 12	⌀ 16	⌀ 16	⌀ 20	⌀ 25
W (kg)	0,160	0,140	0,180	0,100	0,260	0,285	0,135	0,360



NR ART	13.058	13.059	13.060	13.060.01	13.060.02	13.061	13.061.02	13.062
H (mm)	125	135	115	78	115	140	140	102
L (mm)	55	65	60	43	60	70	70	53
⌀ (mm)	⌀ 20	⌀ 25	⌀ 20	⌀ 16	⌀ 20	⌀ 26	⌀ 26	⌀ 18
W (kg)	0,170	0,230	0,148	0,083	0,170	0,260	0,280	0,095



NR ART	13.064.01	13.064.02	13.071	13.071.01	13.072	13.072.01	13.073	13.077	13.077.01
H (mm)	120	100	125	95	135	95	160	125	110
L (mm)	55	45	40	30	40	33	50	60	50
⌀ (mm)	⌀ 14	⌀ 12	⌀ 25	⌀ 20	⌀ 25	⌀ 20	⌀ 30	⌀ 32	⌀ 25
W (kg)	0,260	0,130	0,160	0,096	0,170	0,100	0,320	0,250	0,160



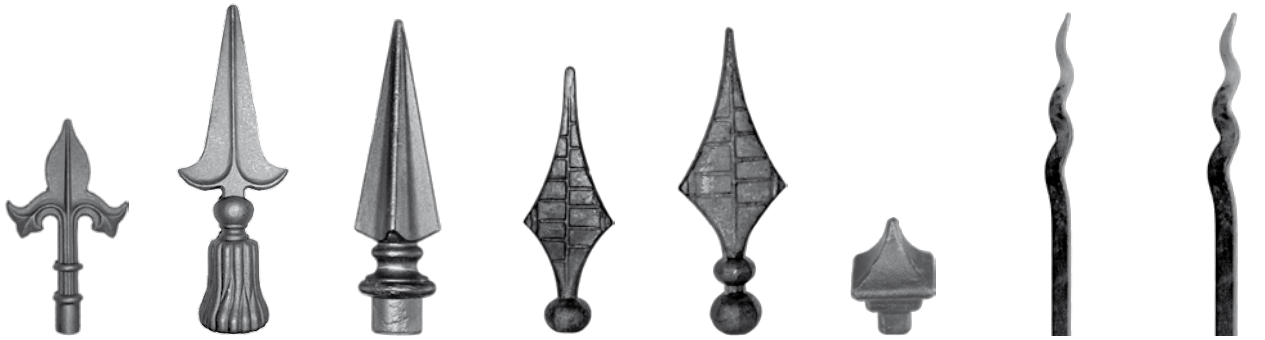
NR ART	13.078	13.078.01	13.078.02	13.080	13.088	13.089	13.091	13.092
H (mm)	140	130	120	155	110	160	110	125
L (mm)	60	50	43	65	20	25	23	30
⌀ / □ (mm)	□ 15	□ 15 x 15	□ 12 x 12	⌀ 16	□ 20	□ 25	□ 16 x 16	□ 20
W (kg)	0,255	0,150	0,120	0,270	0,140	0,330	0,130	0,220



NR ART	13.092.01	13.093	13.094	13.095	13.097	13.098.01	13.098.02	13.098.03
H (mm)	80	160	190	95	60	150	120	88
L (mm)	25	40	50	27	30	40	35	28
⌀ / □ (mm)	□ 15	□ 32	□ 40	□ 12	□ 24	⌀ 33	⌀ 30	⌀ 24
W (kg)	0,097	0,620	1,130	0,180	0,200	0,400	0,220	0,115



NR ART	13.099.01	13.099.02	13.102	13.103.01	13.103.02	13.103.03	13.103.04	13.103.05
H (mm)	120	155	140	180	155	150	165	150
L (mm)	65	90	50	56	60	65	60	55
⌀ / □ (mm)	□ 25	□ 30	⌀ 13	⌀ 14	□ 14 - 18	⌀ 16	⌀ 24	⌀ 15
W (kg)	0,230	0,700	0,160	0,233	0,310	0,300	0,230	0,280



NR ART	13.107	13.110	13.111.01	13.117	13.118	13.218.01	13.222.07	13.222.08
H (mm)	145	235	210	180	205	57	250	250
L (mm)	80	80	58	60	65	38		
⌀ / □ (mm)	□ 15	⌀ 50	⌀ 32	⌀ 29	⌀ 35	□ 16	□ 12	□ 14
W (kg)	0,230	0,850	1,090	0,285	0,535	0,190	0,240	0,310



NR ART	13.401	13.407.01 *	13.407.02	13.407.03	13.411 *	13.411.01	13.413	13.414
H (mm)	120	142	112	87	120	120	120	92
L (mm)	48				40	40	42	⌀ 36
⌀ / □ (mm)	□ 16	□ 26	□ 20	□ 16	□ 12	□ 12	□ 14 - 18	⌀ 12
W (kg)	0,170	0,320	0,160	0,080	0,100	0,090	0,108	0,360



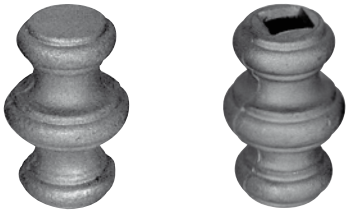
NR ART	13.416	13.419	13.421	13.421.01	13.421.02	13.421.03	13.424	13.427	13.433
H (mm)	132	155	148	148	142	107	118	117	145
L (mm)	86	70	36	36	28	26	35	36	
⌀ / □ (mm)	⌀ 16	⌀ 24	□ 16	□ 20	□ 16	□ 16	⌀ 32	⌀ 32	⌀ 35
W (kg)	0,300	0,360	0,480	0,480	0,340	0,200	0,310	0,34	0,430



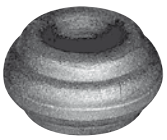
NR ART	13.439	13.450	13.450.01	13.451	13.451.01 *	13.453	13.454	13.454.01	13.454.02
H (mm)	111	107	107	100	100	155	48	214	167
L (mm)	65	52	52	54	54	39	⌀ 33	36	33
⌀ / □ (mm)	⌀ 14	⌀ 28	⌀ 28	⌀ 16	⌀ 16	⌀ 36	⌀ 20	□ 18	□ 18
W (kg)	0,190	0,200	0,220	0,280	0,300	0,420	0,160	0,680	0,450



NR ART	H (mm)	L (mm)	⌀ / □ (mm)	W (kg)
13.133	39	40	bez otw.	0,200
13.135	39	40	⌀ 12,5	0,150
13.136	39	40	⌀ 14,5	0,140
13.141	39	40	□ 12	0,140
13.150	44	45	□ 14	0,200



NR ART	H (mm)	L (mm)	⌀ / □ (mm)	W (kg)
13.134	67	40	bez otw.	0,260
13.142	67	40	□ 12,5	0,180
13.147	67	45	⌀ 14,5	0,300
13.152	67	45	□ 14,5	0,275
13.153	67	45	□ 16,5	0,240

NR ART	H (mm)	L (mm)	⌀ / □ (mm)	W (kg)
13.168	22	40	⌀ 14,5	0,140
13.169	22	40	□ 14,5	0,115
13.169.01	22	40	□ 16,5	0,100
13.169.02	22	40	□ 12,5	0,120




NR ART	H (mm)	L (mm)	⌀ / □ (mm)	W (kg)
13.169.03	22	33	□ 12,5	0,100
13.169.05	22	38	□ 14,5	0,160
13.169.06	22	38	□ 16,5	0,155
13.169.07	35	55	□ 20,5	0,345



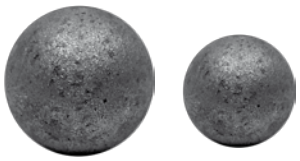
NR ART	13.186.01	13.186.02	13.186.03	13.186.04	13.186.05	13.186.06	13.186.07	13.186.08	13.186.09	13.186.10
H (mm)	140	140	140	140	140	70	70	70	130	140
L (mm)	35	30	26	33	28	30	30	35	25	24
⌀ / □ (mm)	□ 20	□ 16	□ 12	⌀ 16 -18	⌀ 12 -14	⌀ 12 -16	□ 12 -14	□ 16 -20	□ 14	⌀ 12
W (kg)	0,850	0,580	0,380	0,575	0,385	0,260	0,260	0,380	0,380	0,360



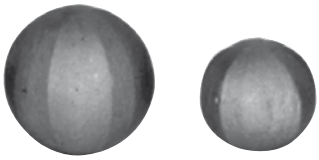
NR ART	13.214	13.217	13.217.01 *	13.219	13.220	13.227 *
H (mm)	90	90	150	80	100	130
⌀ / □ (mm)	⌀ 40	⌀ 50	⌀ 75	⌀ 28	⌀ 50	⌀ 75
W (kg)	0,500	0,780	3,060	0,410	0,900	1,880



NR ART	13.235.01	13.235.02	13.235.03	13.235.06	13.235.07	13.236	13.238
H x L (mm)	60	85	125	60	85	45	70
⌀ / □ (mm)	□ 25	□ 40	□ 60	⌀ 27	⌀ 42	⌀ 30	⌀ 55
W (kg)	0,180	0,540	1,680	0,160	0,550	0,140	0,800



KULE PEŁNE GŁADKIE		
NR ART	ø (mm)	W (kg)
13.240	15	0,017
13.241	20	0,032
13.242	25	0,064
13.243	30	0,116
13.244	35	0,186
13.245	40	0,260
13.246	50	0,510



KULE PEŁNE		
NR ART	ø (mm)	W (kg)
13.258	20	0,032
13.259	25	0,064
13.260	30	0,111
13.261	35	0,180
13.262	40	0,300
13.263	50	0,520
13.264	60	0,860

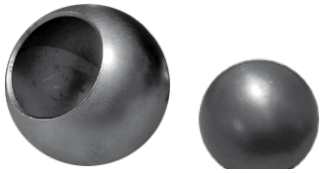


KULE PEŁNE		
NR ART	ø (mm)	W (kg)
13.450.22	22	0,030
13.450.32	32	0,115
13.450.40	40	0,250
13.450.50	50	0,500



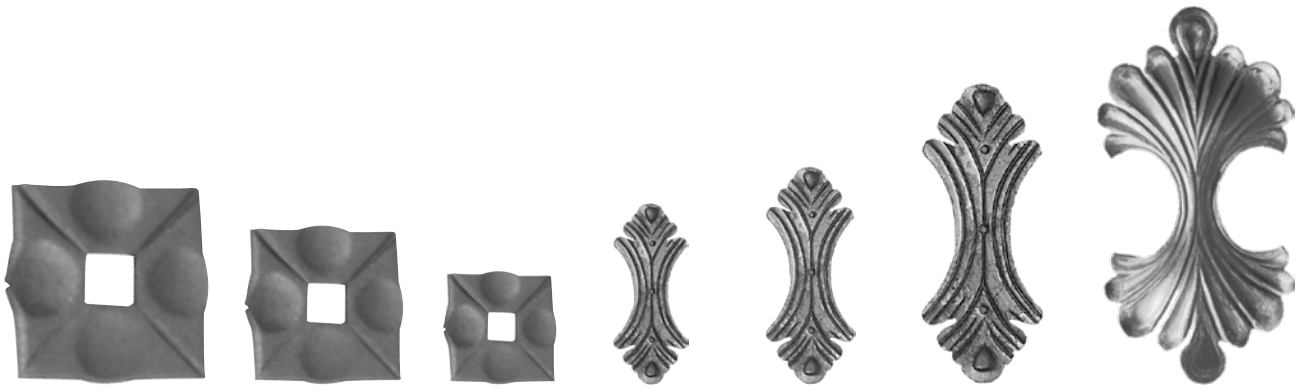


KULE PUSTE CAŁKOWICIE ZAMKNIĘTE			
NR ART	ø (mm)	G (mm)	W (kg)
13.249.30	30	1,5	0,022
13.249.40	40	1,5	0,068
13.249.50	50	1,5	0,086
13.249.60	60	1,5	0,135
13.249.70	70	1,5	0,175
13.249.80	80	1,5	0,237
13.249.90	90	1,5	0,301
13.249.100	100	1,5	0,368
13.249.120	120	1,5	0,674
13.249.150	150	1,5	1,420
13.249.200	200	1,5	1,818

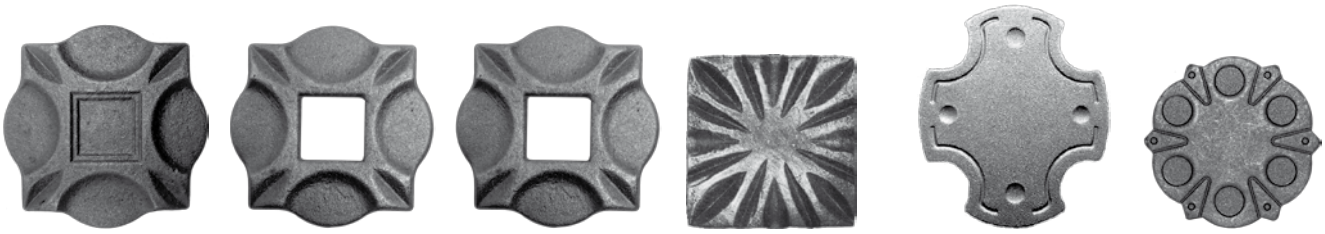


KULE PUSTE Z OTWOREM				
NR ART	ø (mm)	Otw.	G (mm)	W (kg)
13.251.15	15	□ 7,3	1,5	0,004
13.251.20	20	□ 9,5	1,5	0,009
13.251.25	25	□ 11	1,5	0,019
13.251.30	30	□ 13	1,5	0,032
13.251.35	35	□ 19	1,5	0,041
13.251.40	40	ø 20,6	1,5	0,062
13.251.50	50	ø 29,7	1,5	0,090
13.251.60	60	ø 30,3	1,5	0,125
13.251.70	70	ø 36,4	1,5	0,175
13.251.80	80	ø 42,0	1,5	0,245
13.251.90	90	ø 44,7	1,5	0,350
13.251.100	100	ø 54,3	1,5	0,400
13.251.120	120	ø 63,3	1,5	0,725
13.251.150	150	ø 78,3	1,5	1,100

PÓŁKULE			
NR ART	ø (mm)	G (mm)	W (kg)
13.280.40	40	1,5	0,026
13.280.50	50	1,5	0,045
13.280.60	60	1,5	0,068
13.280.70	70	1,5	0,089
13.280.80	80	1,5	0,126
13.280.90	90	1,5	0,154
13.280.100	100	1,5	0,199
13.280.120	120	1,5	0,331
13.280.150	150	1,5	0,502
13.280.200	200	1,5	0,908



NR ART	13.303	13.305	13.306	13.310.01	13.310.02	13.310.03	13.310.05
H x L (mm)	90 x 90	70 x 70	50 x 50	120 x 50	148 x 60	200 x 85	250 x 130
□ (mm)	□ 26	□ 21	□ 12				
G (mm)	8	8	6	4	4	4	4
W (kg)	0,450	0,278	0,105	0,100	0,140	0,310	0,580



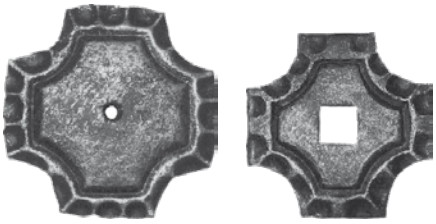
NR ART	13.311	13.312	13.313	13.314.19 *	13.426	13.428
H x L (mm)	100 x 100	100 x 100	100 x 100	85 x 85	140 x 120	⌀ 105
□ (mm)	bez otw.	□ 25	□ 30	bez otw.	bez otw.	bez otw.
G (mm)	10	10	10	10	3	5
W (kg)	0,465	0,380	0,360	0,390	0,260	0,280



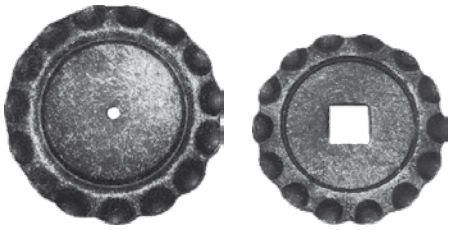
NR ART	13.432	13.432.01	13.432.02	13.433.01	13.433.02	13.434
H x L (mm)	100 x 100	80 x 80	120 x 120	80 x 80	120 x 120	120 x 120
G (mm)	7	7	7	7	7	7
W (kg)	0,600	0,400	0,800	0,400	0,800	0,800



NR ART	13.434.01	13.434.02	13.437 *	13.440	13.547	13.550	13.553
H x L (mm)	100 x 100	80 x 80	100 x 100	60 x 60	154	160 x 105	135 x 35
G (mm)	8	8	8	8		6	
W (kg)	0,600	0,400	0,600	0,150	0,180	0,450	0,210



NR ART	H x L (mm)	□ (mm)	W (kg)
13.313.11	65 x 65	bez otw.	0,100
13.313.12	75 x 75	bez otw.	0,150
13.315.12	65 x 65	□ 12	0,100
13.316.16	75 x 75	□ 16	0,160
13.316.20	75 x 75	□ 20	0,150
13.316.25	75 x 75	□ 25	0,140



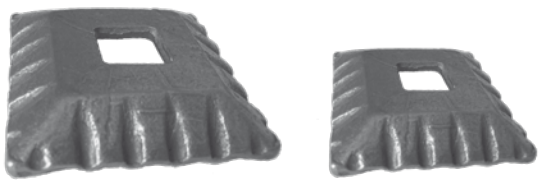
NR ART	⌀ (mm)	□ (mm)	W (kg)
13.313.13	⌀ 65	bez otw.	0,110
13.313.14	⌀ 75	bez otw.	0,160
13.317.12	⌀ 65	□ 12	0,100
13.318.16	⌀ 75	□ 16	0,140
13.318.20	⌀ 75	□ 20	0,130
13.318.25	⌀ 75	□ 25	0,120



NR ART	H x L (mm)	□ (mm)	W (kg)
13.319	80 x 80	□ 30,5	0,280
13.321	80 x 80	□ 40,5	0,280
13.322	60 x 60	□ 25,5	0,180
13.323	60 x 60	□ 30,5	0,180
13.326	50 x 50	□ 20,5	0,110
13.327	40 x 40	□ 12,5	0,070
13.328	40 x 40	□ 14,5	0,070
13.329	40 x 40	□ 16,5	0,070



NR ART	H (mm)	⌀ (mm)	W (kg)
13.333	20	⌀ 80	0,230
13.334	20	⌀ 60	0,140
13.336	20	⌀ 40	0,050



NR ART	H x L (mm)	□ (mm)	W (kg)
13.435.20	75 x 75	□ 20	0,190
13.435.25	75 x 75	□ 25	0,180
13.435.30	75 x 75	□ 30	0,170
13.435.40	75 x 75	□ 40	0,160
13.435.41 *	75 x 75	▯ 40 x 10	0,180
13.435.42	75 x 75	▯ 40 x 20	0,180
13.436.12	50 x 50	□ 12	0,100
13.436.14	50 x 50	□ 14	0,090
13.436.16	50 x 50	□ 16	0,080
13.436.20	50 x 50	□ 20	0,070



NR ART	⌀ (mm)	□ (mm)	W (kg)
13.439.01 *	⌀ 64	bez otw.	0,060
13.439.12 *	⌀ 64	□ 12	0,056
13.439.14 *	⌀ 64	□ 14	0,055
13.439.02 *	⌀ 98	bez otw.	0,180
13.439.20 *	⌀ 98	□ 20	0,160
13.439.25 *	⌀ 98	□ 25	0,160
13.439.30 *	⌀ 98	□ 30	0,160
13.439.40 *	⌀ 98	□ 40	0,160
13.439.41 *	⌀ 98	▯ 40 x 10	0,140
13.439.42 *	⌀ 98	▯ 40 x 20	0,140



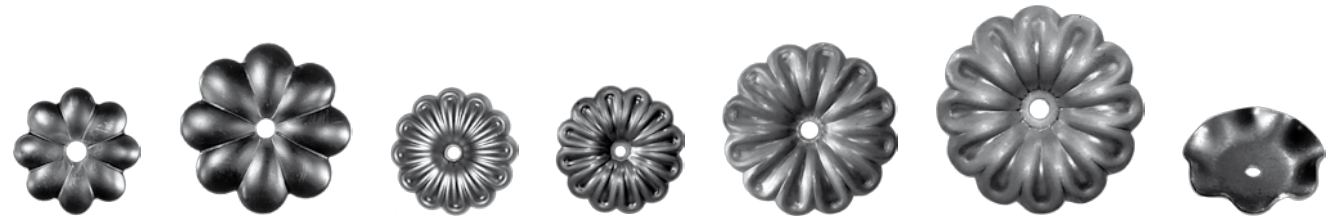
NR ART	H (mm)	□ (mm)	G (mm)	W (kg)
13.440.01	100 x 100	bez otw.	2,5	0,200
13.440.02	78 x 78	bez otw.	2,5	0,120
13.441.12	78 x 78	□ 12	2,5	0,120
13.441.14	78 x 78	□ 14	2,5	0,120
13.441.16	78 x 78	□ 16	2,5	0,120
13.441.20	100 x 100	□ 20	2,5	0,180
13.441.25	100 x 100	□ 25	2,5	0,170
13.441.30	100 x 100	□ 30	2,5	0,160
13.441.40	100 x 100	□ 40	2,5	0,150



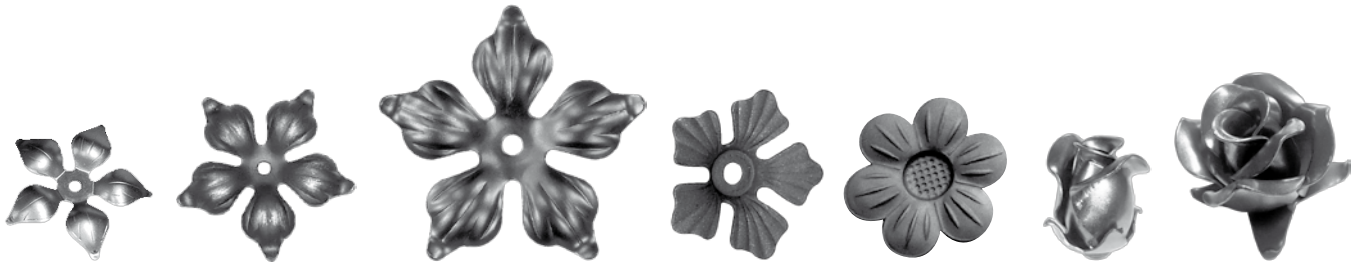
NR ART	⌀ (mm)	⌀ otw. (mm)	G (mm)	H (mm)
13.483	⌀ 98/55	bez otw.	1,0	30,0
13.483.32	⌀ 98/55	⌀ 32	1,0	30,0
13.483.42	⌀ 98/55	⌀ 42	1,0	30,0
13.483.52	⌀ 98/55	⌀ 52	1,0	30,0



NR ART	□ (mm)	□ Otw. (mm)	G (mm)	H (mm)
13.484.12	44 x 44	□ 12	1,0	20,0
13.484.14	44 x 44	□ 14	1,0	20,0
13.486.16	60 x 60	□ 16	1,0	20,0
13.486.20	60 x 60	□ 20	1,0	20,0
13.488.25	80 x 80	□ 25	1,0	30,0
13.488.30	80 x 80	□ 30	1,0	30,0
13.488.32	80 x 80	▯ 30 x 20	1,0	30,0
13.488.42	80 x 80	▯ 40 x 20	1,0	30,0
13.489.30	92 x 92	□ 30	1,0	30,0
13.489.40	92 x 92	□ 40	1,0	30,0
13.489.53	92 x 72	▯ 50 x 30	1,0	30,0
13.490.50	108 x 108	□ 50	1,0	30,0
13.491.64	112 x 92	▯ 60 x 40	1,0	30,0
13.492.60	122 x 122	□ 60	1,0	30,0
13.492.80	122 x 122	□ 80	1,0	30,0



NR ART	14.005.06	14.005.07	14.013 *	14.014	14.015	14.016	14.017 *
ϕ (mm)	ϕ 60	ϕ 90	ϕ 70	ϕ 70	100	120	ϕ 50
G (mm)	2	2	0,8	2	2	2	1
W (kg)	0,005	0,100	0,020	0,060	0,100	0,180	0,240



NR ART	14.020	14.021	14.021.01	14.022	14.027.01	14.032	14.033
H (mm)						45	50
ϕ (mm)	ϕ 70	ϕ 90	ϕ 135	ϕ 86	ϕ 60	40	55
G (mm)	1	2	2	2	2	1,5	1,5
W (kg)	0,020	0,060	0,160	0,060	0,036	0,075	0,140



NR ART	14.034	14.035.02	14.035.03	14.035.12	14.036	14.037	14.038
H x L (mm)	50	43	48	45	80 x 35	85 x 45	70 x 35
ϕ (mm)	75	ϕ 35	ϕ 60	ϕ 45			
G (mm)	1,5	1,5	1,5	1,5	1	0,8	0,8
W (kg)	0,205	0,053	0,120	0,080	0,020	0,010	0,006



NR ART	14.039.01	14.039.02	14.039.03	14.039.04	14.039.05	14.039.10	14.039.11	14.039.14
H (mm)	70	60	50	200	150	155	135	125
L (mm)				140	100	110	85	75
W (kg)	1,230	0,675	0,470	1,220	0,720	0,320	0,200	0,138



NR ART	14.040	14.041	14.042	14.059	14.060	14.061	14.062	14.063	14.064
H x L (mm)	55 x 50	75 x 70	110 x 110	155 x 60	155 x 60	110 x 40	110 x 40	90 x 30	90 x 30
G (mm)	0,8	0,8	0,8			2	2	2	2
W (kg)	0,006	0,010	0,039	0,110	0,110	0,065	0,065	0,036	0,036



NR ART	14.069	14.070	14.073	14.074	14.077	14.078	14.078.02
H x L (mm)	90 x 65	90 x 65	65 x 70	65 x 70	110 x 75	110 x 75	185 x 100
G (mm)	2	2	2	2	2	2	
W (kg)	0,060	0,060	0,046	0,046	0,089	0,089	0,320



NR ART	14.083.02	14.083.03	14.083.06	14.083.07	14.084.03	14.084.05	14.085 *
H x L (mm)	ϕ 90	ϕ 55	ϕ90	ϕ50	135 x 85	135 x 85	330 x 260
G (mm)					2	2	
W (kg)	0,240	0,081	0,430	0,100	0,100	0,100	1,300



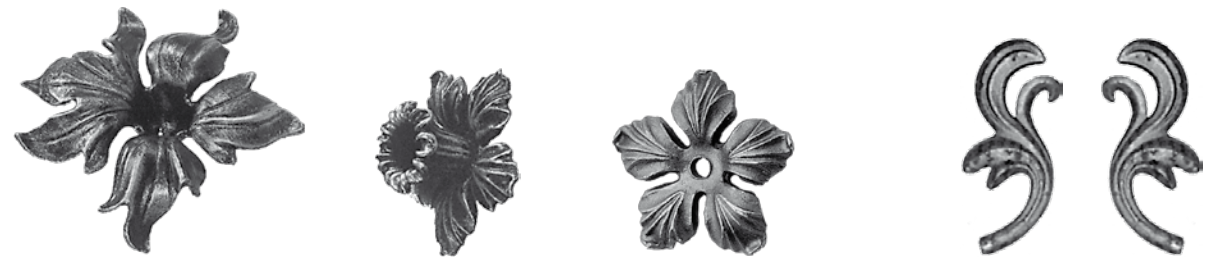
NR ART	14.087.06	14.087.08	14.087.09 *	14.087.13	14.087.14	14.087.15	14.087.16
H x L (mm)	90 x 55	240 x 70	240 x 70	140 x 110	140 x 110	190 x 160	190 x 160
G (mm)	2	2	2				
W (kg)	0,100	0,200	0,200	0,180	0,180	0,400	0,400



NR ART	14.087.17	14.087.18	14.087.19	14.087.20	14.087.21	14.087.22
H x L (mm)	155 x 140	155 x 140	250 x 150	250 x 150	220 x 105	220 x 105
W (kg)	0,280	0,280	0,460	0,460	0,290	0,290



NR ART	14.087.23	14.087.24	14.087.25	14.087.26	14.087.27	14.087.28	14.087.29
H x L (mm)	180 x 85	180 x 85	180 x 115	180 x 115	234 x 104	230 x 130	230 x 130
W (kg)	0,230	0,230	0,250	0,250	0,320	0,320	0,320



NR ART	14.087.30	14.087.31	14.087.32	14.241.13	14.241.14
H x L (mm)	160 x 160	ϕ 90 x 60	ϕ 90	125 x 52	125 x 52
W (kg)	0,330	0,180	0,120	0,100	0,100



NR ART	14.243.14	14.243.17	14.243.18	14.245.10	14.245.12
H x L (mm)	95 x 80	ϕ 70	ϕ 90	ϕ 90	ϕ 120
W (kg)	0,120	0,110	0,300	0,170	0,480



NR ART	14.291.05	14.292.12	14.292.13	14.292.14	14.292.15
H x L (mm)	135 x 110	115 x 105	115 x 105	175 x 110	175 x 110
⌀ (mm)	⌀ 14				
W (kg)	0,340	0,170	0,170	0,320	0,320



NR ART	14.301.01	14.301.02	14.301.03	14.301.04	14.301.05	14.301.06	14.301.08
H x L (mm)	450 x 160	240 x 140	70 x 50	50 x 40	200 x 205	130 x 130	210 x 105
G (mm)			2	2	2	2	
W (kg)	0,540	0,220	0,040	0,020	0,140	0,080	0,140



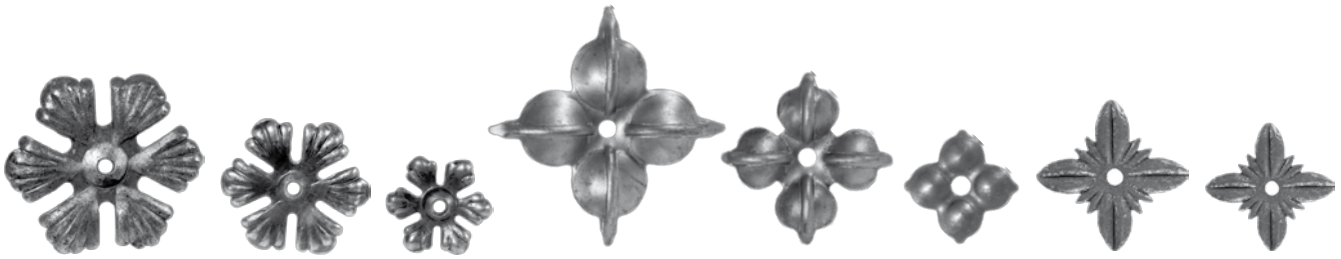
NR ART	14.301.11	14.301.12	14.301.13	14.301.14	14.301.21	14.301.22	14.301.28
H x L (mm)	75 x 50	75 x 50	55 x 40	55 x 40	70 x 60	40 x 45	40 x 30
W (kg)	0,045	0,045	0,020	0,020	0,320	0,140	0,060



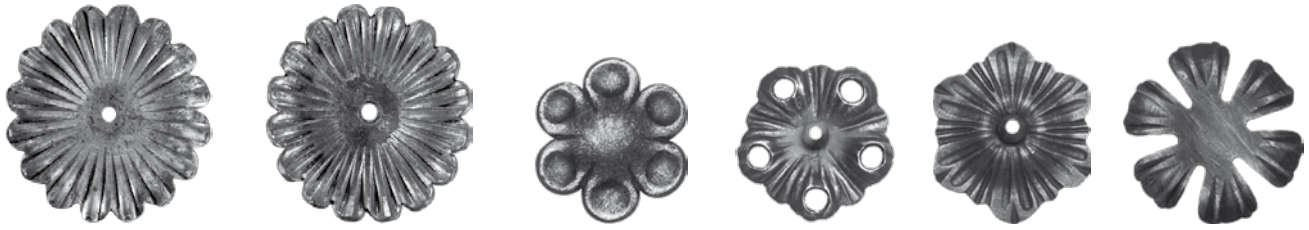
NR ART	14.302.01 *	14.302.02 *	14.302.03 *	14.302.04	14.302.05	14.302.06	14.302.07
H x L (mm)	110	80	65	150 x 140	125 x 115	95 x 90	75 x 70
W (kg)	1,340	0,740	0,360	0,260	0,140	0,080	0,040



NR ART	14.302.08	14.302.09	14.302.10	14.302.11	14.302.13
H x L (mm)	450 x 380	450 x 380	250 x 300	250 x 300	70
W (kg)	5,240	5,240	1,880	1,880	0,050



NR ART	14.303.01	14.303.02	14.303.03	14.303.04	14.303.05	14.303.06	14.303.07	14.303.08
H x L (mm)	⌀ 120	⌀ 90	⌀ 65	115 x 115	70 x 70	45 x 45	80 x 80	60 x 60
G (mm)	3	3	3	1,5	1,5	1,5	1,5	1,5
W (kg)	0,180	0,120	0,060	0,060	0,040	0,020	0,028	0,016



NR ART	14.303.09 *	14.303.10 *	14.303.14	14.303.15	14.303.16 *	14.303.17 *
H x L (mm)	⌀ 115	⌀ 115	⌀ 95	⌀ 100	120	110
G (mm)	4	4	5	4	4	5
W (kg)	0,320	0,320	0,260	0,180	0,270	0,210



NR ART	14.303.18	14.303.20	14.303.21	14.303.22	14.303.23	14.303.24
H x L (mm)	120	150	410 x 165	275 x 105	250 x 45	160 x 110
G (mm)	5	5			2	2
W (kg)	0,340	0,550	0,640	0,170	0,100	0,110



NR ART	14.303.35	14.303.36	14.304.01	14.304.02	14.304.03	14.304.04
H x L (mm)	270 x 100	270 x 100	55 x 90	55 x 90	85 x 85	85 x 85
G (mm)	2,5	2,5	4	4	4	4
W (kg)	0,250	0,250	0,100	0,100	0,140	0,140



NR ART	14.304.05*	14.304.06*	14.304.13	14.304.14	14.304.15	14.304.16
H x L (mm)	70 x 110	70 x 110	90 x 100	90 x 100	60 x 80	60 x 80
G (mm)	4	4	3	3	3	3
W (kg)	0,150	0,150	0,130	0,130	0,060	0,060



NR ART	14.304.17	14.304.18	14.305.01	14.305.02	14.305.11 *	14.305.12	14.305.13 *
H x L (mm)	80 x 150	165 x 60	115 x 125	115 x 125	85 x 50	155 x 90	240 x 65
G (mm)	1,5	3	4	4	3	4	4
W (kg)	0,200	0,300	0,210	0,210	0,050	0,190	0,250



NR ART	14.305.15	14.305.16	14.305.18	14.305.20	14.305.21	14.305.22
H x L (mm)	85 x 75	75 x 175	240 x 60	220 x 45	115 x 200	90 x 145
G (mm)	2,5	2,5	4	4	2	2
W (kg)	0,170	0,170	0,190	0,120	0,260	0,140



NR ART	14.305.34	14.305.35	14.305.36	14.305.37	14.305.41
H x L (mm)	225 x 195	225 x 195	270 x 250	270 x 250	260 x 75
G (mm)	1,5	1,5			2
W (kg)	0,320	0,320	1,340	1,340	0,280



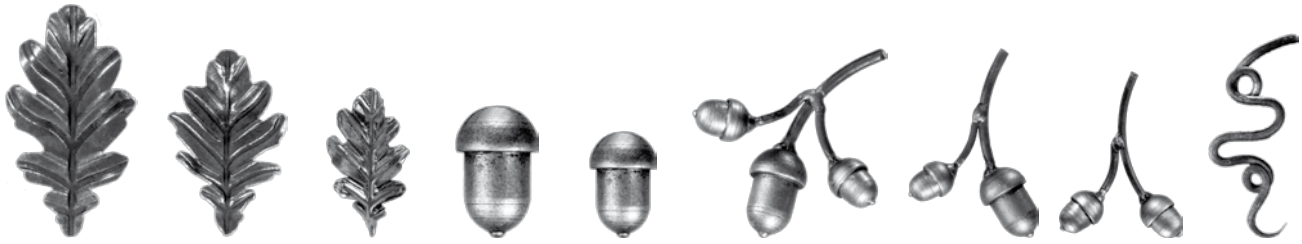
NR ART	14.305.42	14.305.43	14.305.44	14.305.45	14.306.01	14.306.02	14.306.03	14.306.04
H x L (mm)	240 x 85	240 x 85	255 x 70	235 x 85	ϕ 115 x 35	195 x 130	155 x 105	115 x 75
G (mm)	2	2	2	2		2	2	2
W (kg)	0,250	0,250	0,260	0,240	0,320	0,260	0,150	0,080



NR ART	14.306.11	14.306.13	14.306.16	14.306.17	14.306.21	14.306.22	14.306.23	14.306.25 *	14.306.26	14.306.27
H x L (mm)	200 x 140	190 x70	260 x 150	240 x 70	280 x 85	250 x 50	250 x 50	370 x 120	350 x 60	350 x 60
G (mm)	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
W (kg)	0,200	0,200	0,350	0,350	0,350	0,350	0,350	0,450	0,450	0,450



NR ART	14.306.31 *	14.306.35 *	14.306.41 *	14.306.42	14.306.51
H x L (mm)	205 x 220	55 x 55	ϕ 90	ϕ 150	140 x 140
G (mm)	2	4	1	2	2
W (kg)	0,250	0,050	0,060	0,250	0,200



NR ART	14.307.01	14.307.02	14.307.03	14.307.04	14.307.05	14.307.06	14.307.07	14.307.08	14.307.09
H x L (mm)	170 x 95	140 x 75	100 x 55	35	28	85	65	60	117 x 52
W (kg)	0,160	0,100	0,040	0,080	0,040	0,200	0,160	0,120	0,080



NR ART	14.308.01	14.308.02	14.308.03	14.308.07 *	14.308.08 *	14.318.01	14.318.02	14.318.03	14.318.04
H x L (mm)	130 x 45	115 x 45	95 x 30	340 x 210	340 x 210	270 x 65	240 x 60	210 x 55	180 x 45
G (mm)	3	3	3			1,5	1,5	1,5	1,5
W (kg)	0,080	0,060	0,040	0,800	0,800	0,150	0,100	0,080	0,060



NR ART	14.309.01	14.309.02	14.309.03	14.309.04	14.309.05	14.309.06	14.309.08	14.309.09
H x L (mm)	225 x 60	210 x 135	210 x 135	210 x 75	200 x 110	200 x 110	500	305
G (mm)	5	5	5	15	15	15	2	2
W (kg)	0,300	0,280	0,280	0,400	0,440	0,440	0,250	0,250



NR ART	14.310.01	14.310.02	14.310.03	14.310.04	14.310.05	14.311.01 *	14.311.02 *
H x L (mm)	⌀ 115 x 55	⌀ 90 x 40	145 x 90	115 x 70	85 x 50	170 x 160	170 x 145
W (kg)	0,560	0,360	0,280	0,170	0,100	0,220	0,210



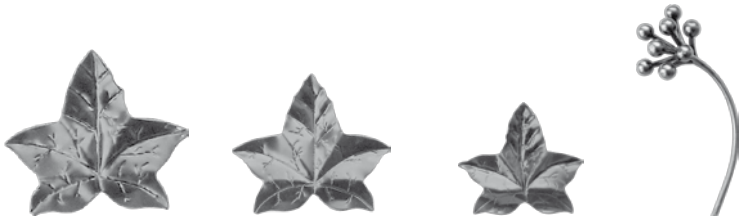
NR ART	14.311.03 *	14.311.04 *	14.311.05 *	14.312.11	14.312.12	14.312.51 *
H x L (mm)	105 x 65	105 x 65	50 x 40	200 x 240	200 x 240	155 x 145
G (mm)	2	2		1,5	1,5	1
W (kg)	0,065	0,065	0,130	0,350	0,350	0,160



NR ART	14.314.01	14.314.02	14.314.03	14.314.04	14.314.05	14.314.06	14.314.07	14.314.08
H x L (mm)	230 x 240	210 x 210	185 x 175	160 x 150	ϕ 40	ϕ 40	70 x 60	140 x 110
G (mm)	3	3	3	3				
W (kg)	0,860	0,650	0,540	0,400	0,100	0,140	0,060	0,160



NR ART	14.315.01	14.315.10	14.315.02	14.315.11	14.315.03	14.315.12	14.315.04	14.315.05	14.315.06
H x L (mm)	115 x 190	85 x 140	125 x 140	90 x 100	130 x 50	100 x 40	115 x 45	85 x 40	65 x 30
G (mm)							3	3	3
W (kg)	0,760	0,480	0,660	0,480	0,300	0,260	0,110	0,080	0,050



NR ART	14.317.01	14.317.02	14.317.03	14.317.04 *
H x L (mm)	110 x 130	95 x 110	60 x 70	70
G (mm)	2,5	2,5	2,5	
W (kg)	0,160	0,100	0,040	0,240



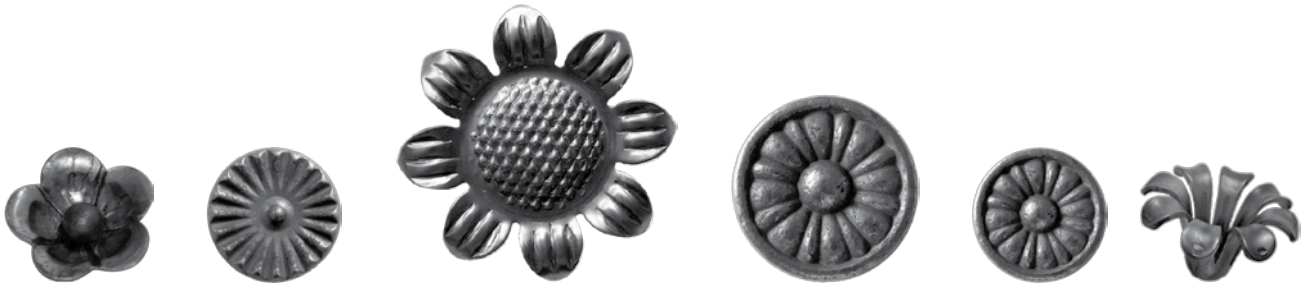
NR ART	14.319.01	14.319.02	14.319.03	14.319.04	14.319.05
H x L (mm)	190 x 200	155 x 163	125 x 132	95 x 100	35 x 125
G (mm)	2	2	2	2	2
W (kg)	0,280	0,180	0,120	0,060	0,040



NR ART	14.442	14.450	14.451	14.466.01 *	14.466.02 *	14.501.01	14.501.02
H x L (mm)	ϕ 74	ϕ 85	ϕ 60	92	119	160 x 85	160 x 85
G (mm)	6	2,5	2,5			2	2
W (kg)	0,23	0,150	0,080	0,100	0,160	0,120	0,120



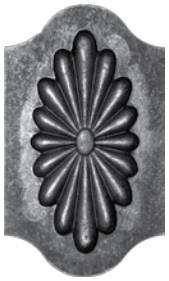
NR ART	14.503.01 *	14.503.02 *	14.505	14.506	14.510.01 *	14.510.02 *	14.511.01 *	14.511.02 *
H x L (mm)	90 x 60	90 x 60	155 x 65	100 x 72	125 x 50	125 x 50	107 x 62	107 x 62
G (mm)	4	4	4	2	2,5	2,5	2,5	2,5
W (kg)	0,070	0,070	0,220	0,080	0,050	0,050	0,040	0,040



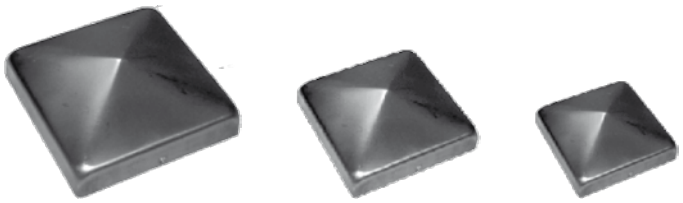
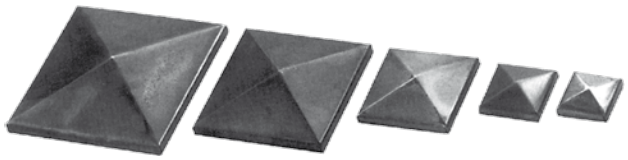
NR ART	14.550	14.552	14.556	14.563.01	14.563.02	14.565 *
H x L (mm)	ϕ 50	ϕ 52	ϕ 135	ϕ 64	ϕ 46	ϕ 52 x 33
G (mm)	2	2,5	2	6	5	2,5
W (kg)	0,040	0,050	0,170	0,200	0,160	0,040







NR ART	14.567 *	14.710.01	14.710.02	14.711.01	14.711.02
H x L (mm)	⌀ 122	260 x 180	165 x 165	200 x 100	245 x 145
G (mm)	4	2	2	2	2
W (kg)	0,320	0,300	0,160	0,220	0,470

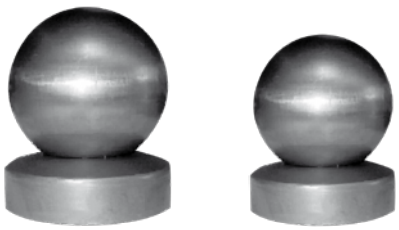



NR ART	□ (mm)	H (mm)	W (kg)
15.020	□ 20 x 20	20	0,020
15.025	□ 25 x 25	20	0,025
15.030	□ 30 x 30	20	0,030
15.040	□ 40 x 40	20	0,040
15.050	□ 50 x 50	20	0,043
15.060	□ 60 x 60	20	0,061
15.070	□ 70 x 70	20	0,076
15.080	□ 80 x 80	20	0,096
15.090	□ 90 x 90	20	0,104
15.100	□ 100 x 100	20	0,110
15.120	□ 120 x 120	20	0,134

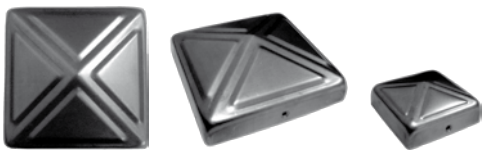
NR ART	□ (mm)	H (mm)	W (kg)
15.053	□ 40 x 40	5	0,045
15.054	□ 50 x 50	5	0,065
15.055	□ 60 x 60	5	0,080
15.056	□ 80 x 80	5	0,135
15.057	□ 100 x 100	5	0,195
15.058	□ 120 x 120	5	0,260



NR ART	□ (mm)	ø KULI (mm)	W (kg)
15.040.40	□ 40 x 40	ø 40	0,083
15.040.60	□ 40 x 40	ø 60	0,152
15.050.50	□ 50 x 50	ø 50	0,120
15.060.50	□ 60 x 60	ø 50	0,120
15.060.60	□ 60 x 60	ø 60	0,175
15.060.80	□ 60 x 60	ø 80	0,280
15.070.60	□ 70 x 70	ø 60	0,195
15.070.70	□ 70 x 70	ø 70	0,210
15.080.60	□ 80 x 80	ø 60	0,220
15.080.80	□ 80 x 80	ø 80	0,320
15.090.90	□ 90 x 90	ø 90	0,395
15.100.60	□ 100 x 100	ø 60	0,245
15.100.80	□ 100 x 100	ø 80	0,360
15.100.100	□ 100 x 100	ø 100	0,465
15.120.100	□ 120 x 120	ø 100	0,520
15.120.120	□ 120 x 120	ø 120	0,855



NR ART	ø (mm)	ø KULI (mm)	W (kg)
15.142.40	ø 42 (1 1/4")	ø 40	0,123
15.148.50	ø 48 (1 1/2")	ø 50	0,145
15.148.60	ø 48 (1 1/2")	ø 60	0,152
15.160.60	ø 60 (2")	ø 60	0,185
15.160.80	ø 60 (2")	ø 80	0,185
15.172.70	ø 72	ø 70	0,285
15.172.80 *	ø 72	ø 80	0,303
15.177.80	ø 77 (2 1/2")	ø 80	0,320
15.180.60 *	ø 80	ø 60	0,235
15.180.80	ø 80	ø 80	0,245
15.190.90	ø 90	ø 90	0,389
15.200.80 *	ø 100	ø 80	0,365
15.200.100	ø 100	ø 100	0,410



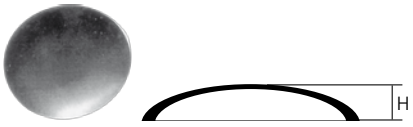
NR ART	□ (mm)	H (mm)	W (kg)
15.040.01	□ 40 x 40	20	0,040
15.050.01	□ 50 x 50	20	0,043
15.060.01	□ 60 x 60	20	0,061
15.080.01	□ 80 x 80	20	0,096
15.100.01	□ 100 x 100	20	0,110
15.120.01	□ 120 x 120	20	0,134



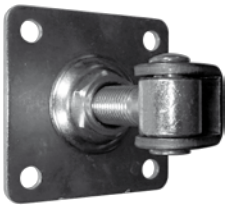
NR ART	□ (mm)	H (mm)	W (kg)
15.050.30	□ 50 x 30	20	0,035
15.060.30 *	□ 60 x 30	20	0,040
15.060.40	□ 60 x 40	20	0,045
15.080.40	□ 80 x 40	20	0,051



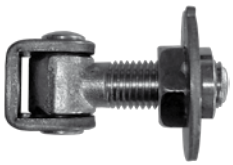
NR ART	ø (mm)	W (kg)
15.142	ø 42 (1 1/4")	0,035
15.148	ø 48 (1 1/2")	0,045
15.160	ø 60 (2")	0,068
15.172	ø 72	0,095
15.177	ø 77 (2 1/2")	0,101
15.180	ø 80	0,112
15.190	ø 90	0,122
15.200	ø 100	0,176
15.220	ø 120	0,180



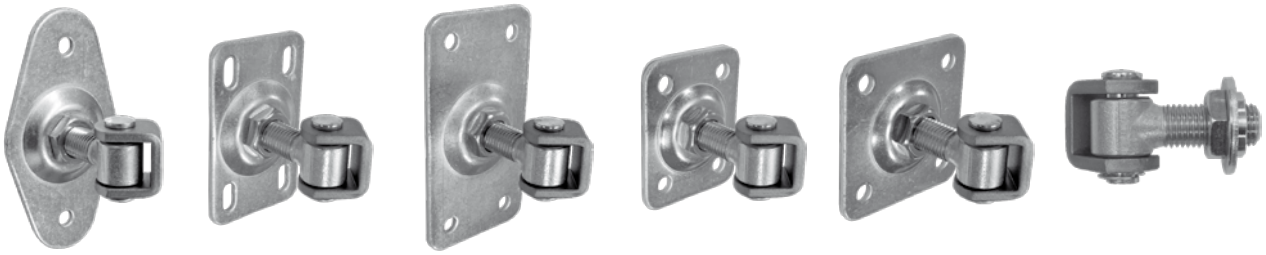
NR ART	ø (mm)	G (mm)	H (mm)	W (kg)
15.291.41	ø 41	1,5	10	0,018
15.291.50	ø 50	1,5	12	0,025
15.291.63	ø 63	1,5	12	0,040
15.291.68	ø 68	1,5	14	0,050
15.291.90	ø 90	1,5	14	0,125
15.291.108	ø 108	1,5	14	0,140



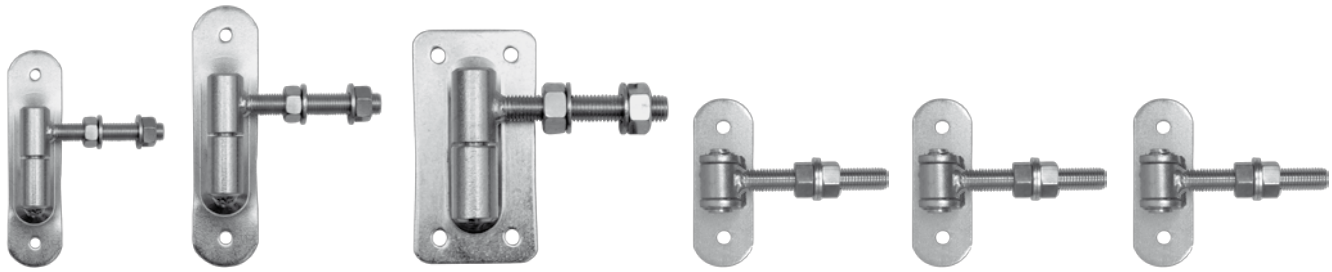
NR ART	H x L (mm)	GWINT M/ L (mm)	W (kg)
15.240.16	80 x 80	M 16 x 50	0,482
15.240.20	100 x 100	M 20 x 50	0,684



NR ART	L (mm)	M (mm)	W (kg)
15.242.16	50	M 16	0,350
15.242.20	50	M 20	0,468



NR ART	15.250.01	15.250.02	15.250.03		15.250.07	15.250.08
H x L (mm)	160 x 85	120 x 75	160 x 85		100 x 100	65
M/ ϕ (mm)	M 20	M 20	M 20		M 20	M 20
W (kg)	0,720	0,680	0,840		0,710	0,450
NR ART			**15.250.04**	**15.250.05**	**15.250.06**	**15.250.09**
H x L (mm)			120 x 75	75 x 55	75 x 75	50
M/ ϕ (mm)			M 16	M 16	M 16	M 16
W (kg)			0,540	0,340	0,420	0,280



NR ART	15.250.12	15.250.16	15.250.18	15.253.16	15.253.18	15.253.20
H x L (mm)	150 x 40	200 x 50	160 x 85	115 x 40 x 130	140 x 50 x 130	140 x 50 x 130
M/ ϕ (mm)	M 12	M 16	M 18	M 16	M 18	M 20
ϕ (mm)	ϕ 24	ϕ 27	ϕ 30			
W (kg)	0,580	0,960	1,250	0,600	0,910	0,960



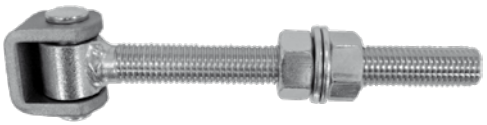
NR ART	H x L (mm)	G (mm)	OTW (mm)	W (kg)
15.254.07	25 x 50	4	9 x 23	0,030
15.254.08	30 x 50	4	9 x 25	0,035
15.254.10	40 x 50	4	9 x 23	0,080



NR ART	H x L (mm)	G (mm)	OTW (mm)	W (kg)
15.254.16	40 x 75	8	M 16	0,140
15.254.18	60 x 90	8	M 18	0,270
15.254.20	60 x 90	8	M 20	0,260



NR ART	L (mm)	M (mm)	W (kg)
15.255.16	130	M 16	0,410
15.255.18	130	M 18	0,580
15.255.20	130	M 20	0,650



NR ART	L (mm)	M (mm)	W (kg)
15.256.16	160	M 16	0,460
15.256.18	180	M 18	0,660
15.256.20	180	M 20	0,760



NR ART	L (mm)	M (mm)	W (kg)
15.264.16	50	M 16	0,250
15.264.20	65	M 20	0,400



NR ART	L (mm)	M (mm)	W (kg)
15.277.16	ø 105 X 80	M 16	0,500



NR ART	ø (mm)	H (mm)	W (kg)
15.401	ø 27	145	0,500
15.402	ø 35	190	1,100



NR ART	ø (mm)	H (mm)	W (kg)
15.412	ø 12	60	0,050
15.416	ø 16	66	0,100
15.420	ø 20	70	0,160
15.424	ø 24	80	0,300
15.427	ø 27	90	0,420
15.430	ø 30	100	0,520
15.435	ø 35	120	0,880
15.440	ø 40	120	1,140



NR ART	ø (mm)	H (mm)	W (kg)
15.420.01	ø 20	70	0,160
15.424.01	ø 24	80	0,280
15.427.01	ø 27	90	0,400
15.430.01	ø 30	100	0,560
15.435.01	ø 35	120	0,880
15.440.01	ø 40	120	1,160



UCHWYT do koszulki 12 x 60				
NR ART	H x L (mm)	G (mm)	otw (mm)	W (kg)
15.258.10	25 x 130	4	11 x 23	0,080



UCHWYT Z PODKŁADKĄ do koszulki 12 x 60				
NR ART	H x L (mm)	G (mm)	otw (mm)	W (kg)
15.259.10	25 x 130	4	11 x 23	0,080



NR ART	⌀ (mm)	L (mm)	▯ (mm)	W (kg)
15.441	⌀ 14	400	▯ 35 x 4	0,480
15.442	⌀ 14	600	▯ 35 x 4	0,700
15.443	⌀ 18	800	▯ 40 x 5	1,340
15.444	⌀ 18	1000	▯ 50 x 5	2,060
15.445	⌀ 20	1150	▯ 60 x 6	3,380



NR ART	15.451	15.451.01	15.451.05	15.451.06	15.451.07	15.451.08	15.451.09
H x L (mm)	400 x 650	250 x 290	400	150	200	220	270
▯ (mm)	▯ 50 x 5	▯ 35 x 4	▯ 50 x 5	▯ 35 x 5	▯ 40 x 6	▯ 50 x 6	▯ 60 x 8
⌀ (mm)	⌀ 27	⌀ 14	⌀ 27	⌀ 14	⌀ 18	⌀ 18	⌀ 20
W (kg)	2,750	0,510	1,680	0,240	0,440	0,580	1,040



NR ART	⌀ (mm)	L (mm)	▯ (mm)
15.448	⌀ 14	500	▯ 35 x 4
15.449	⌀ 18	700	▯ 50 x 5



NR ART	15.452	15.452.01	15.452.05	15.452.06
H x L (mm)	400 x 650	250 x 290	400	150
▯ (mm)	▯ 50 x 5	▯ 35 x 4	▯ 50 x 5	▯ 35 x 5
⌀ (mm)	⌀ 27	⌀ 14	⌀ 27	⌀ 14
W (kg)	2,750	0,520	1,600	0,200



NR ART	15.453.01	15.454.01	15.454.02	15.455.01	15.455.02	15.455.03	15.455.04
H x L (mm)	200 x 50	220	240	150	200	220	270
▯ (mm)	▯ 50 x 5			▯ 35 x 5	▯ 40 x 6	▯ 50 x 6	▯ 60 x 8
⌀ (mm)	⌀ 27	⌀ 27	⌀ 35	⌀ 14	⌀ 18	⌀ 18	⌀ 20
W (kg)	0,800	0,920	1,720	0,240	0,460	0,600	1,100



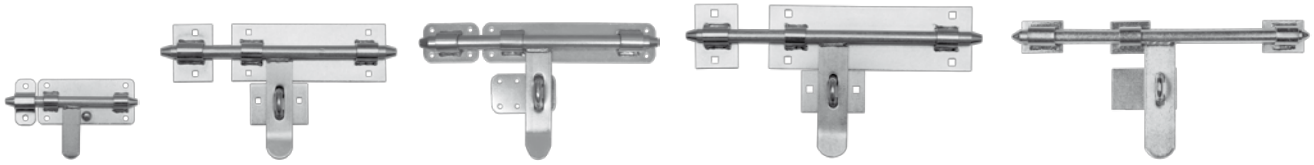
RYGLE	MALOWANE			NIEMALOWANE	
NR ART	15.462	15.463	15.464	15.463.01	15.464.01 WĄSKI
L (mm)	220	320	420	320	420
ø (mm)	ø 12	ø 14	ø 14	ø 14	ø 14
W (kg)	0,400	0,720	0,830	0,700	0,770



RYGLE	OCYNKOWANE							
NR ART	15.462.02 WĄSKI	15.462.04 SPRĘŻYNA	15.463.02	15.464.02 WĄSKI	15.464.04 SPRĘŻYNA	15.468	15.468.03	15.468.04 SPRĘŻYNA
L (mm)	220	220	320	420	420	800	800	800
ø (mm)	ø 12	ø 12	ø 14	ø 14	ø 14	ø 14	ø 14	ø 14
W (kg)	0,380	0,430	0,660	0,760	0,830	1,250	1,300	0,850



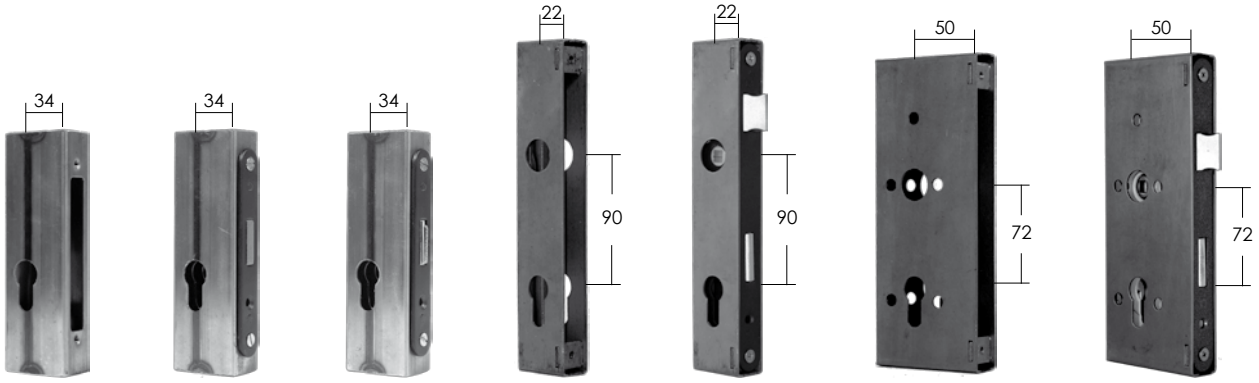
ZASUWA	MALOWANE			NIEMALOWANE
NR ART	15.472	15.473	15.478	15.473.01
L (mm)	270	340	210	340
ø (mm)	ø 16	ø 16	ø 14	ø 16
W (kg)	0,900	1,120	0,670	1,000



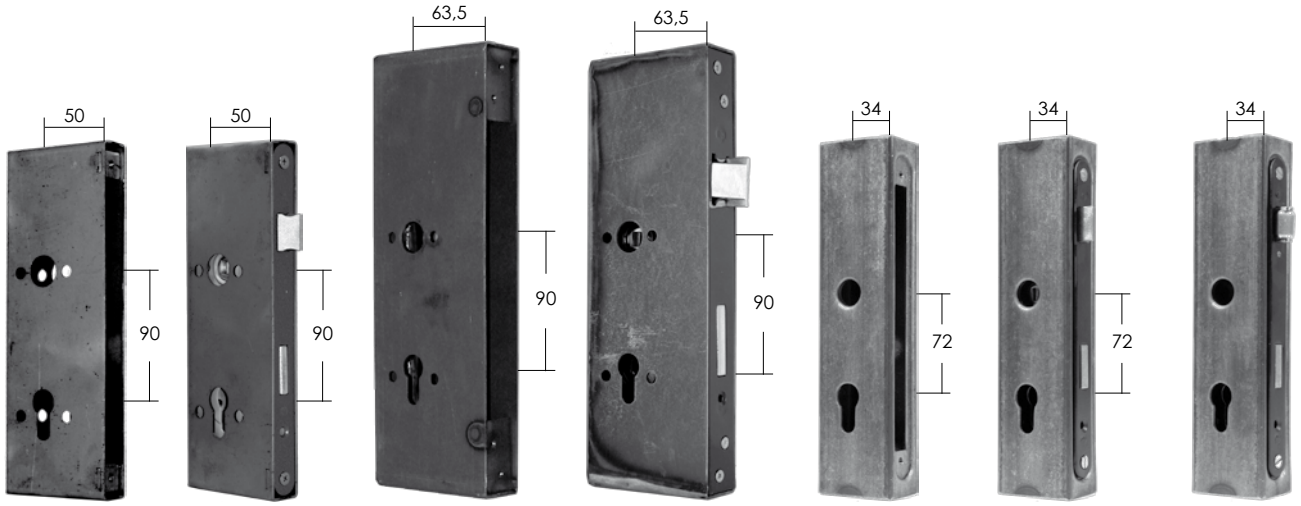
ZASUWA	OCYNKOWANE				
NR ART	15.471.02	15.472.02	15.472.03	15.473.02	15.473.03
L (mm)	150	270	270	340	340
ø (mm)	ø 12	ø 16	ø 16	ø 16	ø 16
W (kg)	0,300	0,900	0,900	1,120	0,930



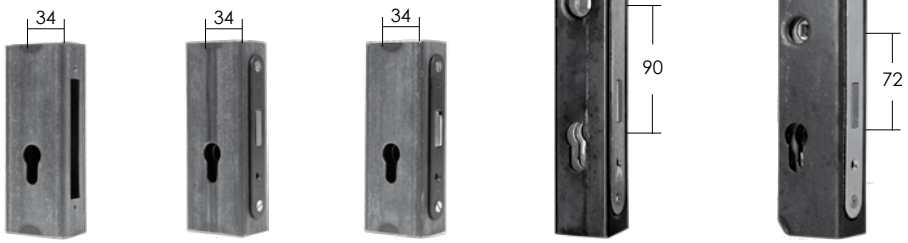
NR ART	15.529	15.530	15.531	15.532	15.533	15.533.01	15.533.02
	OCYNKOWANY		OCYNKOWANY	OCYNKOWANY		15.533 + 15.671	15.533 + 15.672
▭ (mm)	24 x 45			40	50 x 30	50 x 30	50 x 30
H (mm)	298	200	260	195	245	245	245
W (kg)	0,640	0,240	0,240	0,260	0,460	1,040	0,860



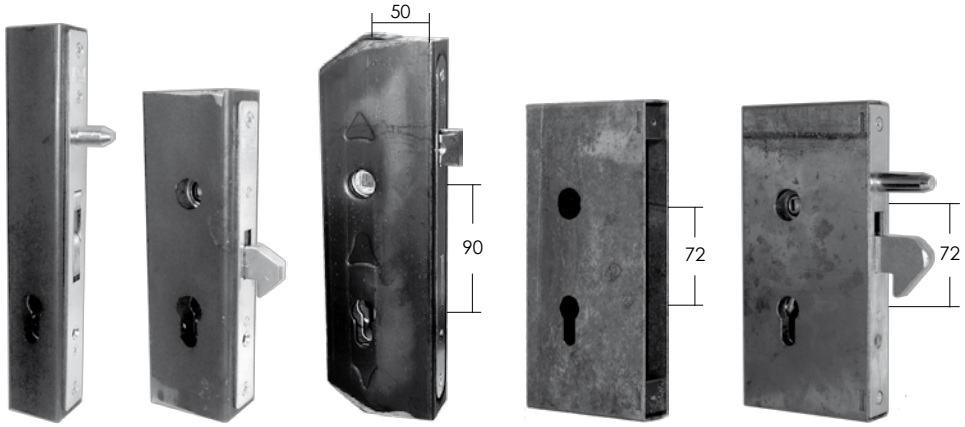
NR ART	15.534	15.534.01	15.534.02	15.634	15.634.01	15.638	15.638.01
		15.534 + 15.673	15.534 + 15.675		15.634 + 15.664		15.638 + 15.668
▭ (mm)	50 x 30	50 x 30	50 x 30	40 x 25	40 x 25	85 x 25	85 x 25
H (mm)	165	165	165	225	225	215	215
W (kg)	0,320	0,560	0,580	0,340	0,700	0,560	1,120



NR ART	15.639	15.639.01	15.640	15.640.01	15.641	15.641.01	15.641.02
		15.639 + 15.669		15.640 + 15.670		15.641 + 15.671	15.641 + 15.672-
▭ (mm)	85 x 25	85 x 25	105 x 35	105 x 35	60 x 40	60 x 40	60 x 40
H (mm)	240	240	305	305	245	245	245
W (kg)	0,720	1,260	1,160	2,120	0,740	1,240	1,180

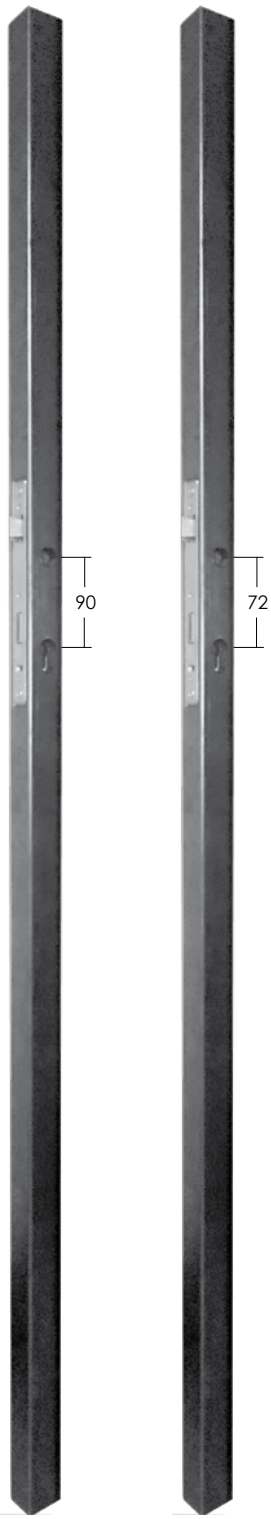


NR ART	15.642	15.642.01	15.642.02	15.644.01	15.645.01
		15.642 + 15.673	15.642 + 15.675		
▭ (mm)	60 x 40	60 x 40	60 x 40	40 x 40	50 x 40
H (mm)	165	165	165	245	245
W (kg)	0,520	0,780	0,780	0,860	1,120



NR ART	15.646.01	15.647.01	15.648.01	15.649	15.649.01
					15.649 + 15.679
▭ (mm)	40 x 40	40 x 60	80 x 40	105 x 30	105 x 30
H (mm)	258	200	260	215	215
W (kg)	1,040	0,980	1,420	0,760	1,720

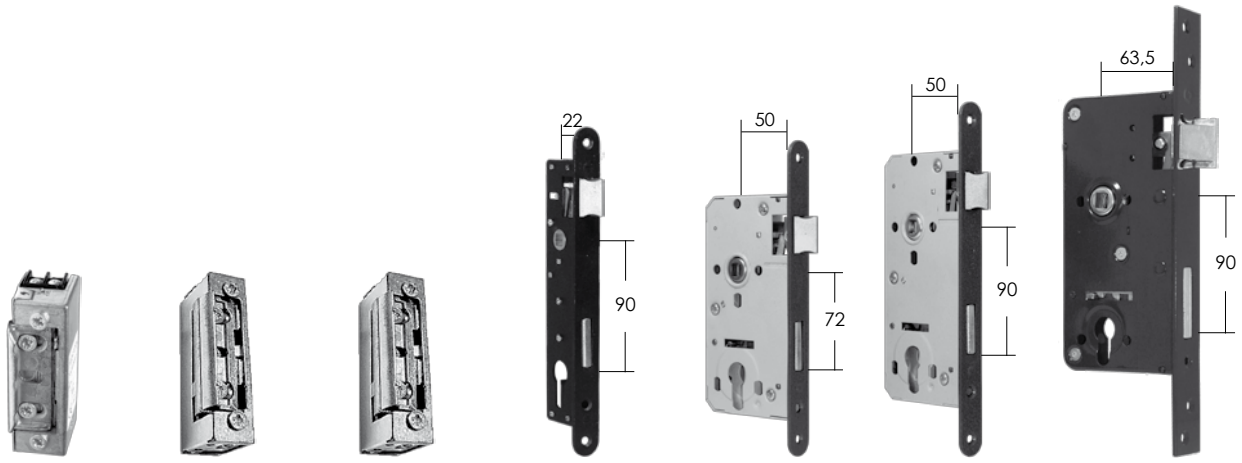




NR ART	15.650 KASETA ELEKTROZACZEPU	15.650.01 KASETA ELEKTROZACZEPU	15.650.02 KASETA Z ELEKTROZACZEPEM R4	15.650.04 KASETA ELEKTROZACZEPU	15.650.05 KASETA ELEKTROZACZEPU	15.644.15	15.646.15
	OCYNKOWANA			OCYNKOWANA	OCYNKOWANA		
▭ (mm)	40 x 40	45 x 35	45 x 35	45 x 35	40 x 40	40 x 40	60 x 40
H (mm)	280	255	255	255	352	1500	1500
W (kg)	0,940	1,000	1,350	1,000	0,940	2,980	4,000



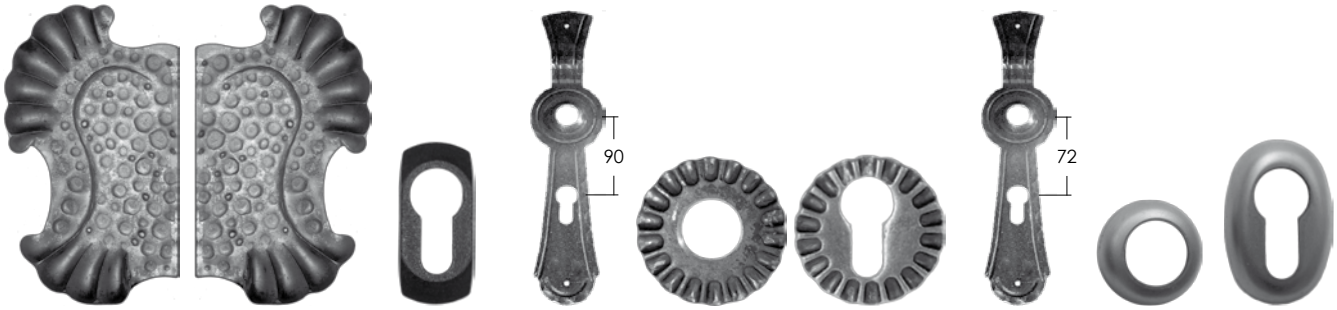
NR ART	**15.651** ELEKTROZACZEP **R3**	**15.651.01** ELEKTROZACZEP **R3** Z BLOKADĄ	**15.651.03** ELEKTROZACZEP **R3** Z BLOKADĄ Z PAMIĘCIĄ	**15.651.05** SZYLD UNIWERSALNY	**15.652** KASETA ELEKTROZACZEPU	**15.652.01** ELEKTROZACZEP SZEROKI	**15.652.04** SZYLD DŁUGI PROSTY	**15.652.05** SZYLD DŁUGI PROSTY	**15.652.06** SZYLD DŁUGI WCIĘTY
	U=10 ± 2V	U=10 ± 2V	U=10 ± 2V	OCYNKOWANY			OCYNKOWANY	OCYNKOWANY	OCYNKOWANY
▭/ L (mm)	20 x 28,5	20 x 28,5	20 x 28,5		34 x 90	27 x 55	29,5	25,5	25,5
H (mm)	90	90	90	148 x 25,5	102	77	250	250	250
W (kg)	0,200	0,200	0,200	0,070	0,340	0,240	0,125	0,100	0,090



NR ART	**15.654** ELEKTROZACZEP **R4**	**15.655** ELEKTROZACZEP **R5**	**15.655.01** ELEKTROZACZEP **R5** Z BLOKADĄ	**15.664** ZAPADKOWO-ZASUWKOWY 90/22	**15.668** ZAPADKOWO-ZASUWKOWY 72/50	**15.669** ZAPADKOWO-ZASUWKOWY 90/50	**15.670** ZAMEK BRAMOWY
	U=10 ± 2V	U=10 ± 2V	U=10 ± 2V				
▭/ L (mm)	21 x 29	16,5 x 29	16,5 x 29				
H (mm)	68	67	67	220	210	235	300
W (kg)	0,160	0,130	0,130	0,360	0,540	0,600	1,000



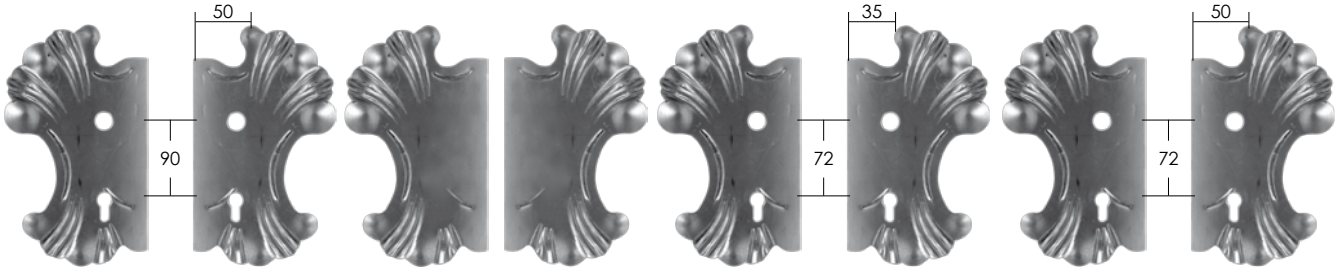
NR ART	**15.671** ZAPADKOWO-ZASUWKOWY 72/34	**15.672** ROLKOWO-ZASUWKOWY	**15.673** ZASUWKOWY	**15.674** ZAMEK ROLKOWY	**15.675** ZAMEK HAKOWY	**15.677** ZAMEK HAKOWY H 40	**15.679** ZAMEK HAKOWY F 60
H (mm)	220	220	140	100	140	250	210
W (kg)	0,600	0,540	0,300	0,200	0,300	0,540	1,000



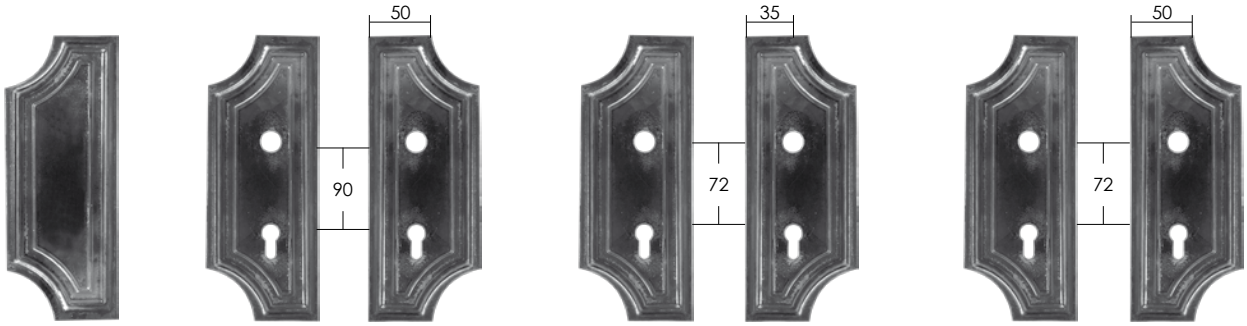
NR ART	15.042.01	15.043.01	15.332 TWORZYWO	15.364	15.364.01	15.364.02	15.364.04	15.460.01	15.460.02
ϕ / H (mm)	270 x 160	270 x 160	50 x 23	275 x 65	ϕ 50	ϕ 50	275 x 65	ϕ 35	55 x 35
G (mm)	3	3		3	4	4	3	2,5	2,5
W (kg)	0,800	0,800	0,010	0,260	0,050	0,050	0,260	0,030	0,050



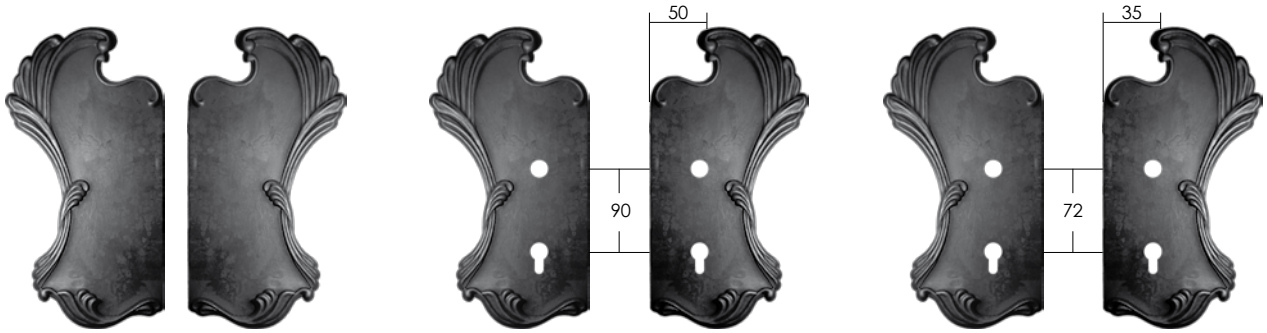
NR ART	15.361.01 *	15.361.02 *	15.361.03 *	15.361.04 *	15.361.05 *	15.361.06 *
H x L (mm)	330 x 180	330 x 180	330 x 180	330 x 180	330 x 180	330 x 180
G (mm)	4	4	4	4	4	4
W (kg)	1,360	1,360	1,360	1,360	1,360	1,360



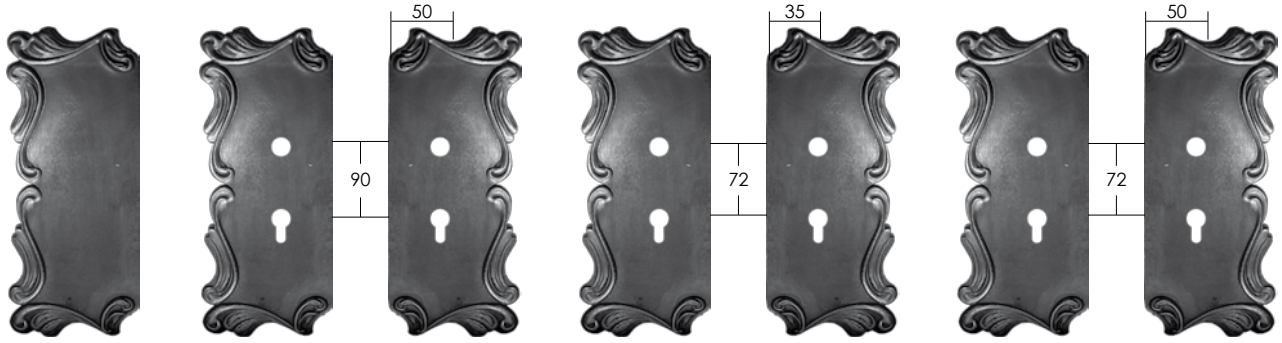
NR ART	15.362.01	15.362.02	15.362.03	15.362.04	15.362.05	15.362.06	15.362.07	15.362.08
H x L (mm)	270 x 165	270 x 165	270 x 165	270 x 165	270 x 165	270 x 165	270 x 165	270 x 165
G (mm)	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
W (kg)	0,600	0,600	0,600	0,600	0,600	0,600	0,600	0,600



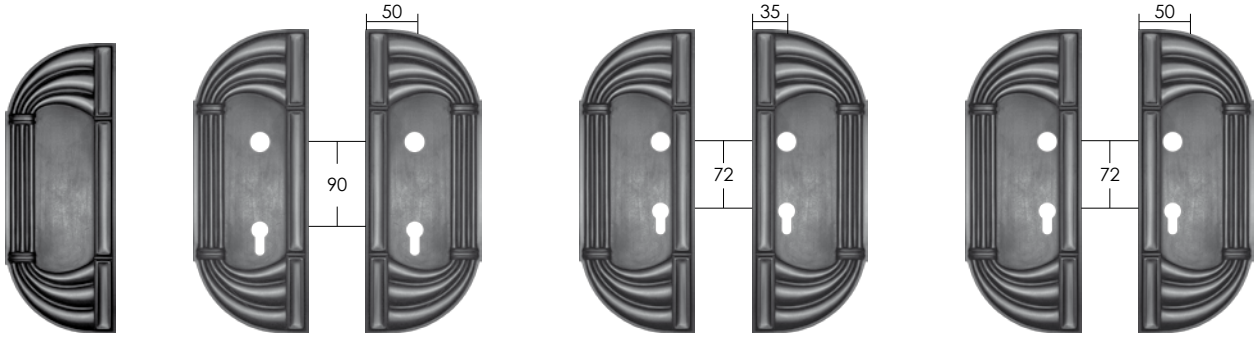
NR ART	15.363	15.363.01	15.363.02	15.363.03	15.363.04	15.363.05	15.363.06
H x L (mm)	280 x 110	280 x 110	280 x 110	280 x 110	280 x 110	280 x 110	280 x 110
G (mm)	3	3	3	3	3	3	3
W (kg)	0,660	0,600	0,600	0,600	0,600	0,600	0,600



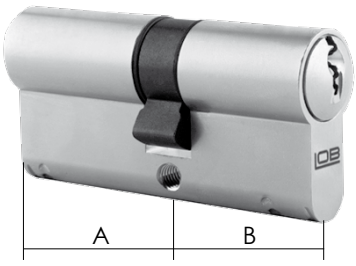
NR ART	15.365.11	15.365.12	15.365.13	15.365.14	15.365.15	15.365.16
ϕ / H (mm)	330 x 175	330 x 175	330 x 175	330 x 175	330 x 175	330 x 175
G (mm)	3	3	3	3	3	3
W (kg)	0,920	0,920	0,920	0,920	0,920	0,920



NR ART	15.366	15.366.01	15.366.02	15.366.03	15.366.04	15.366.05	15.366.06
H x L (mm)	315 x 135	315 x 135	315 x 135	315 x 135	315 x 135	315 x 135	315 x 135
G (mm)	3	3	3	3	3	3	3
W (kg)	0,900	0,900	0,900	0,900	0,900	0,900	0,900



NR ART	15.369	15.369.01	15.369.02	15.369.03	15.369.04	15.369.05	15.369.06
H x L (mm)	315 x 120	315 x 120	315 x 120	315 x 120	315 x 120	315 x 120	315 x 120
G (mm)	2	2	2	2	2	2	2
W (kg)	0,550	0,550	0,550	0,550	0,550	0,550	0,550





NR ART	A x B	KOLOR	W (kg)
15.1025.25 M	25 x 25	mosiądz	0,160
15.1030.30 M	30 x 30	mosiądz	0,200
15.1035.35 M	35 x 35	mosiądz	0,220
15.1125.25 N	25 x 25	nikiel/ satyna	0,160
15.1130.30 N	30 x 30	nikiel/ satyna	0,200
15.1135.35 N	35 x 35	nikiel/ satyna	0,220



NR ART	16.008	16.010.01	16.011	16.015
L (mm)	148	150	160	142
W (kg)	0,580	0,540	0,620	0,460



NR ART	16.306.01	16.306.02	16.306.03 *
H x L (mm)	50 x 155	50 x 125	120 x 135
W (kg)	0,900	0,800	0,850



NR ART	16.306.04	16.306.05	16.306.06	16.306.07
H x L (mm)	90	65	65	70
ϕ (mm)	ϕ 65	ϕ 65	ϕ 70	ϕ 68
W (kg)	0,480	0,420	0,420	0,440



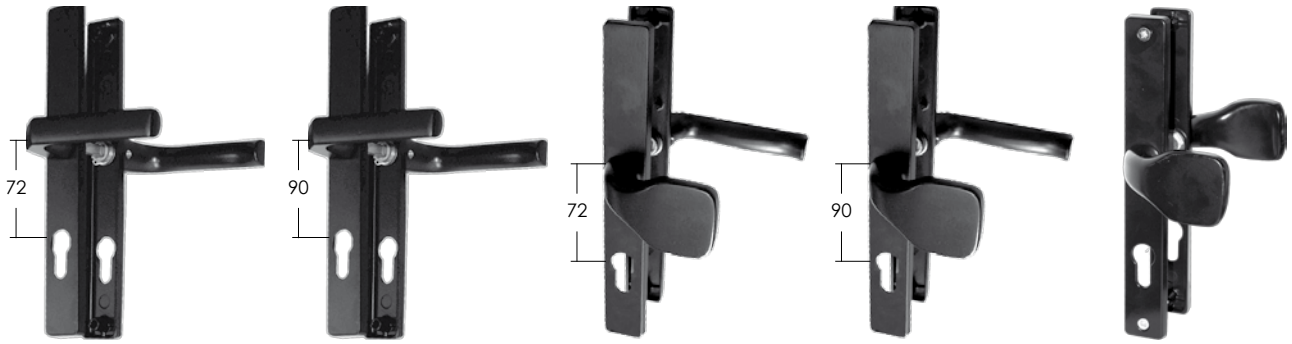
NR ART	16.306.08	16.306.11	16.306.12	16.306.13
H x L (mm)	50 x 130	50 x 170	50 x 130	50 x 110
W (kg)	0,660	0,900	0,740	0,760



NR ART	16.306.14	16.306.15	16.306.18 *	16.306.19
H x L (mm)	50 x 135	50 x 130	40 x 110	45 x 85
ϕ (mm)			ϕ 68	ϕ 68
W (kg)	0,750	0,550	0,420	0,280

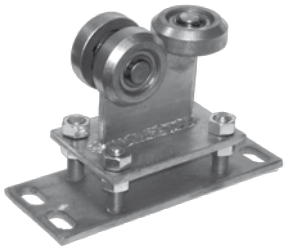


NR ART	16.320	16.321	16.322	16.324
H x L (mm)	125	93 x 65	93 x 65	125
⌀ (mm)				
W (kg)	0,500	0,250	0,500	0,500



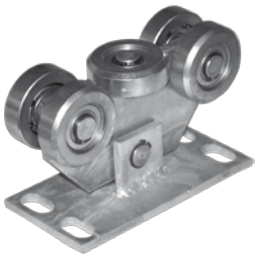
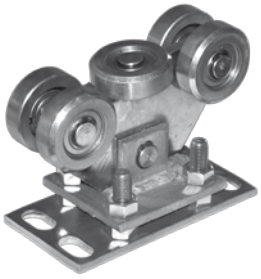
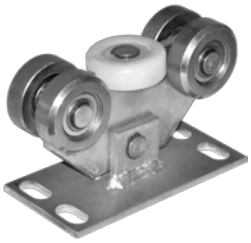
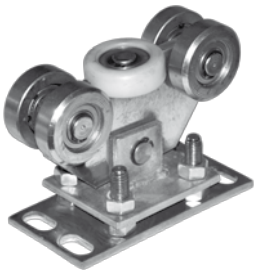
NR ART	16.325	16.326	16.328	16.329	16.330
H x L (mm)	30 x 240	30 x 240	30 x 240	30 x 240	30 x 240
A (mm)	72	90	72	90	
W (kg)	0,600	0,600	0,600	0,600	0,440



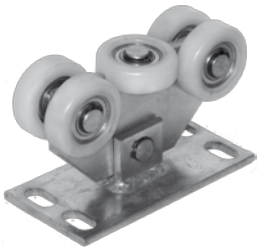
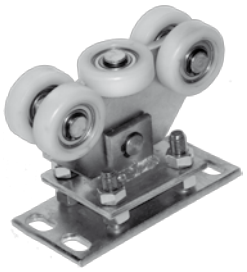
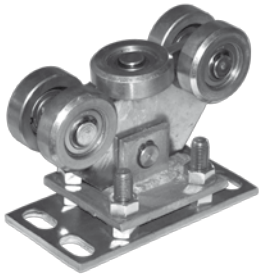
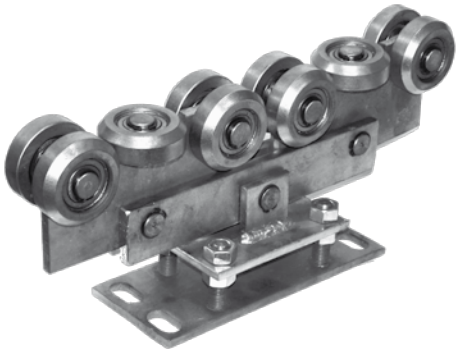




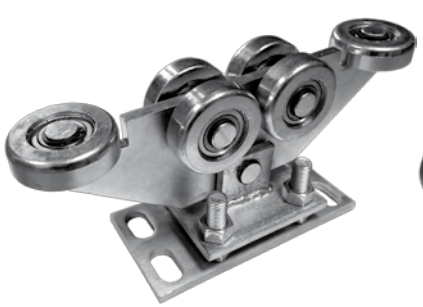
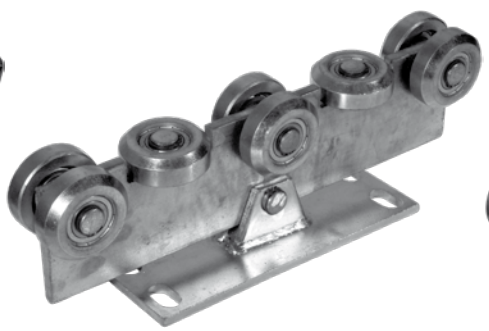
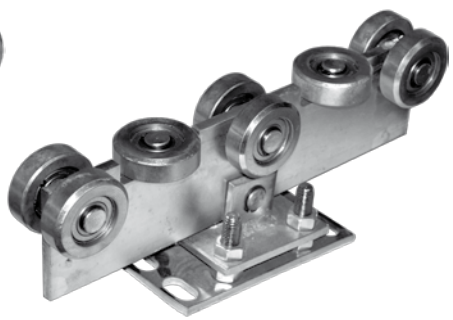
NR ART	15.503.02 WÓZEK JEZDNY 50	15.703 WÓZEK JEZDNY 70	15.703.01 WÓZEK JEZDNY 70	15.703.02 WÓZEK JEZDNY 70	15.703.06 WÓZEK JEZDNY 70
W (kg)	0,600	2,500	4,320	1,520	1,250
NR ART	**15.603.02** WÓZEK JEZDNY 60	**15.803** WÓZEK JEZDNY 80	**15.803.01** WÓZEK JEZDNY 80	**15.803.02** WÓZEK JEZDNY 80	**15.803.06** WÓZEK JEZDNY 80
W (kg)	0,700	2,940	4,920	1,820	1,400

NR ART	15.705 WÓZEK JEZDNY 70	15.705.01 WÓZEK JEZDNY 70		
W (kg)	4,640	6,040		
NR ART	**15.805** WÓZEK JEZDNY 80	**15.805.01** WÓZEK JEZDNY 80	**15.805.02** WÓZEK JEZDNY 80	**15.805.03** WÓZEK JEZDNY 80
W (kg)	5,260	6,680	5,000	6,300

NR ART	15.705.06 WÓZEK JEZDNY 70	15.705.07 WÓZEK JEZDNY 70	15.705.08 WÓZEK JEZDNY 70 PODWÓJNA REGU;ACJA	15.805.04 WÓZEK JEZDNY 80
W (kg)	3,100	4,260	6,040	12,500
NR ART	**15.805.06** WÓZEK JEZDNY 80	**15.805.07** WÓZEK JEZDNY 80	**15.805.08** WÓZEK JEZDNY 80 PODWÓJNA REGU;ACJA	
W (kg)	3,700	4,860	6,680	

NR ART	15.806.01	15.808 WÓZEK JEZDNY 80	15.808.01 WÓZEK JEZDNY 80
W (kg)	6,320	8,220	9,560



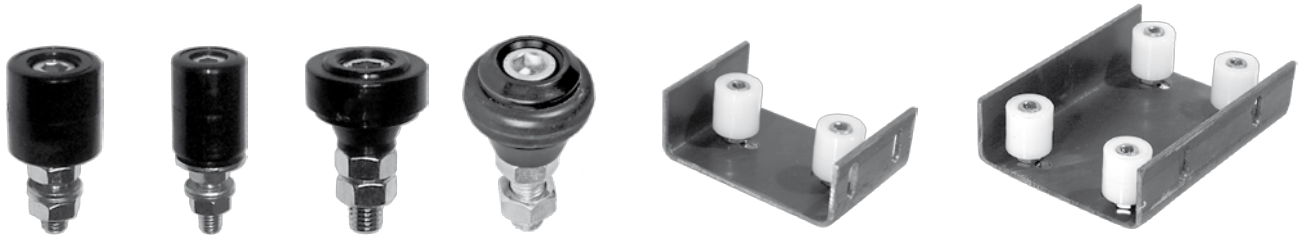
NR ART	15.820 ROLKA STALOWA	15.820.01 ROLKA	15.821 ROLKA STALOWA	15.821.01 ROLKA	15.825 ROLKA NAJAZDOWA	15.826 UCHWYT NAJAZDU
⌀/H x L (mm)	⌀ 60	⌀ 60	⌀ 68	⌀ 68	140	160 x 120
W (kg)	0,260	0,120	0,380	0,160	0,820	0,820



NR ART	15.830 ODBÓJ	15.830.01 ODBÓJ	15.830.02 ODBÓJ	15.830.04 OGRANICZNIK	15.830.05 OGRANICZNIK	15.830.06 OGRANICZNIK
H x L (mm)	35 x 155	55 x 155	80 x 155	44 x 120 x 100	48 x 160 x 130	90 x 90
⌀ (mm)						⌀ 90
W (kg)	1,940	2,380	3,200	0,300	0,700	0,350



NR ART	15.828 ODBOJNIK GUMOWY	15.829 ODBOJNIK GUMOWY	15.831 ROLKA "T"	15.831.01 ROLKA "T"	15.832 ROLKA "V"	15.832.01 ROLKA "V"	15.836 ROLKA "U"
H x L (mm)	18 x ⌀ 24	38 x 60	⌀ 70 x 20	⌀ 88 x 25	⌀ 70 x 23	⌀ 88 x 25	⌀ 88 x 25
⌀ (mm)	otw. ⌀ 6/ ⌀ 11	otw. ⌀ 6/ ⌀ 11					
W (kg)	0,010	0,050	0,420	0,800	0,420	0,800	0,800



NR ART	15.833 ROLKA	15.833.01 ROLKA	15.833.02 ROLKA	15.833.05 ROLKA	15.834 PROWADZENIE GÓRNE	15.835 PROWADZENIE GÓRNE
⌀ x H (mm)	⌀ 33	⌀ 25	⌀ 42	⌀ 40	50 x 90	50 x 190
W (kg)	0,080	0,070	0,100	0,120	0,780	1,580



NR ART	15.837 UCHWYT BRAMY 40	15.838 UCHWYT BRAMY 60	15.839 UCHWYT BRAMY 80	15.840 ROLKA	15.840.02 ROLKA	15.841
⌀/ H (mm)	150 x 65	160 x 65	167 x 65	⌀ 33 X 150	⌀ 42 X 150	100 x 75 x 40
W (kg)	0,530	0,530	0,530	0,310	0,340	0,240

ZESTAWY DO BRAM PRZESUWNYCH



BX EURO do bramy o masie do 300 kg
- siłownik **BX-243** - centrala sterująca **ZN2** - karta częstotliwości - pilot



BX PLUS do bramy o masie do 400 kg
- siłownik **BX-74** - karta częstotliwości - fotokomórka **DIR 10** - pilot



BX STRONG do bramy o masie do 800 kg
- siłownik **BX-78** - karta częstotliwości - fotokomórka **DIR 10** - pilot

CAME

ZESTAWY DO BRAM SKRZYDŁOWYCH



AMICO EURO o dł. skrzydła do 2200 mm
- siłowniki **A18230** - karta częstotliwości - centrala sterująca **ZF 1N** - fotokomórka **DIR 10** - pilot



FAST PLUS o dł. skrzydła do 2300 mm
- siłowniki **F 7000** i **F 7001** - karta częstotliwości - fotokomórka **DIR 10** - pilot



KRONO STANDARD o dł. skrzydła do 3000 mm	**KRONO PLUS** o dł. skrzydła do 3000 mm
- siłowniki **KR 300D** i **KR 300S** - karta częstotliwości - płyta sterująca **ZF 1N** - fotokomórka **DIR 10** - pilot	- siłowniki **KR 310D** i **KR 310S** - karta częstotliwości - centrala sterująca **ZA 3N** - fotokomórka **DIR 10** - pilot Siłowniki zawierają wbudowane wyłączniki krańcowe



ZESTAWY DO BRAM GARAŻOWYCH	
HOME HG 600 - do bram garażowych o powierzchni do 10 m²	**HOME HG 1000 -** do bram garażowych o powierzchni do 14m²
- siłowniki **HG 600** siła ciągu 600 N - szyna łańcuchowa 3300 mm - pilot czterokanałowy **SP4** na kod zmienny	- siłowniki **HG 1000** siła ciągu 1000 N - szyna łańcuchowa 3300 mm - pilot czterokanałowy **SP4** na kod zmienny



SZYNA Z ŁAŃCUCHEM DO BRAM GARAŻOWYCH		
NR ART	**uchylnych do wys.**	**segmentowych do wys.**
V0679	2400 mm	2250 mm
V0682	2900 mm	2750 mm
V0683	3400 mm	3250 mm













TOP 432 EV	**TOP 434 EV**	**SP 2**	**SP 4**	**TOP A433**	**KIARO N led**
KOD STAŁY	KOD STAŁY	KOD ZMIENNY	KOD ZMIENNY	433 MHz	230V/2W

ZESTAWY DO BRAM PRZESUWNYCH





BENINCA®
AUTOMATYKA DO BRAM

B/KBULL.5M-PM - wyłączniki mechaniczne do bramy o masie do 500 kg
- **BULL5M** siłownik z wbudowaną centralą i odbiornikiem - **PUPILLA** para fotokomórek - **TO.GO2VA** pilot 2 kanałowy 433,92 MHz

B/KBULL.8M-PM - wyłączniki mechaniczne do bramy o masie do 800 kg
- **BULL5M** siłownik z wbudowaną centralą i odbiornikiem - **PUPILLA** para fotokomórek - **TO.GO2VA** pilot 2 kanałowy 433,92 MHz

B/KBULL.5M.S-PM - wyłączniki magnetyczne do bramy o masie do 500 kg
- **BULL5M** siłownik z wbudowaną centralą i odbiornikiem - **PUPILLA** para fotokomórek - **TO.GO2VA** pilot 2 kanałowy 433,92 MHz

B/KBULL.8M.S-PM - wyłączniki magnetyczne do bramy o masie do 800 kg
- **BULL5M** siłownik z wbudowaną centralą i odbiornikiem - **PUPILLA** para fotokomórek - **TO.GO2VA** pilot 2 kanałowy 433,92 MHz

ZESTAWY DO BRAM SKRZYDŁOWYCH





B/KBILL30M-PM - wąski słupek o dł. skrzydła do **3,0 m**
- **BILL30M** siłownik 230 Vac - **HEADY** centrala 230 Vac z odbiornikiem radiowym - **PUPILLA** para fotokomórek - **TO.GO2VA** pilot 2 kanałowy 433,92 MHz

B/KBILL40M-PM - szeroki słupek o dł. skrzydła do **4,0 m**
- **BILL40M** siłownik 230 Vac - **HEADY** centrala 230 Vac z odbiornikiem radiowym - **PUPILLA** para fotokomórek - **TO.GO2VA** pilot 2 kanałowy 433,92 MHz







B/LAMPI. LED
LAMPA SYGNALIZACYJNA 230Vac ledowa z wbudowaną anteną

B/TO GO2VA
PILOT 2-KANAŁOWY 433,92 MHz Kod zmienny oraz ARC kod

B/TO GO4VA
PILOT 4-KANAŁOWY 433,92 MHz Kod zmienny oraz ARC kod







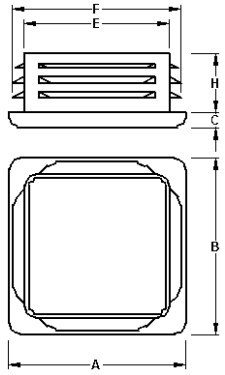






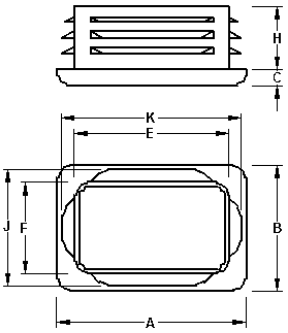
NR ART	15.850	15.850.01	C8	C10	CGZF	CGZF-40
⌀ / H (mm)	⌀ 80	⌀ 68	1000	1000	1000 (3 x 330)	400
G/ ▯ (mm)	18 trybów	15 trybów	▯8	▯10	20 x 40	20 x 46
W (kg)	0,900	0,900	1,640	2,060	3 x 0,550	0,660





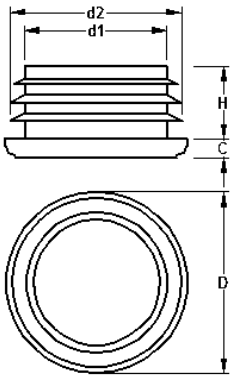
NR ART	□ A x B (mm)	Gr. pr (mm)	H (mm)	E (mm)	F (mm)
17.015	□ 15 x 15	1,0 - 2,0	11,5	10,0	14,5
17.016	□ 16 x 16	1,0 - 2,0	11,0	10,8	14,8
17.020	□ 20 x 20	1,0 - 2,5	14,0	12,9	18,6
17.025	□ 25 x 25	1,0 - 2,5	15,0	18,0	23,2
17.030	□ 30 x 30	1,0 - 2,5	15,0	23,0	28,2
17.035	□ 35 x 35	1,0 - 2,5	15,0	27,4	33,7
17.040	□ 40 x 40	1,2 - 3,0	18,0	33,1	38,4
17.050	□ 50 x 50	1,5 - 3,0	18,0	43,7	48,0
17.060	□ 60 x 60	1,5 - 3,0	18,0	53,0	58,3
17.070	□ 70 x 70	1,5 - 4,0	18,5	60,8	67,3
17.080	□ 80 x 80	1,5 - 5,0	22,0	66,8	77,4
17.100	□ 100 x 100	2,0 - 5,0	23,0	86,0	96,0
17.120	□ 120 x 120	3,0 - 6,5	25,0	109,0	116,0





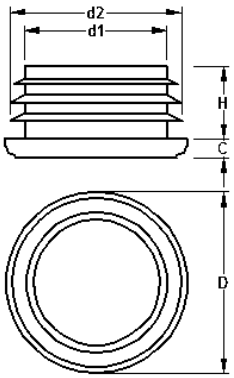
NR ART	▯ A x B (mm)	Gr. pr (mm)	H (mm)	▯ E x F(mm)	▯ K x J (mm)
17.210.20 *	▯ 20 x 10	1,2 - 1,5	12,0	▯ 15,8 x 5,6	▯ 17,7 x 7,6
17.215.25 *	▯ 25 x 15	1,0 - 2,0	12,9	▯ 19,9 x 10,3	▯ 23,9 x 13,9
17.218.30	▯ 18 x 30	1,0 - 3,0	14,0	▯ 22,6 x 11,0	▯ 28,5 x 16,5
17.220.30	▯ 30 x 20	1,0 - 3,0	14,0	▯ 22,5 x 13,0	▯ 28,5 x 18,5
17.220.40	▯ 40 x 20	1,0 - 3,0	14,0	▯ 32,6 x 13,0	▯ 38,5 x 18,5
17.220.50	▯ 50 x 20	1,0 - 3,0	15,0	▯ 42,8 x 13,0	▯ 49,0 x 18,7
17.220.60	▯ 60 x 20	1,5 - 3,0	14,0	▯ 54,0 x 14,0	▯ 58,0 x 18,2
17.220.80	▯ 80 x 20	1,5 - 3,0	17,5	▯ 74,3 x 12,9	▯ 78,4 x 18,0
17.220.100	▯ 100 x 20				
17.225.40	▯ 40 x 25	1,5 - 3,0	13,0	▯ 35,2 x 19,8	▯ 38,0 x 23,4
17.225.50	▯ 50 x 25	1,5 - 3,0	16,0	▯ 40,5 x 15,8	▯ 47,2 x 22,8
17.227.40	▯ 40 x 27	1,5 - 3,0	14,0	▯ 32,6 x 19,8	▯ 38,2 x 25,4
17.230.40	▯ 40 x 30	1,5 - 3,0	14,0	▯ 32,4 x 21,7	▯ 37,3 x 28,6
17.230.50	▯ 50 x 30	1,5 - 3,0	16,0	▯ 42,5 x 22,8	▯ 47,5 x 27,6
17.230.60	▯ 60 x 30	1,5 - 3,0	16,0	▯ 52,0 x 22,5	▯ 58,0 x 27,8
17.240.60	▯ 60 x 40	1,5 - 3,0	17,0	▯ 50,5 x 30,8	▯ 58,0 x 38,2
17.240.80	▯ 80 x 40	1,5 - 3,0	17,0	▯ 68,0 x 28,0	▯ 77,2 x 37,6
17.250.100	▯ 100 x 50	2,0 - 4,0	20,0	▯ 90,0 x 39,3	▯ 98,5 x 46,3
17.260.80	▯ 80 x 60	1,5 - 4,0	20,0	▯ 66,0 x 46,0	▯ 77,1 x 57,5



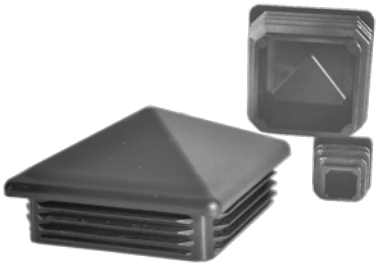


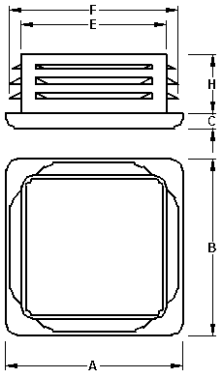
NR ART	⌀ D (mm)	Gr. pr (mm)	H (mm)	⌀ d1 (mm)	⌀ d2 (mm)
17.300	⌀ 21,3 (1/2")	2,5 - 3,5	20,0	⌀ 12,4	⌀ 16,8
17.301	⌀ 26,9 (3/4")	2,0 - 3,2	20,0	⌀ 19,4	⌀ 23,4
17.302	⌀ 33,7 (1")	2,5 - 3,2	20,0	⌀ 24,8	⌀ 28,5
17.303	⌀ 42,4 (1 1/4")	2,5 - 3,6	15,0	⌀ 33,7	⌀ 38,4
17.304	⌀ 48,3 (1 1/2")	2,0 - 3,6	17,5	⌀ 37,8	⌀ 45,5
17.305	⌀ 60,3 (2")	2,0 - 3,6	18,0	⌀ 49,0	⌀ 57,6
17.306	⌀ 76,1 (2 1/2")	3,0 - 4,0	22,0	⌀ 63,8	⌀ 71,3
17.307	⌀ 90,2 (3")	3,0 - 5,0	21,0	⌀ 76,6	⌀ 86,5
17.316	⌀ 16	1,0 - 1,5	12,7	⌀ 10,3	⌀ 15,0
17.318	⌀ 18	1,0 - 1,5	14,3	⌀ 12,4	⌀ 17,0
17.320	⌀ 20	1,0 - 1,5	14,9	⌀ 14,5	⌀ 19,4
17.325	⌀ 25	1,0 - 2,0	15,0	⌀ 18,7	⌀ 23,7





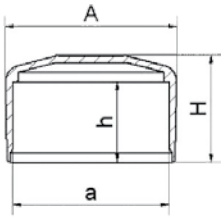
NR ART	⌀ D (mm)	Gr. pr (mm)	H (mm)	⌀ d1 (mm)	⌀ d2 (mm)
17.330	⌀ 30	1,0 - 2,0	15,0	⌀ 25,0	⌀ 29,0
17.332	⌀ 32	1,0 - 2,0	15,0	⌀ 25,3	⌀ 30,0
17.335	⌀ 35	1,0 - 2,0	15,2	⌀ 25,8	⌀ 32,8
17.340	⌀ 40	1,5 - 2,5	15,0	⌀ 32,0	⌀ 38,8
17.350	⌀ 50	1,2 - 2,5	18,0	⌀ 42,5	⌀ 48,5
17.360	⌀ 60	1,5 - 3,0	19,5	⌀ 50,9	⌀ 58,4
17.370	⌀ 70	1,5 - 4,0	22,1	⌀ 59,0	⌀ 67,2
17.376	⌀ 76	1,5 - 2,5	21,8	⌀ 64,0	⌀ 74,0
17.376.01	⌀ 76	3,0 - 4,0	22,0	⌀ 63,7	⌀ 71,3





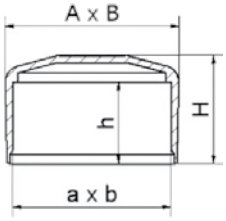
NR ART	□ A x B (mm)	Gr. pr (mm)	H (mm)	E (mm)	F (mm)
17.615	□ 15 x 15	1,0 - 2,0	12,0	10,0	13,4
17.620	□ 20 x 20	1,0 - 2,5	14,0	12,9	18,6
17.625	□ 25 x 25	1,0 - 2,5	14,0	20,0	24,2
17.630	□ 30 x 30	1,0 - 2,5	15,0	23,0	28,2
17.640	□ 40 x 40	1,5 - 3,0	17,0	31,0	37,4
17.650	□ 50 x 50	1,5 - 3,0	19,7	40,4	47,0
17.660	□ 60 x 60	1,5 - 3,0	18,0	52,7	58,4
17.680	□ 80 x 80	2,0 - 5,0	22,0	67,2	77,4
17.700	□ 100 x 100	2,0 - 5,0	23,0	86,3	96,5





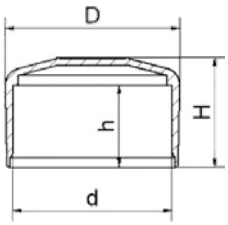
NR ART	a (mm)	A (mm)	H (mm)	h (mm)
17.1015	□ 15	18,7	21,0	16,0
17.1018	□ 18	21,6	21,9	17,0
17.1020	□ 20	24,0	24,0	19,0
17.1030	□ 30	33,7	29,3	23,8
17.1040	□ 40	45,5	32,0	21,0
17.1050	□ 50	54,0	27,0	21,0
17.1060	□ 60	65,0	31,0	21,0
17.1070	□ 70	77,0	35,0	25,0
17.1080	□ 80	87,0	36,0	26,0
17.1100	□ 100	103,0	31,0	21,0





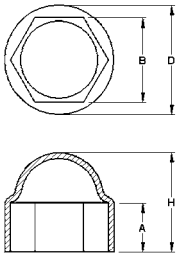
NR ART	▯ a x b (mm)	▯ A x B (mm)	H (mm)	h (mm)
17.1218.30	▯ 18 x 30	▯ 20,5 x 30,1	24,0	19,0
17.1220.30	▯ 20 x 30	▯ 23,5 x 33,5	24,0	19,0
17.1240.60	▯ 40 x 60	▯ 45 x 65	30,5	21,0
17.1240.80	▯ 40 x 80	▯ 45 x 85	31,2	21,2
17.1260.80	▯ 60 x 80	▯ 65 x 85	33,0	21,0





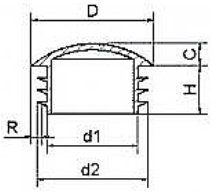
NR ART	⌀ d (mm)	D (mm)	H (mm)	h (mm)
17.1303	⌀ 42,4 (1 1/4")	46,8	33,5	24,3
17.1304	⌀ 48,3 (1 1/2")	53,0	33,0	24,0
17.1305	⌀ 59,8 (2")	65,0	40,0	27,0
17.1306	⌀ 75,8 (2 1/2")	79,5	40,0	27,0
17.1338	⌀ 37,8	42,5	29,8	22,5
17.1342	⌀ 41,7	46,6	34,4	24,4
17.1344	⌀ 44,3	48,8	34,5	24,7
17.1351	⌀ 50,6	53,3	33,0	24,0





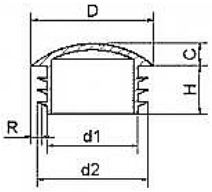
NR ART	ø D (mm)	ŚRUBA/KLUCZ	H (mm)	B (mm)	A (mm)
17.385	ø 10,6	M 5 - 8	9,5	7,9	6,0
17.386	ø 13,2	M 6 - 10	13,4	9,9	7,3
17.388	ø 17,6	M 8 - 13	16,5	12,9	8,7
17.390	ø 21,6	M 10 - 17	20,3	16,9	10,1
17.392	ø 23,6	M 12 - 19	21,9	18,9	11,4
17.394	ø 27,4	M 14 - 22	24,2	21,9	12,5
17.396	ø 29,6	M 16 - 24	27,2	23,9	14,0
17.398	ø 29,6	M 18 - 27	30,3	26,5	17,4





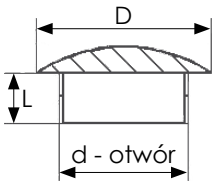
NR ART	ø D (mm)	R (mm)	C (mm)	H (mm)	ø d1 (mm)	ø d2 (mm)
17.420	ø 20	1 - 2	5	11,8	ø 15,5	ø 19
17.425	ø 25	1 - 2	5	12,0	ø 18,8	ø 24
17.428	ø 28	1 - 2	5	14,0	ø 21,2	ø 27
17.432	ø 32	1 - 2	5	14,6	ø 26,3	ø 30,2



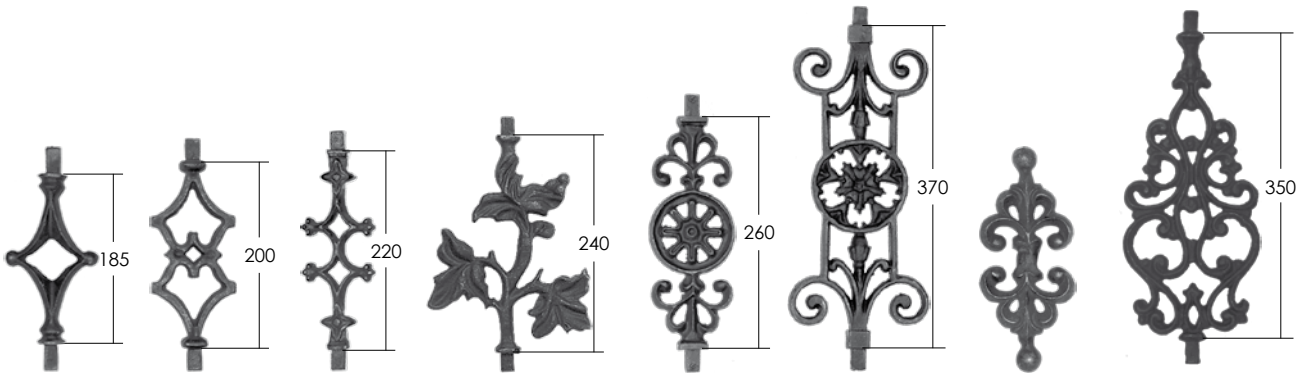


NR ART	ø D (mm)	R (mm)	C (mm)	H (mm)	ø d1 (mm)	ø d2 (mm)
17.520 *	ø 20	1,5 - 2,5	10,0	15,5	ø 12,0	ø 18,3
17.542	ø 42,4 (1 1/4")	1,5 - 2,5	21,2	25,0	ø 36,5	ø 32,3
17.548	ø 48,3 (1 1/2")	1,5 - 2,5	24,1	25,0	ø 38,2	ø 42,4
17.550 *	ø 49,8	1,5 - 2,5	25,5	29,5	ø 39,0	ø 47,2
17.560	ø 60,3	1,5 - 2,5	30,1	25,0	ø 49,3	ø 53,6





NR ART	ø d (mm)	D (mm)	L (mm)
17.804	ø 4,0	ø 8,0	3,0
17.805	ø 5,0	ø 8,0	5,0
17.806	ø 6,0	ø 10,0	5,4
17.808	ø 8,0	ø 13,0	6,0
17.810	ø 10,0	ø 13,0	6,3
17.812	ø 12,0	ø 15,0	8,6
17.813	ø 12,0	ø 16,0	6,9
17.815	ø 15,0	ø 18,0	7,0
17.817	ø 17,0	ø 20,0	10,0
17.820	ø 20,0	ø 24,0	10,0



NR ART	17.701	17.703	17.704	17.705	17.706	17.707	17.708	17.709
H x L (mm)	240 x 100	245 x 90	260 x 82	280 x 180	310 x 95	400 x 155	250 x 100	390 x 145
□ (mm)	□ 15 x 15	□ 15 x 15	□ 15 x 15	□ 15 x 15	□ 15 x 15	□ 15 x 15		□ 15 x 15
W (kg)	0,760	0,480	0,660	0,480	0,300	0,200	0,770	2,020

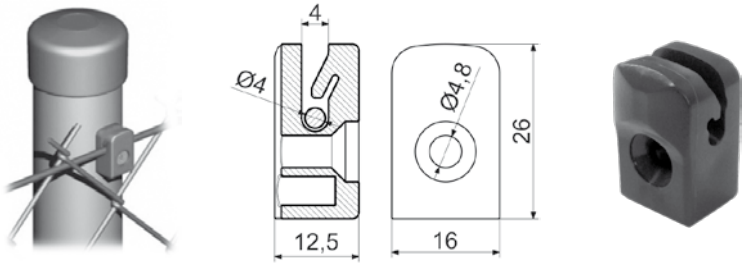


NR ART	17.713	17.714	17.715	17.727	17.728
H x L (mm)	270 x 235	160 x 150	250 x 140	250 x 340	100 x 490
□ (mm)	□ 20	□ 20	□ 20		□ 14 x 14
W (kg)	2,560	0,900	1,500	1,840	2,600



NR ART	17.731	17.733	17.740	17.743
H x L (mm)	630 x 520	780 x 580	750 x 550	690 x 585
W (kg)	15,000	17,200	15,300	15,200

* elementy z żeliwa (malowane) nie nadaja się do cynkowania ogniowego



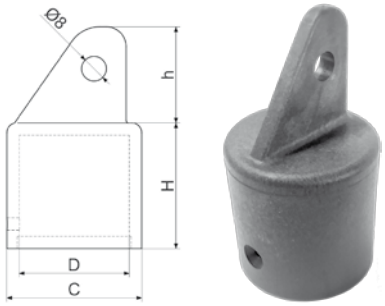
18.003 PRZELOTKA UNIWERSALNA
mocowana na wkręt samogwintujący M4, 8 x 25



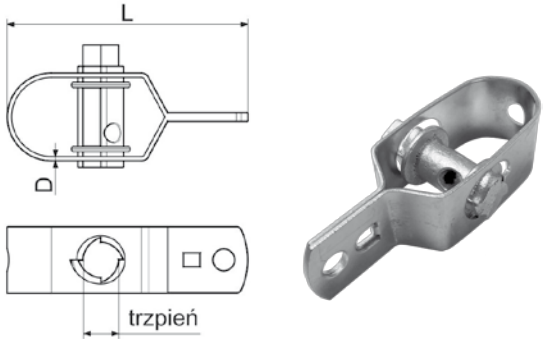
18.131 UCHWYT PODPORY SŁUPKA POJEDYNCZY
(OCYNK GALWANICZNY)
mocowana na wkręt samogwintujący 6, 3 x 25



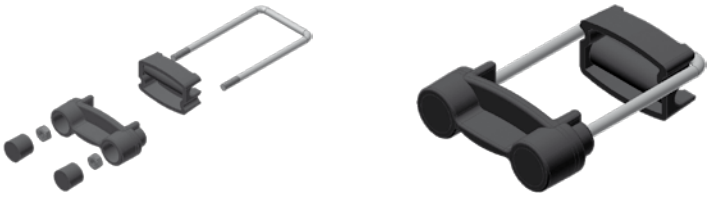
18.132 UCHWYT PODPORY SŁUPKA PODWÓJNY
(OCYNK GALWANICZNY)
mocowana na wkręt samogwintujący 2 x 6, 3 x 25



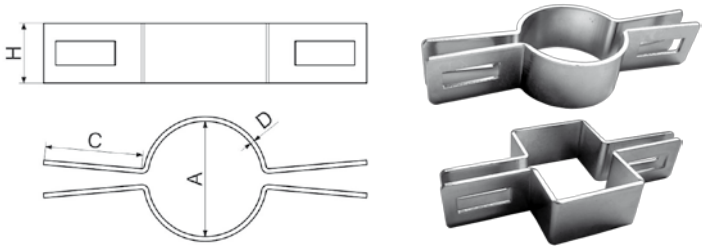
NASADKA SŁUPKA PODPOROWEGO				
NR ART	D (mm)	C (mm)	H (mm)	h (mm)
18.142	ø 42,4	54,8	54,8	54,8
18.148	ø 48,3	60,9	60,9	60,9



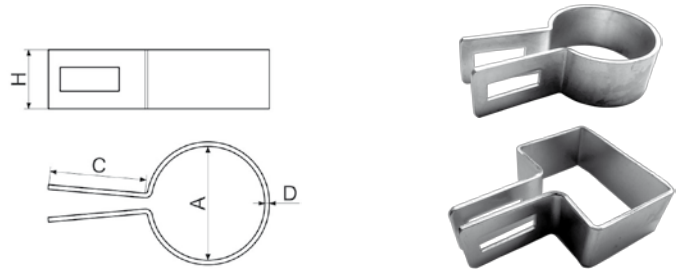
NACIĄG DO DRUTU (OCYNK GALWANICZNY)			
NR ART	TRZPIEŃ (mm)	D (mm)	L (mm)
18.150	ø14	1,5	90



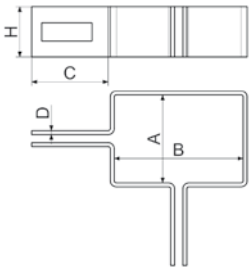
ZŁĄCZE ZACISKOWE DO MOCOWANIA PANELI	
NR ART	SŁUPEK (mm)
18.200 *	40 x 40
18.202 *	40 x 60



OBEJMA SŁUPKA - POŚREDNIA (OCYNK GALWANICZNY)				
NR ART	A (mm)	D (mm)	H (mm)	C (mm)
18.220	ø 42	2,0	25,0	41,0
18.222	ø 48	2,0	25,0	41,0
18.224	ø 60	2,0	25,0	41,0
18.260	40 x 60	2,0	25,0	41,0

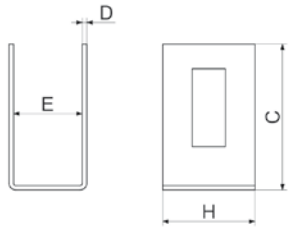


OBEJMA SŁUPKA - KOŃCOWA (OCYNK GALWANICZNY)				
NR ART	A (mm)	D (mm)	H (mm)	C (mm)
18.230	ø 42	2,0	25,0	41,0
18.232	ø 48	2,0	25,0	41,0
18.234	ø 60	2,0	25,0	41,0
18.270	40 x 60	2,0	25,0	41,0



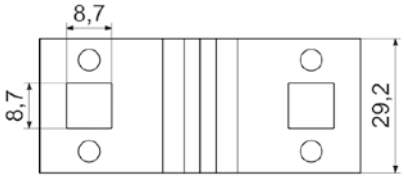


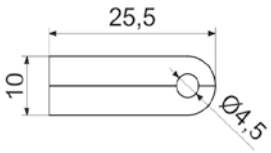
OBEJMA SŁUPKA - NAROŻNIKOWA (OCYNK GALWANICZNY)				
NR ART	A x B (mm)	D (mm)	H (mm)	C (mm)
18.280	40 x 60	2	25,0	41,0





UCHWYT UNIWERSALNY (OCYNK GALWANICZNY)				
NR ART	D (mm)	H (mm)	C (mm)	E (mm)
18.325	2	25,0	41,0	14,0







DYSTANS OBEJMY	
NR ART	DRUT (mm)
18.334	4
18.335	5











NR ART	**18.347** ŚRUBA ZAMKOWA M8 X 20 z podkładką	**18.350** KLIPS POMOCNICZY	**18.351** ZAPINKA	**18.354** ZAPINKA 1/2	**18.355** PODKŁADKA BLASZKOWA



TSG TULEJA STALOWA Z GWINTEM				
ART. NR	⌀ otw (mm)	ŚRUBA	L (mm)	pak (szt)
TSG 6	⌀ 10	M 6	50	5
TSG 8	⌀ 14	M 8	80	5
TSG 10	⌀ 16	M 10	80	5
TSG 12	⌀ 18	M 12	80	5



TSM TULEJA SIATKOWA METALOWA do kotwienia w pustych przestrzeniach				
ART. NR	⌀ otw (mm)	ŚRUBA	L (mm)	pak (szt)
TSM 12	⌀ 12	max M 8	1 000	5
TSM 16	⌀ 16	max M 12	1 000	5
TSM 22	⌀ 22	max M 16	1 000	5
TSM 26	⌀ 26	max M 22	1 000	5



TSN TULEJA SIATKOWA NYLONOWA do kotwienia w pustych przestrzeniach				
ART. NR	⌀ otw (mm)	ŚRUBA	L (mm)	pak (szt)
TSN 12.50	⌀ 12	max M 8	50	4
TSN 12.80	⌀ 12	max M 8	80	4
TSN 16.85	⌀ 16	max M 12	85	4
TSN 16.135	⌀ 16	max M 12	135	4
TSN 20.85	⌀ 20	max M 16	85	4

KOTWY CHEMICZNE - żywica UNIWERSALNA PESF
poliestrowa bez styrenu do betonu i pustych przestrzeni









ART. NR	**TKC 300** KOTWA CHEMICZNA	**TKC 410** KOTWA CHEMICZNA	**TM 101** MIESZACZ	**TM 25** PRZEDŁUŻKA	**TW 41** WYCISKACZ KOTWY CHEMICZNEJ 410	**TWP 41** WYCISKACZ KOTWY CHEMICZNEJ 380/410 PROFESJONALNY
H x L (mm)			220	250	315 x 200	340 x 200
poj. (ml) / W (kg)	300/ 0,560	410 / 0,800	0,020	0,010	1,000	1,200











NR ART	**16.081** farba GRAFIT	**16.081.01** farba GRAFIT	**16.082** farba CZARNY MAT	**16.082.01** farba CZARNY MAT	**16.084** farba BRĄZ	**16.084.01** farba BRĄZ
Poj. (L)	0,8 L	3 L	0,8 L	3 L	0,8 L	3 L
W (kg)	1,200	4,200	1,200	4,200	1,200	4,200








NR ART	**16.090** patyna ZŁOTO	**16.091** patyna MIEDŹ	**16.092** patyna SREBRO	**16.093** patyna CIEMNA ZIELEŃ	**16.094** patyna TURKUS
Poj. (L)	0,22 L	0,22 L	0,22 L	0,22 L	0,22 L
W (kg)	0,280	0,280	0,280	0,280	0,280







NR ART	**16.095** patyna BŁĘKIT	**16.096** patyna ŻÓŁTA	**16.097** patyna CZERWIEŃ	**16.098** patyna BIAŁA	**16.099** patyna ZIELEŃ
Poj. (L)	0,22 L	0,22 L	0,22 L	0,22 L	0,22 L
W (kg)	0,280	0,280	0,280	0,280	0,280

stalowe elementy kute

stalowe elementy kute

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