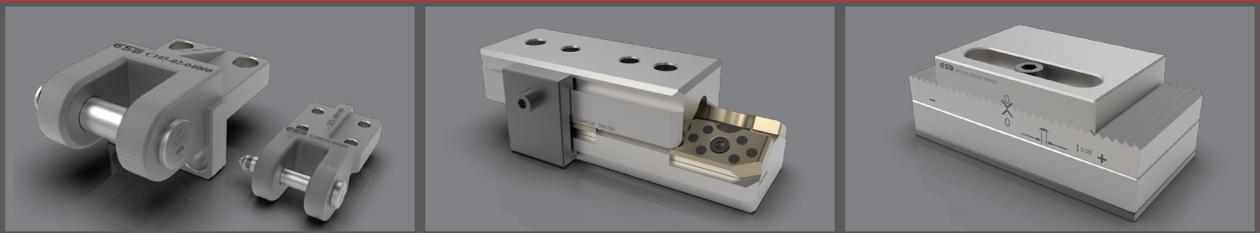




STANDART KALIP ELEMENLARI
STANDARD DIE COMPONENTS
STANDARD WERKZEUGTEILE





Bir şirketten fazlası

GSB OILLESS firmasını 25 yıl önce İstanbul'da metal şekillendirme kalıpları için üstün hizmet ve yüksek kalite standart kalıp elemanları tedarik etmek amacıyla kurduk. Kuruluşumuzun ardından 5 yıl içerisinde önemli bir pazar payını elde etmeyi başardık ve firmamızı Türkiye lideri olarak konumlandırdık. Daha sonra misyonumuzu ticaretten üretime taşıdık ve yolumuza bu sektörde ana global oyuncularından biri olma hedefiyle devam ettik. 25 yıl sonra bugün, 3 farklı kıtada, 15'in üzerinde ülkede, lider otomotiv gruplarının neredeyse hepsine üretim ve ihracat yapıyoruz. Kesin olarak kabul ediyoruz ki büyümemiz, çalışanlarımızın azmi ve bu şirkete gösterdikleri bağlılığın sonucudur. Gelirimizin önemli bir kısmı işyerimizi daha güvenli ve iyi hale getirmek için harcanmaktadır.

More than a Company

GSB OILLESS was established 25 years ago in Istanbul as a trading company with a core and ambitious mission in order to provide outstanding services and premium equipments destined to sheet metal forming dies. In 5 years we managed to acquire a significant market share and asserted ourselves as the leaders in Turkey. We recalibrated our aim from trading to producing, and pursued our mission to become a main global player. Today, 25 years after, we manufacture and export to almost every major automotive group in 3 different continents and 15+ countries.

We firmly acknowledge that our growth is the definitive proof of the passion that our employees have dedicated to this company. As such, significant share of our earnings are used to make our workplace safer and more welcoming.



Mehr als nur eine Firma

GSB OILLESS wurde vor 25 Jahren in Istanbul als Handelsunternehmen mit einer zentralen und ehrgeizigen mission gegründet um herausragende Dienstleistungen und Premium Ausrüstungen für Stanz- und Umformtechnik bereitzustellen. Innerhalb von 5 Jahren war es uns gelungen, einen signifikanten Marktanteil zu erobern und positionierten uns als Marktführer in der Türkei. Als nächster Schritt war unsere Zielsetzung eine eigene Produktion für diesen Markt und peilten fortan eine globale Bekanntheit an. Heute, nach 25Jahren, produzieren und exportieren wir für fast alle bekannten automobilen Marken in 3 Kontinenten und in mehr als 15 Länder.

Wir führen unser Wachstum und unseren Erfolg darauf zurück, das unsere Mitarbeiter mit großer Leidenschaft und Hingabe für Ihre Firma arbeiten. Aus diesem Grund investieren wir auch einen erheblichen Anteil unserer Erlöse, um die Arbeitsplätze sicherer und komfortabler zu gestalten.





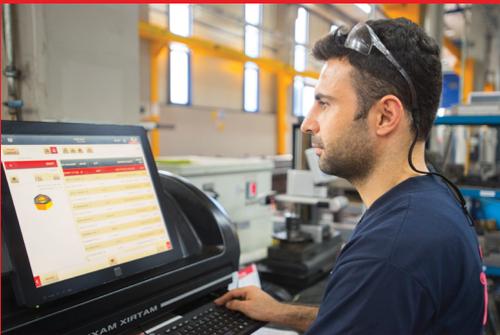
Duyarlılık ve Azmin Ürünü

Bu katalogta sizlere, altmıştan fazla çalışanımızın azimli ve titiz çalışmalarının ürünlerini sunmaktayız. Toplum sağlığına ve çevreye duyarlılığımız, sosyal sorumluluk anlayışımızla birleşince kalite yönetim sistemleri için ISO 9001 sertifikasını, çevre yönetim sistemleri için ISO 14001 sertifikasını ve mesleki sağlık ve güvenlik yönetimi sistemleri için de ISO 45001 sertifikasını almamıza olanak sağlamıştır. GSB OILLESS' de bizler, üretken süreçler ve teknolojinin yanı sıra insan kaynağına da yatırım yapmaktayız.



Driven By Precision and Ambition

In this catalog we present you the result of our ambition and of the hardwork of our 60+ employees. The pursuit of precision and social responsibility allowed us to obtain the ISO 9001 certification for quality management systems, the ISO 14001 certification for environment management systems, and the ISO 45001 certification for occupational health and safety management systems. At GSB OILLESS we invest in productive processes, technology, and particularly in our human capital.



Getrieben von Präzision und Ehrgeiz

In diesem Katalog präsentieren wir das Resultat von Ehrgeiz und harter Arbeit unserer mehr als 60 Mitarbeiter. Das Streben nach Präzision und sozialer Verantwortung führte zur Erlangung des ISO 9001 Zertifikats für Qualitäts Management Systeme, die ISO 14001 Zertifizierung für Umweltmanagement, sowie die Zertifizierung nach ISO 45001 für Gesundheit und Sicherheitsmanagement. Bei GSB OILLESS investieren wir in Produktionsoptimierung, Technologie und ganz besonders in unsere menschliche Ressourcen.

1

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LIFTING ELEMENTS
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FÜHRUNGSELEMENTE

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1

TAŞIMA ELEMANLARI
LIFTING ELEMENTS
TRAGELEMENTE



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 Material :
 C45E
 700 ÷ 800 N/mm²

UYARI!

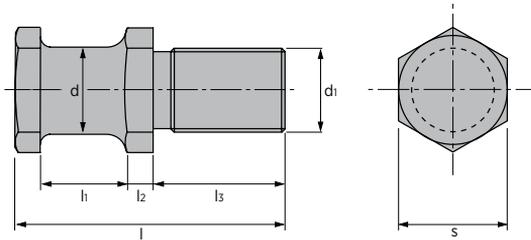
Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.
WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting pins.

Respect the max. load.
ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugs gewicht tragen müssen.

Maximale Nutzlast beachten.


CODE	Max. Load (kg)	Max. Die Weight (kg)	d ±0,1	d ₁	l ±1	l ₁	l ₂	l ₃ ±0,5	s
C101-02-016-016	250	500	16	M16	58	20	5,5	28	24
C101-02-020-020	500	1000	20	M20	68	22	6,5	34	30
C101-02-025-024	1000	2000	25	M24	78	25	8	38	36
C101-02-032-030	1500	3000	32	M30	95	32	10	45	41
C101-02-040-036	2500	5000	40	M36	118	40	12	56	50



Material :
C45E
700 ÷ 800 N/mm²


UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.

WARNING!

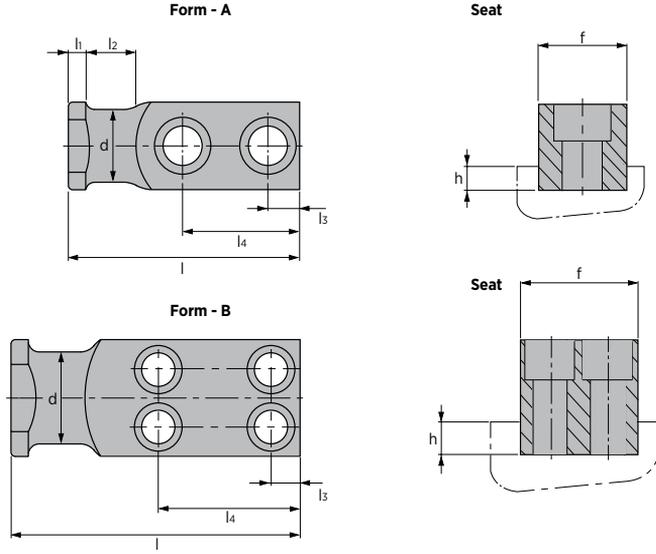
For safety reasons, the weight of the tool has to be supported by just two lifting brackets.

Respect the max. load.

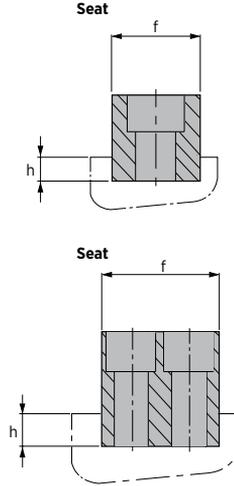
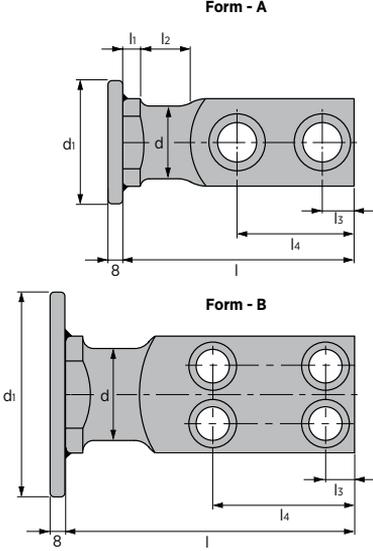
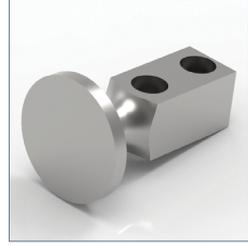
ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugsgewicht tragen müssen.

Maximale Nutzlast beachten.



CODE	Max. Load (kg)	Max. Die Weight (kg)	Form	d	l	l ₁	l ₂	l ₃	l ₄	f +1/+0,5	h	DIN EN ISO 4762 - Screw 8.8
C101-04-020-080	320	640	A	16	80	6	20	10	44	20	6	M8x30
C101-04-025-090	630	1260	A	20	90	8	25	10	47	25	8	M10x35
C101-04-035-100	1250	2500	A	25	100	8	30	12	50	35	10	M12x40
C101-04-040-120	2000	4000	A	32	120	10	32	16	62	40	10	M16x55
C101-04-050-140	3200	6400	A	40	140	10	40	18	72	50	12	M20x70
C101-04-060-160	5000	10000	A	50	160	12	45	22	81	60	14	M24x70
C101-04-080-200	8000	16000	B	63	200	12	50	20	98	80	16	M20x100
C101-04-100-250	12500	25000	B	80	250	15	65	25	125	100	18	M24x110
C101-04-120-300	20000	40000	B	100	300	15	80	30	155	120	20	M30x130


 Material :
 C45E
 700 ÷ 800 N/mm²

UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.
WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting brackets.

Respect the max. load.
ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugsgewicht tragen müssen.

Maximale Nutzlast beachten.

CODE	Max. Load (kg)	Max. Die Weight (kg)	Form	d	d ₁	l	h	l ₂	l ₃	l ₄	f +1/ +0,5	h	DIN EN ISO 4762 - Screw 8.8
C101-05-020-080	320	640	A	16	60	80	6	20	10	44	20	6	M8x30
C101-05-025-090	630	1260	A	20	70	90	8	25	10	47	25	8	M10x35
C101-05-035-100	1250	2500	A	25	70	100	8	30	12	50	35	10	M12x40
C101-05-040-120	2000	4000	A	32	110	120	10	32	16	62	40	10	M16x55
C101-05-050-140	3200	6400	A	40	110	140	10	40	18	72	50	12	M20x70
C101-05-060-160	5000	10000	A	50	150	160	12	45	22	81	60	14	M24x70
C101-05-080-200	8000	16000	B	63	150	200	12	50	20	98	80	16	M20x100
C101-05-100-250	12500	25000	B	80	150	250	15	65	25	125	100	18	M24x110
C101-05-120-300	20000	40000	B	100	150	300	15	80	30	155	120	20	M30x130



UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.

WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting pins.

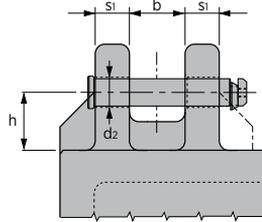
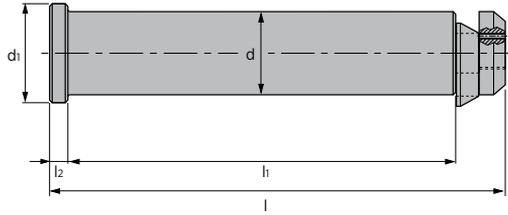
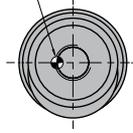
Respect the max. load.

ACHTUNG!

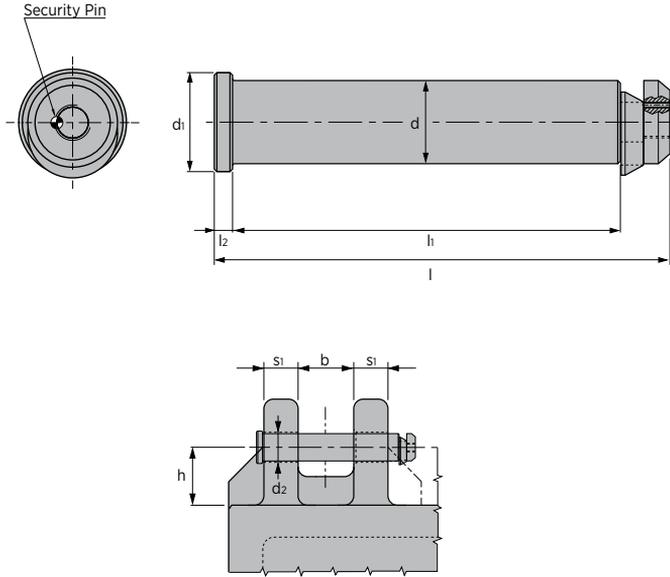
Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeuges gewicht tragen müssen.

Maximale Nutzlast beachten.

Security Pin



CODE	Max. Load (kg)	Max. Die Weight (kg)	d h11	d1	l +1	h +1	l2	d2 +1	h	b	s1	Material
C103-01-032-175	3200	6400	32	40	175	145	10	34	63	60	40	C45E
C103-01-040-225	5000	10000	40	50	225	188	10	42	80	80	50	C45E
C103-01-050-273	8000	16000	50	60	273	230	11	52	100	100	60	C45E
C103-01-063-347	12500	25000	63	75	347	295	14	65	125	120	80	C45E
C103-01-076-422	31500	63000	76	95	422	360	15	78	160	140	100	42CrMo4+QT


 Material:
 42CrMo4+QT

UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.

WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting pins.

Respect the max. load.

ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugs gewicht tragen müssen.

Maximale Nutzlast beachten.

CODE	Max. Load (kg)	Max. Die Weight (kg)	d h11	d1	l +1	l1 +1	l2	d2 +1	h	b	s1
C103-01-032-017	3200	6400	32	40	175	145	10	34	63	60	40
C103-01-040-022	5000	10000	40	50	225	188	10	42	80	80	50
C103-01-050-027	8000	16000	50	60	273	230	11	52	100	100	60
C103-01-063-034	12500	25000	63	75	347	295	14	65	125	120	80
C103-01-076-422	31500	63000	76	95	422	360	15	78	160	140	100



Material :
42CrMo4+QT



- * Sadece değişim için
- * Only for replacement
- * Nur für Reparatur

UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.

WARNING!

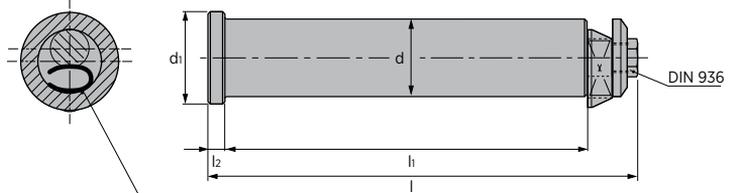
For safety reasons, the weight of the tool has to be supported by just two lifting pins.

Respect the max. load.

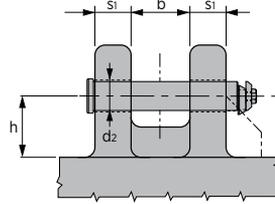
ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeuges gewicht tragen müssen.

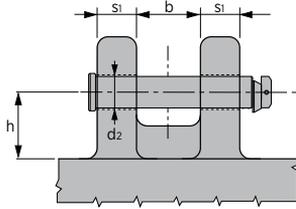
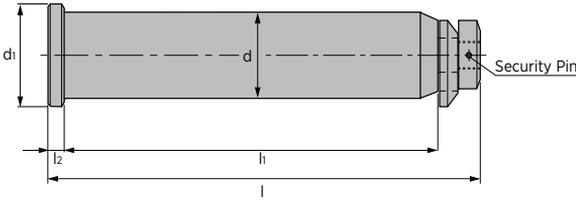
Maximale Nutzlast beachten.



The part is supplied complete of polypropylene spring



CODE	Max. Load (kg)	Max. Die Weight (kg)	d h11	d1	l	h	l2	d2	h	b	s1
C103-02-029-150	4000	8000	29	38	178,5	150	6	30	60	60	40
C103-02-033-170	7000	14000	33	43	200,5	170	6	35	65	60	50
C103-02-043-195	10000	20000	43	53	233	195	8	45	85	80	50
*C103-02-053-235	16000	32000	53	65	282	235	10	55	105	100	60
C103-02-053-180	16000	32000	53	65	227	180	10	55	75	65	50
C103-02-063-215	26000	52000	63	78	272,5	215	12	65	100	80	60
*C103-02-063-295	25000	50000	63	78	352,5	295	12	65	130	120	80
*C103-02-078-355	40000	80000	78	95	421,5	355	14	81	150	140	100


 Material :
 42CrMo4+QT

UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.

WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting pins.

Respect the max. load.

ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugs gewicht tragen müssen.

Maximale Nutzlast beachten.

CODE	Max. Load (kg)	Max. Die Weight (kg)	d -0,3	d ₁	l ±1	l ₁	l ₂	d ₂	h min.	b	s ₁
C103-03-035-125	1500	3000	35	45	165	125	10	37	60	50	30
C103-03-050-190	5500	10050	50	63	230	190	10	52	130	70	50
C103-03-063-280	23000	45500	63	76	320	280	10	65	145	100	80
C103-03-080-320	30000	60000	80	89	370	320	15	82	145	100	100


 Material :
 C45E

UYARI!

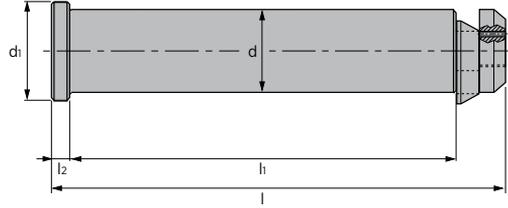
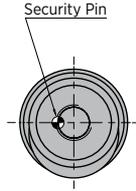
Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.
WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting pins.

Respect the max. load.
ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugs gewicht tragen müssen.

Maximale Nutzlast beachten.


CODE	Max. Load (kg)	Max. Die Weight (kg)	d h1	d ₁	l +1	h	l ₂
C103-04-030-158	3200	6400	30	40	158	129	10
C103-04-040-187	5000	10000	40	50	187	155	10
C103-04-050-220	8000	16000	50	60	220	180	11
C103-04-060-246	12500	25000	60	70	246	205	11
C103-04-080-305	18000	36000	80	90	305	205	12


 Material :
 42CrMo4+QT

UYARI!!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.

WARNING!

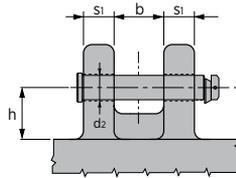
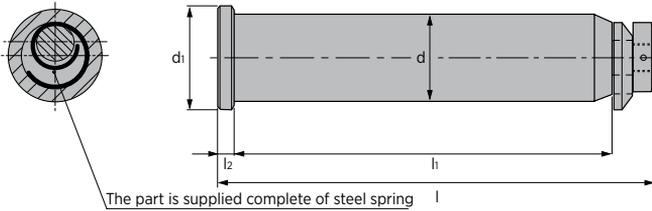
For safety reasons, the weight of the tool has to be supported by just two lifting pins.

Respect the max. load.

ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeuges gewicht tragen müssen.

Maximale Nutzlast beachten.



CODE	Max. Load (kg)	Max. Die Weight (kg)	d -0,3	d ₁	l	l _i	l _z	d ₂	h min.	b	s ₁
C103-04-050-190	5500	10050	50	63	230	190	10	52	130	70	50
C103-04-063-280	23000	45500	63	76	320	280	10	65	145	100	80
C103-04-080-320	30000	60000	80	89	370	320	15	82	145	100	100



Material :
42CrMo4+QT



UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.

WARNING!

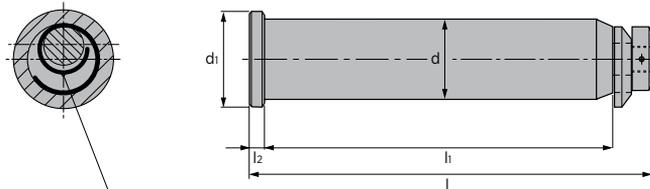
For safety reasons, the weight of the tool has to be supported by just two lifting pins.

Respect the max. load.

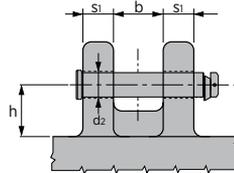
ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugs gewicht tragen müssen.

Maximale Nutzlast beachten.



The part is supplied complete of steel spring



CODE	Max. Load (kg)	Max. Die Weight (kg)	d -0,3	d ₁	l	l ₁	l ₂	d ₂	h min.	b	s ₁
C103-04-050-019	10000	20000	50	63	230	190	10	52	70	85	50
C103-04-063-028	20000	40000	63	76	320	280	10	65	100	110	80
C103-04-080-032	40000	80000	80	89	375	320	15	82	105	110	100


 Material :
 ST52

UYARI!

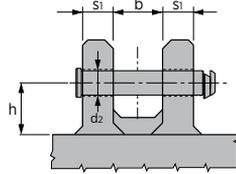
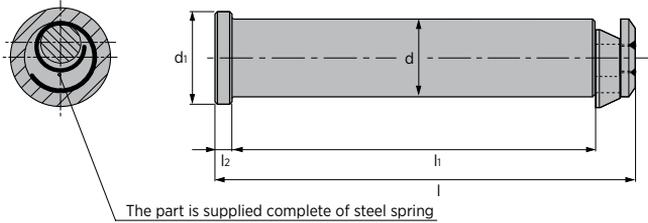
Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.
WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting pins.

Respect the max. load.
ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugsgewicht tragen müssen.

Maximale Nutzlast beachten.


CODE	Max. Load (kg)	Max. Die Weight (kg)	d h11	d1	l ±1	l1	l2	d2 +0,5	h	b	s1
C103-05-032-013	6000	12000	32	40	154	132	6	34	55	50	37,5
C103-05-040-017	9000	18000	40	50	197,5	170	8	42	70	65	47,5
C103-05-050-021	14000	28000	50	63	247,5	212	10	52	90	80	60
C103-05-063-026	22500	45000	63	80	309	265	12	65	100	100	75



Material :
C45E



UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.

WARNING!

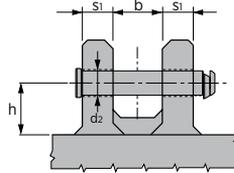
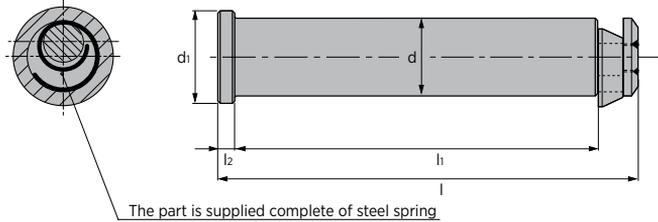
For safety reasons, the weight of the tool has to be supported by just two lifting pins.

Respect the max. load.

ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugs gewicht tragen müssen.

Maximale Nutzlast beachten.



CODE	Max. Load (kg)	Max. Die Weight (kg)	d h11	d1	l ±1	h	l2	d2 +0,5	h	b	s1
C103-05-032-132	6000	12000	32	40	154	132	6	34	55	50	37,5
C103-05-040-170	9000	18000	40	50	197,5	170	8	42	70	65	47,5
C103-05-050-212	14000	28000	50	63	247,5	212	10	52	90	80	60
C103-05-063-265	22500	45000	63	80	309	265	12	65	100	100	75


 Material :
 42CrMo4+QT

UYARI!

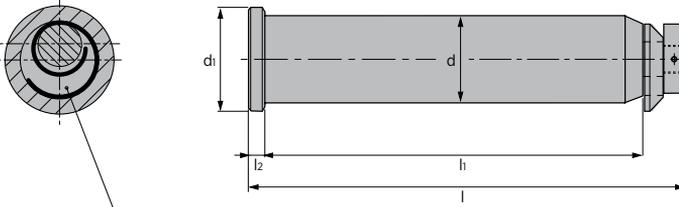
Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.
WARNING!

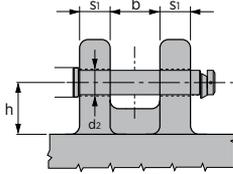
For safety reasons, the weight of the tool has to be supported by just two lifting pins.

Respect the max. load.
ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugs gewicht tragen müssen.

Maximale Nutzlast beachten.


The part is supplied complete of steel spring



CODE	Max. Load (kg)	Max. Die Weight (kg)	d -0,2	d ₁	l +1	h +1	l ₂	d ₂	h	b	s ₁
C103-06-032-155	3400	6800	32	40	177	155	5	34	65	70	40
C103-06-040-188	5650	11300	40	50	220	188	7	42	85	80	50
C103-06-050-230	8950	17900	50	60	270	230	9	52	100	100	60
C103-06-063-295	14350	28700	63	75	342	295	16	65	125	120	80
C103-06-080-335	26700	53400	80	89	387	335	16	82	160	120	100


 Material :
 C45E

UYARI!

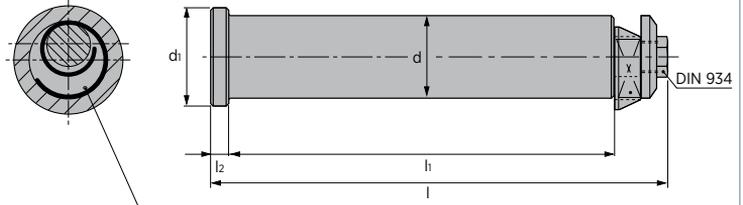
Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.
WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting pins.

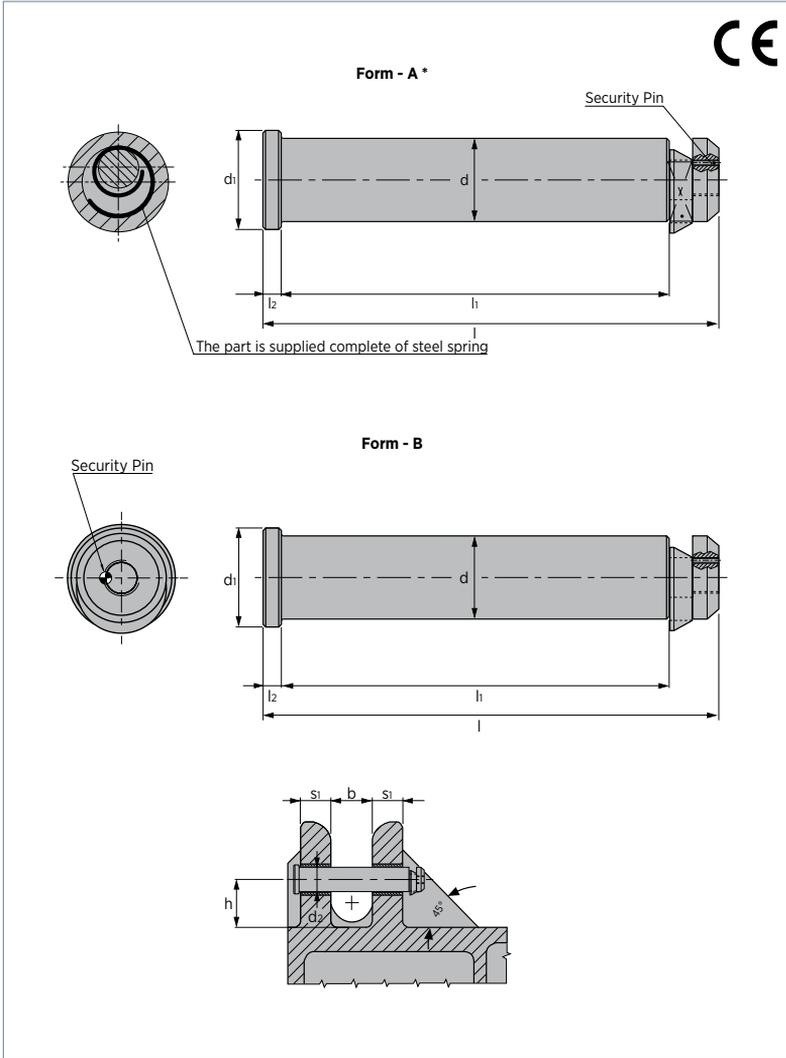
Respect the max. load.
ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugs gewicht tragen müssen.

Maximale Nutzlast beachten.


The part is supplied complete of polypropylene spring

CODE	Max. Load (kg)	Max. Die Weight (kg)	d h11	d ₁	l	h	l ₂
C103-07-00600	600	1200	15,6	25	102,5	77	6
C103-07-01000	1000	2000	20,6	30	113,5	86	6
C103-07-02000	2000	4000	25,6	35	128,5	100	6
C103-07-04000	4000	8000	33	43	166,5	135	6
C103-07-07000	7000	14000	43	53	210,5	175	8


UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma piminin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.
WARNING!

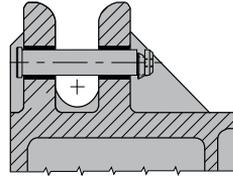
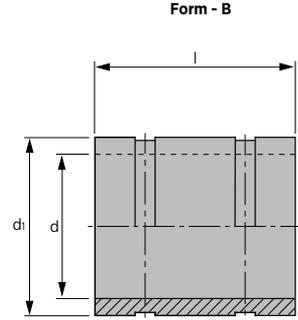
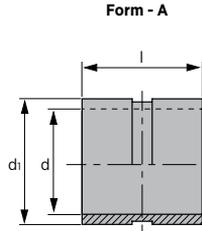
For safety reasons, the weight of the tool has to be supported by just two lifting pins.

Respect the max. load.
ACHTUNG!

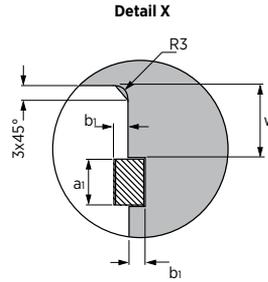
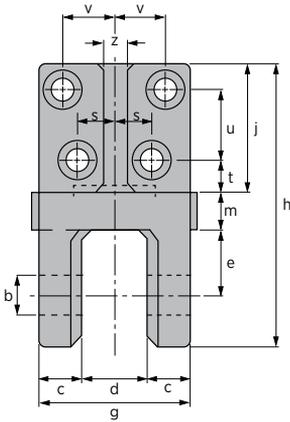
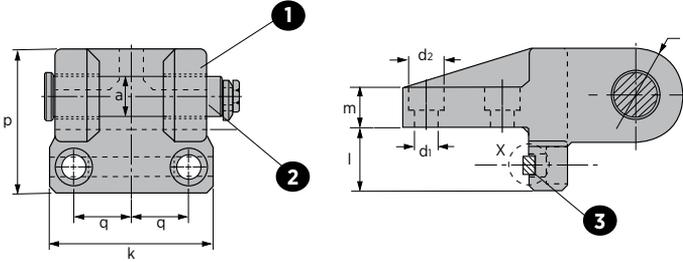
Aus Sicherheitsgründen achten Sie immer dass zwei Tragbolzen das gesamte Werkzeugs gewicht tragen müssen.

Maximale Nutzlast beachten.

CODE	Max. Load (kg)	Max. Die Weight (kg)	Form	d h11	d1	l	l1	l2	d2	h	b	s1	Material
* C103-09-032-175	3200	6400	A	32	40	175	145	10	34	63	60	40	C45E
* C103-09-040-225	5000	10000	A	40	50	225	188	10	42	80	80	50	C45E
* C103-09-050-273	8000	16000	A	50	60	273	230	11	52	100	100	60	C45E
* C103-09-063-347	12500	25000	A	63	75	347	295	14	65	125	120	80	C45E
* C103-09-076-422	31500	63000	A	76	95	422	360	15	78	160	140	100	42CrMo4+QT
C103-09-050-221	8000	16000	B	50	60	221	182	11	-	-	-	-	C45E
C103-09-063-277	12500	25000	B	63	75	277	225	14	-	-	-	-	C45E


 Material :
 St35


CODE	Form	d	d ₁	l
C104-01-034-040	A	34	44	40
C104-01-042-050	A	42	52	50
C104-01-052-060	A	52	62	60
C104-01-065-080	A	65	75	80
C104-01-078-1001	B	78	100	100
C104-01-078-1002	B	78	105	100



1 Material: C45E



800 ÷ 1000 N/mm²

2 C103-05

3 KEY DIN 6885

Screws not included.

UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma braketinin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.

WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting brackets.

Respect the max. load.

ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragwagen das gesamte Werkzeugs gewicht tragen müssen.

Maximale Nutzlast beachten.

CODE	Max. Load (kg)	Max. Die Weight (kg)	a	b H13	c	d	d ₁ H13	d ₂ H13	e	g	h	j
C105-01-04000	4000	8000	32	33	35	55	18	28	55	125	221	100
C105-01-06300	6300	12600	40	41	50	60	22	36	60	160	270	125

CODE	k	l	m	p	q	r	s	t	u	v	w	z	a ₁ E9	b ₁ +0,1
C105-01-04000	135	50	30	111	48	36	28	20	60	42	24	20	14	4,5
C105-01-06300	180	60	40	140	65	45	40	30	70	55	27	25	16	5


1 Material: C45E

 800 ÷ 1000 N/mm²
2 C103-07

Screws not included.

UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma braketinin taşıyabileceği maksimum yük miktarını aşmamalıdır.

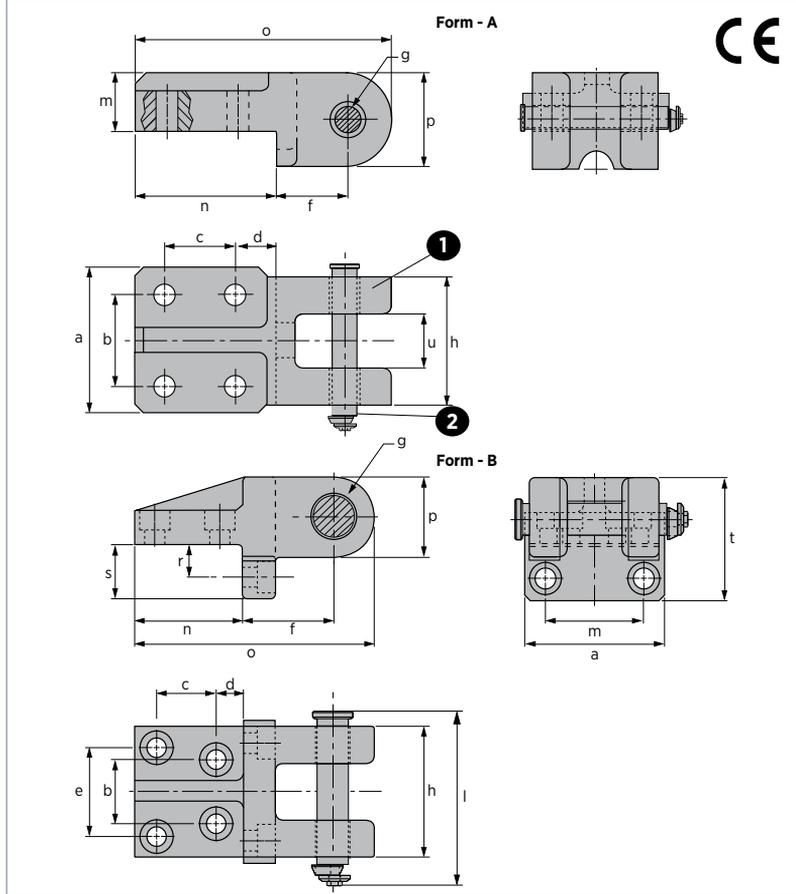
Maksimum yükü göz ardı etmeyiniz.
WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting brackets.

Respect the max. load.

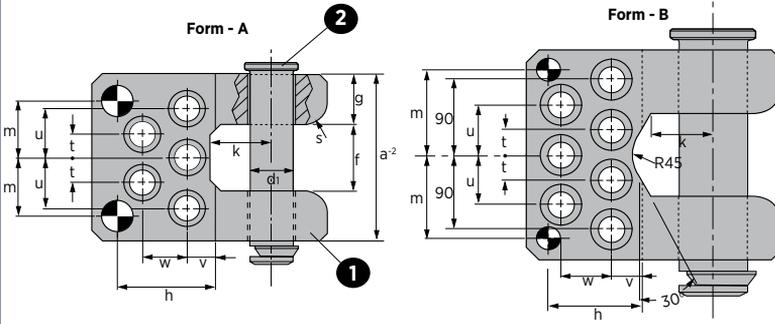
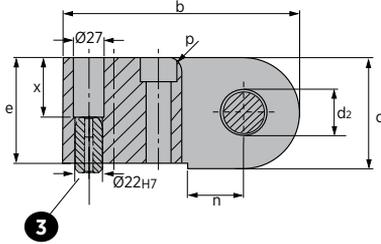
ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragwangen das gesamte Werkzeugsgewicht tragen müssen.

Maximale Nutzlast beachten.


CODE	Max. Load (kg)	Max. Die Weight (kg)	Form	a	b	c	d	e	f
C105-02-00600	600	1200	A	80	50	40	22,5	-	39
C105-02-01000	1000	2000	A	90	60	40	27,5	-	42
C105-02-02000	2000	4000	A	100	65	65	32,5	-	60
C105-02-04000	4000	8000	B	135	56	60	20	84	85
C105-02-07000	7000	14000	B	180	80	70	30	110	100

CODE	g	h	l	m	n	o	p	r	s	t	u
C105-02-00600	16	70	102,5	32	80	145	52	-	-	-	30
C105-02-01000	21	79	113,5	36	90	160	56	-	-	-	35
C105-02-02000	26	90	128,5	50	120	215	70	-	-	-	40
C105-02-04000	34	125	166,5	96	100	221	72	30	50	111	55
C105-02-07000	44	160	210,5	130	125	270	90	35	60	140	60



- 1** Material: St52
- 2** C103-04
- 3** Locating Pin
M303-02-022045 (x2)



Screws not included.

UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma braketinin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.

WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting brackets.

Respect the max. load.

ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragwangen das gesamte Werkzeugsgewicht tragen müssen.

Maximale Nutzlast beachten.

CODE	Max. Load (kg)	Max. Die Weight (kg)	Form	a	b	c	d ₁	d ₂	e	f	g
C105-03-06400	3200	6400	A	126	185	80	30	32	75	50	38
C105-03-10000	5000	10000	A	150	210	100	40	42	95	60	45
C105-03-16000	8000	16000	A	175	240	120	50	52	115	75	50
C105-03-25000	12500	25000	A	200	300	140	60	62	130	80	60
C105-03-36000	18000	36000	B	250	300	160	80	82	150	100	75

CODE	h ±0,02	k	m	n	p	s	t	u	v	w	x	Civata
C105-03-06400	85	50	45	40	12	16	20	40	30	35	40	M16x80
C105-03-10000	87	55	52	50	12	20	22,5	45	25	40	60	M20x100
C105-03-16000	95	70	62,5	60	16	24	25	50	35	45	80	M24x120
C105-03-25000	145	80	77,5	65	20	30	35	65	60	65	95	M36x160
C105-03-36000	105	95	100	90	20	30	30	60	30	60	115	M30x160



- 1** Material: St52
- 2** C103-09
- 3** Locating Pin
M303-02-022045 (x2)



UYARI!
 Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma braketinin taşıyabileceği maksimum yük miktarını aşmamalıdır.

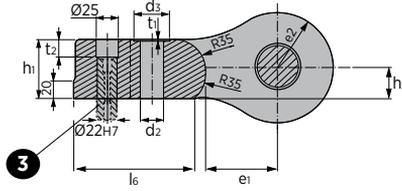
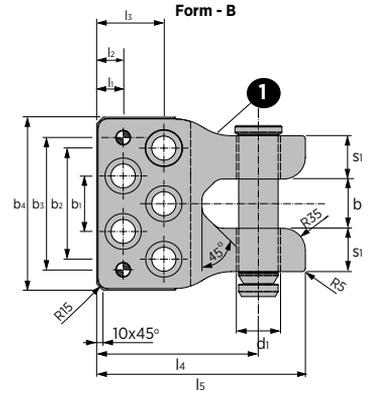
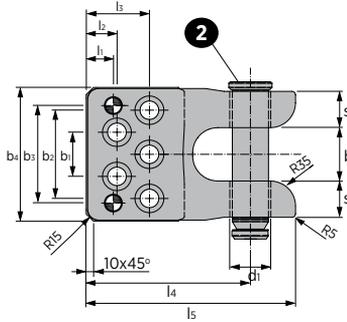
Maksimum yükü göz ardı etmeyiniz.

WARNING!
 For safety reasons, the weight of the tool has to be supported by just two lifting brackets.

Respect the max. load.

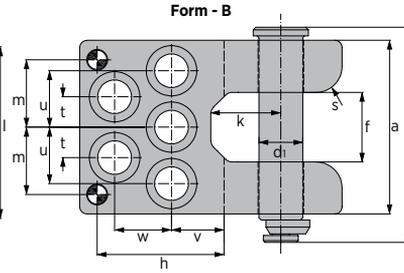
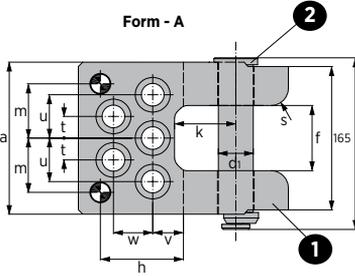
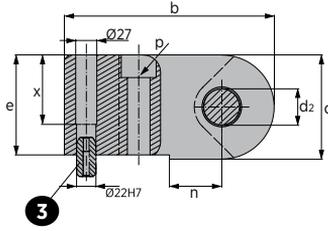
ACHTUNG!
 Aus Sicherheitsgründen achten Sie immer dass zwei Tragwagen das gesamte Werkzeuges gewicht tragen müssen.

Maximale Nutzlast beachten.


Form - A

Form - B


CODE	Max. Load (kg)	Max. Die Weight (kg)	Form	b	b ₁	b ₂	b ₃	b ₄	d ₁	d ₂	d ₃	e ₁	e ₂	h ₁	h ₂
C105-04-08000	8000	16000	A	75	62	124	137	188	52	26	40	80	62,5	67	35
C105-04-12500	12500	25000	B	80	90	180	214	280	65	39	58	90	75	91	47

CODE	h ₁	l ₂	l ₃	l ₄	l ₅	l ₆	s ₁	t ₁	t ₂
C105-04-08000	37,5	42,5	87,5	227,5	290	135	51	2	20
C105-04-12500	42	-	107	258	333	150	70	7	46



- 1** Material: St52
- 2** C103-04
- 3** Locating Pin
M303-02-022045 (x2)



Screws not included.

UYARI!

Güvenlik nedeniyle kalıp ağırlığı iki adet taşıma braketinin taşıyabileceği maksimum yük miktarını aşmamalıdır.

Maksimum yükü göz ardı etmeyiniz.

WARNING!

For safety reasons, the weight of the tool has to be supported by just two lifting brackets.

Respect the max. load.

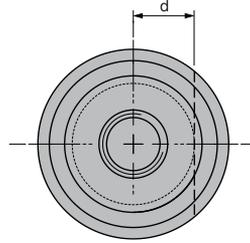
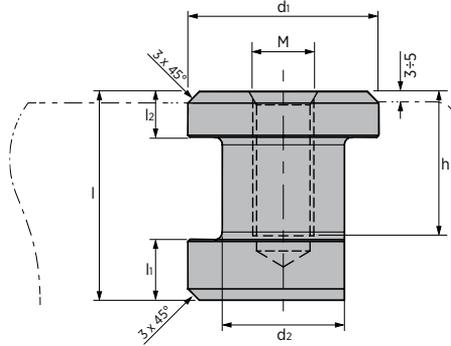
ACHTUNG!

Aus Sicherheitsgründen achten Sie immer dass zwei Tragwagen das gesamte Werkzeuges gewicht tragen müssen.

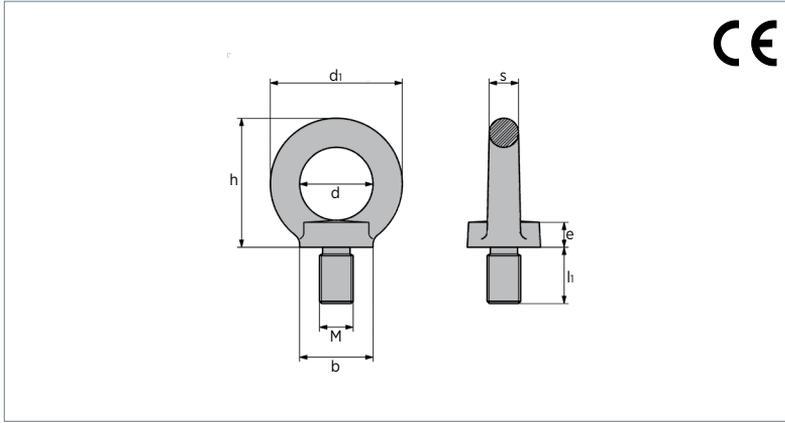
Maximale Nutzlast beachten.

CODE	Max. Load (kg)	Max. Die Weight (kg)	Form	a	b	c	d ₁	d ₂	e	f
C105-06-08000	8000	16000	A	175	240	120	40	42	115	75
C105-06-12500	12500	25000	B	200	300	140	50	52	130	80

CODE	h ±0,02	k	m	n	p	s	t	u	v	w	x	Civata
C105-06-08000	95	70	62,5	60	20	24	25	50	35	45	80	M24x120
C105-06-12500	145	80	77,5	65	20	30	35	65	60	65	95	M36x160


 Material :
 42CrMo4+QT


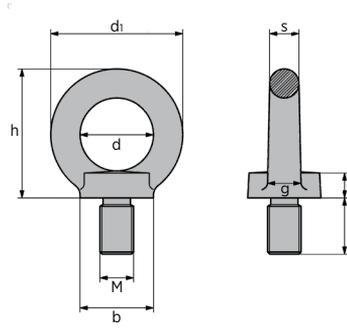
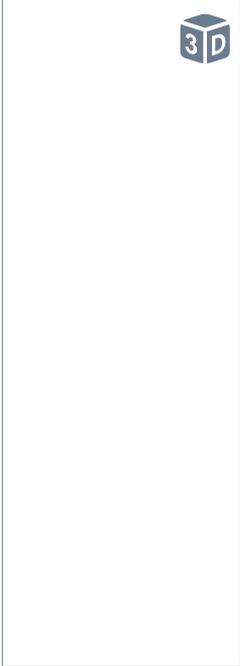
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C105-05-055-1642	1000	2000	M16	16	50	32	55	16	12	42
C105-05-065-2047	2100	4200	M20	18	65	36	65	16	12	47
C105-05-075-2257	2800	5600	M22	20	65	40	75	16	12	57
C105-05-075-2457	3000	6000	M24	20	65	40	75	16	12	57
C105-05-090-3067	5000	10000	M30	30	85	60	90	20	20	67
C105-05-100-3677	6500	13000	M36	40	107	80	100	22	22	77
C105-05-130-4295	7200	14400	M42	40	107	80	130	25	25	95
C105-05-150-48110	8000	16000	M48	40	107	80	150	30	30	110



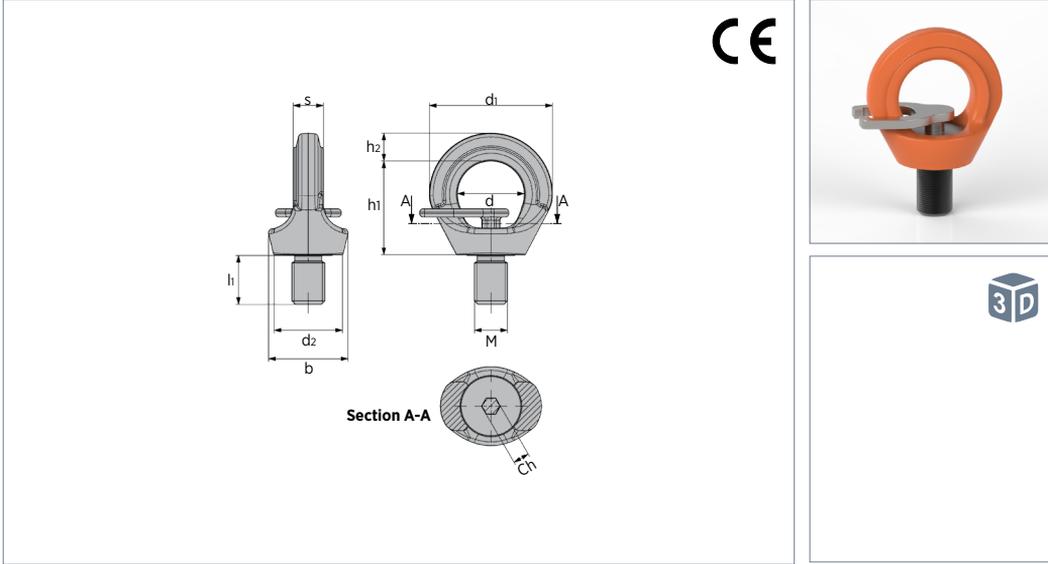
CODE	Mxh	d	d ₁	h	b	e	s	Weight (kg)
C102-01-045-006	M6x13	25	45	45	25	10	10	0,090
C102-01-045-008	M8x13	25	45	45	25	10	10	0,090
C102-01-045-010	M10x17	25	45	45	25	10	10	0,110
C102-01-063-012	M12x21	35	63	62	35	14	14	0,270
C102-01-063-014	M14x21	35	63	62	35	14	14	0,290
C102-01-063-016	M16x27	35	63	62	35	14	14	0,310
C102-01-090-020	M20x30	50	90	90	50	20	20	0,860
C102-01-090-024	M24x36	50	90	90	50	20	20	0,900
C102-01-108-030	M30x45	60	108	109	65	24	24	1,700
C102-01-126-036	M36x54	70	126	128	75	26	28	2,150



Mxh	0° Single Leg	0° 2 Legs	0° - 45° 2 Legs	45° - 60° 2 Legs	0° - 45° 3/4 Legs	45° - 60° 3/4 Legs	Max. Tightening Couple (Nm)
M6x13	0,4	0,8	0,14	0,1	0,2	0,14	3,5
M8x13	0,8	1,6	0,28	0,2	0,4	0,28	8
M10x17	1	2	0,35	0,25	0,5	0,35	16
M12x21	1,6	3,2	0,56	0,4	0,8	0,56	28
M14x21	3	6	1	0,75	1,5	1	45
M16x27	4	8	1,4	1	2	1,4	70
M20x30	6	12	2,1	1,5	3	2,1	135
M24x36	8	16	2,8	2	4	2,8	230
M30x45	12	24	4,2	3	6	4,2	465
M36x54	16	32	5,6	3,9	7,8	5,4	814



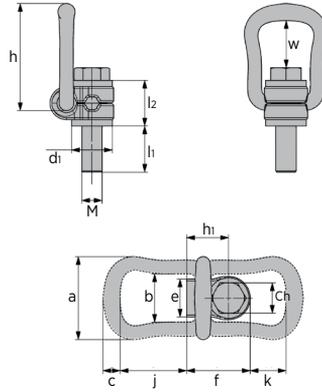
CODE	Mxh	d	d ₁	h	b	e	s	g	Working Load Limit W.L.L. (kg)			Max. Tightening Couple (Nm)	Weight (kg)
									⊥	45° ∧	90° └		
C102-02-036-006	M6x13	20	36	36	20	6	8	10	75	55	38	3,5	0,060
C102-02-036-008	M8x13	20	36	36	20	6	8	10	140	100	70	8	0,060
C102-02-045-010	M10x17	25	45	45	25	8	10	12	230	170	115	16	0,110
C102-02-054-012	M12x20,5	30	54	53	30	10	12	14	340	240	170	28	0,180
C102-02-063-014	M14x27	35	63	62	35	12	14	16	490	350	245	45	0,270
C102-02-063-016	M16x27	35	63	62	35	12	14	16	700	500	350	70	0,280
C102-02-072-020	M20x30	40	72	71	40	14	16	19	1200	860	600	135	0,450
C102-02-090-024	M24x36	50	90	90	50	18	20	24	1800	1290	900	230	0,740
C102-02-108-030	M30x45	60	108	109	65	22	24	28	3200	2300	1600	465	1,660
C102-02-126-036	M36x54	70	126	128	75	26	28	32	4600	3300	2300	814	2,650



CODE	MxH	Working Load Limit W.L.L. (t)	d	d ₁	d ₂	h ₁	h ₂	b	s	Ch	Weight (kg)
C102-03-046-008	M8x12	0,3	25	46	25,5	33,7	10	30	9,8	6	0,120
C102-03-046-010	M10x15	0,4	25	46	25,5	33,7	10	30	9,8	6	0,120
C102-03-0555-012	M12x18	0,75	30	55,5	30,6	41,5	12,5	36,5	11,5	8	0,200
C102-03-0645-016	M16x24	1,5	35	64,5	36,5	49,5	14,5	42	15,7	10	0,350
C102-03-0745-020	M20x30	2,3	40	74,5	42	58	16	52,5	18	12	0,600
C102-03-090-024	M24x36	3,2	49	90	50	69	20,5	61	22	12	1,000
C102-03-111-030	M30x45	4,5	60	111	66	86	25,5	75	28	17	2,000
C102-03-135-036	M36x55	7	74	135	77	105	32	96,5	30	22	3,400



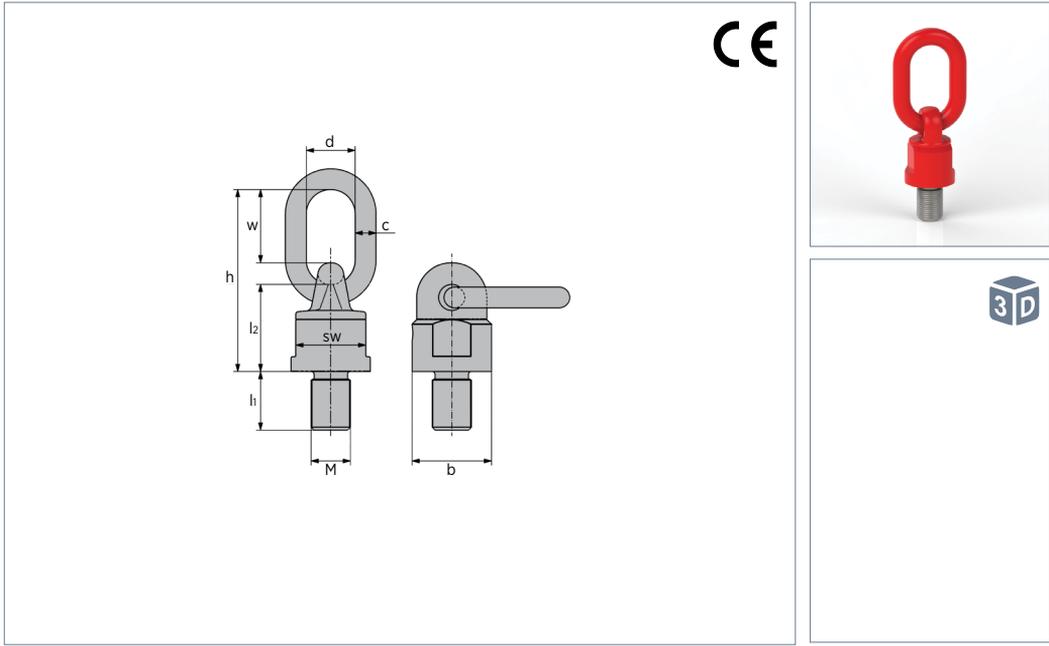
MxH	0°		90°		0° - 45°		45° - 60°		Asimm		Max. Tightening Couple (Nm)
	Single Leg	2 Legs	Single Leg	2 Legs	2 Legs		3/4 Legs		Asimm		
M8x12	1	2	0,3	0,6	0,42	0,3	0,3	0,63	0,45	0,3	8
M10x15	1	2	0,4	0,8	0,56	0,4	0,4	0,84	0,6	0,4	16
M12x18	2	4	0,75	1,5	1	0,75	0,75	1,6	1,12	0,75	25
M16x24	4	8	1,5	3	2	1,5	1,5	3,15	2,25	1,5	60
M20x30	6	12	2,3	4,6	3,22	2,3	2,3	4,83	3,45	2,3	110
M24x36	8	16	3,2	6,4	4,48	3,2	3,2	6,7	4,8	3,2	195
M30x45	12	24	4,5	9	6,3	4,5	4,5	9,4	6,7	4,5	320
M36x55	16	32	7	14	9,8	7	7	14,7	10,5	7	585



CODE	Mxh	Working Load Limit W.L.L (t)	d ₁	h	h ₁	h ₂	l ₂	a	b	c	e	f	w	j	k	Ch	Weight (kg)
C102-04-078-008	M8x15	0,3	25	78	26,5	15	30	57	34	10	24	41	43	51	35	13	0,275
C102-04-078-010	M10x15	0,63	25	78	26,5	15	30	57	34	10	24	41	42	51	35	17	0,290
C102-04-085-012	M12x23	1	32	85	33	23	36	66	38	13,5	30	50	40	52	28	19	0,500
C102-04-085-016	M16x24	1,5	32	85	33	24	36	66	38	13,5	30	50	38	52	28	24	0,510
C102-04-111-020	M20x31	2,5	45	111	42,5	31	44	87	55	16	48	68	54	71	36	30	1,250
C102-04-111-024	M24x37	4	45	111	42,5	37	44	87	55	16	48	68	51	71	36	36	1,300
C102-04-145-030	M30x45	5	60	145	58,5	45	65	109	66	22,5	54	91	62	86	47	46	3,250
C102-04-190-036	M36x59	8	70	190	72,5	59	81	136	78	28	62	108	88	115	74	55	5,900



Mxh	0°	0°	90°	90°	0° - 45°	45° - 60°	Asimm	0° - 45°	45° - 60°	Asimm	Max. Tightening Couple (Nm)
	Single Leg	2 Legs	Single Leg	2 Legs	2 Legs			3/4 Legs			
M8x15	0,3	0,6	0,3	0,6	0,42	0,3	0,3	0,63	0,45	0,3	30
M10x15	0,63	1,26	0,63	1,26	0,88	0,63	0,63	1,32	0,95	0,63	60
M12x23	1	2	1	2	1,4	1	1	2,1	1,5	1	100
M16x24	1,5	3	1,5	3	2,1	1,5	1,5	3,15	2,25	1,5	150
M20x31	2,5	5	2,5	5	3,5	2,5	2,5	5,25	3,75	2,5	250
M24x37	4	8	4	8	5,6	4	4	8,4	6	4	400
M30x45	5	10	5	10	7	5	5	10,5	7,5	5	500
M36x59	8	16	8	16	11,2	8	8	16,8	12	8	800



CODE	Mxh	Working Load Limit W.L.L. (t)	d	h	l ₂	b	c	w	sw	Weight (kg)
C102-05-105-0816	M8x16	0,3	30	105	50	38	13	46	30	0,480
C102-05-105-1018	M10x18	0,3	30	105	50	38	13	46	30	0,480
C102-05-105-1218	M12x18	0,5	30	105	50	38	13	46	30	0,500
C102-05-105-1620	M16x20	1,12	30	105	50	38	13	46	30	0,530
C102-05-105-2030	M20x30	1,12	30	105	50	38	13	46	30	0,530
C102-05-153-2430	M24x30	3,15	40	153	68	58	18	70	48	1,630
C102-05-205-3035	M30x35	8	50	205	95	85	23	95	75	5,300



Mxh	0°	0°	90°	90°	0° - 45°	45° - 60°	Asimm	0° - 45°	45° - 60°	Asimm	Max. Tightening Couple (Nm)
	Single Leg	2 Legs	Single Leg	2 Legs	2 Legs			3/4 Legs			
M8x16	0,6	1,2	0,3	0,6	0,42	0,3	0,3	0,63	0,45	0,3	16
M10x18	0,6	1,2	0,3	0,6	0,42	0,3	0,3	0,63	0,45	0,3	16
M12x18	1	2	0,5	1	0,75	0,5	0,5	1,1	0,75	0,5	28
M16x20	2	4	1,12	2	1,5	1,12	1,12	2,36	1,6	1,12	70
M20x30	2	4	1,12	2	1,5	1,12	1,12	2,36	1,6	1,12	135
M24x30	6,3	12,5	3,15	6,3	4,25	3,15	3,15	6,3	4,75	3,15	230
M30x35	12,5	25	8	16	11,2	8	8	16,8	12	8	465



2 KILAVUZ ELEMANLARI
GUIDE ELEMENTS
FÜHRUNGSELEMENTE

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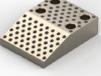
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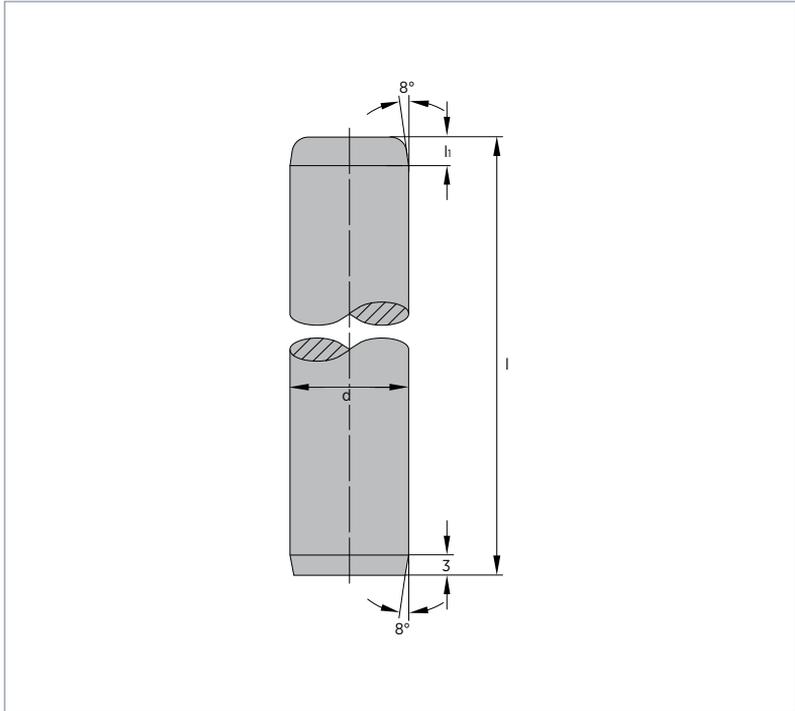
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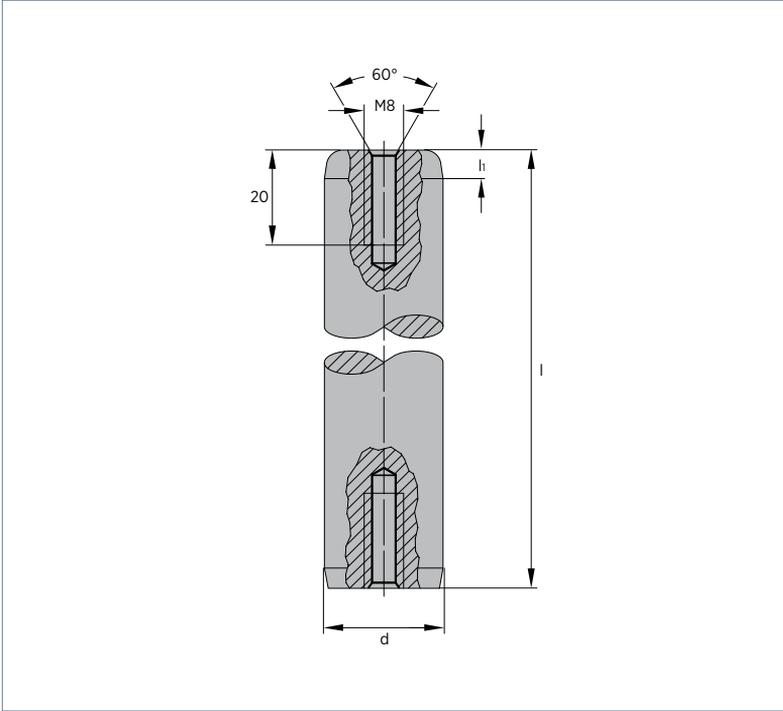
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 Material :
 Steel

 Surface Hardened
 HRC 60 ÷ 64


d	l																		h		
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48	-	-	-	-	-	-	180	200	224	250	280	315	355	400	450	500	550	600	700	800	8
50	-	-	-	-	-	-	180	200	224	250	280	315	355	400	450	500	550	600	700	800	8
60	-	-	-	-	-	-	-	-	-	250	280	315	355	400	450	500	550	600	700	800	8
63	-	-	-	-	-	-	-	-	-	250	280	315	355	400	450	500	550	600	700	800	8
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	450	500	550	600	700	800	8

Order Example:
d= 25, l= 224
Order Code: G200-01-025-224



Material :
Steel

Surface Hardened
HRC 60 ± 64

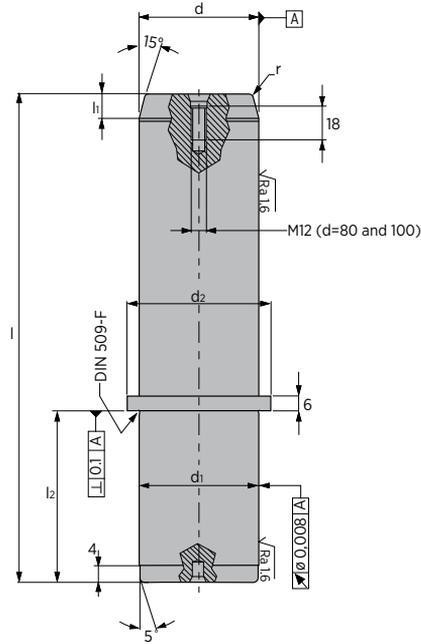


d	l																		h		
h3	90	100	112	125	140	160	180	200	224	250	280	315	355	-	-	-	-	-	-	4	
15	90	100	112	125	140	160	180	200	224	250	280	315	355	-	-	-	-	-	-	4	
16	90	100	112	125	140	160	180	200	224	250	280	315	355	-	-	-	-	-	-	4	
19	-	100	112	125	140	160	180	200	224	250	280	315	355	400	-	-	-	-	-	4	
20	-	100	112	125	140	160	180	200	224	250	280	315	355	400	-	-	-	-	-	4	
24	-	100	112	125	140	160	180	200	224	250	280	315	355	400	450	500	-	-	-	6	
25	-	100	112	125	140	160	180	200	224	250	280	315	355	400	450	500	-	-	-	6	
30	-	-	-	125	140	160	180	200	224	250	280	315	355	400	450	500	-	-	-	6	
32	-	-	-	125	140	160	180	200	224	250	280	315	355	400	450	500	-	-	-	6	
38	-	-	-	-	-	160	180	200	224	250	280	315	355	400	450	500	550	600	700	800	6
40	-	-	-	-	-	160	180	200	224	250	280	315	355	400	450	500	550	600	700	800	6
48	-	-	-	-	-	-	180	200	224	250	280	315	355	400	450	500	550	600	700	800	8
50	-	-	-	-	-	-	180	200	224	250	280	315	355	400	450	500	550	600	700	800	8
60	-	-	-	-	-	-	-	-	-	250	280	315	355	400	450	500	550	600	700	800	8
63	-	-	-	-	-	-	-	-	-	250	280	315	355	400	450	500	550	600	700	800	8
80	-	-	-	-	-	-	-	-	-	-	280	315	355	400	450	500	550	600	700	800	8

Order Example:
d= 32, l= 200
Order Code: G200-02-032-200

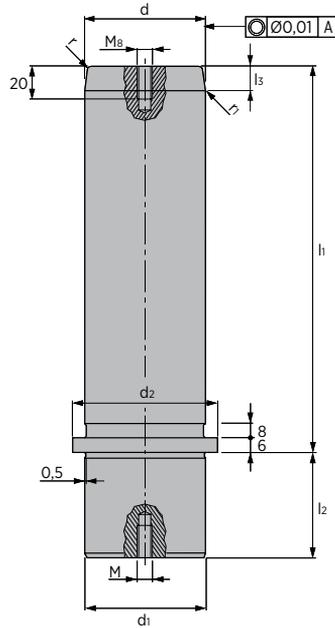
2

 Material :
 Steel

 Surface Hardened
 HRC 60 ± 62


d f6	d1 r6	l											h	l2	d2	r
25	25	140	160	180	-	-	-	-	-	-	-	-	4	40	33	2
32	32	140	160	180	200	-	-	-	-	-	-	8	45	40	2	
40	40	-	160	180	200	224	250	-	-	-	-	8	56	50	2	
50	50	-	160	180	200	224	250	280	315	-	-	10	70	60	2,5	
63	63	-	-	-	200	224	250	280	315	355	400	-	10	80	80	2,5
80	80	-	-	-	-	-	250	280	315	355	400	500	10	100	90	3
100	100	-	-	-	-	-	-	-	315	355	400	500	10	125	110	3

Order Example:
d= 80, l= 315
Order Code: G201-01-080-315



Material :
Steel

Surface Hardened
HRC 60 ± 64



d	d ₁	h ₁											l ₂	l ₃	d ₂	M	r	n		
h4	j6	100	112	125	140	160	180	200	-	-	-	-	-	-	20	4	22	M8	2	15
15	15	100	112	125	140	160	180	200	-	-	-	-	-	-	20	4	22	M8	2	15
16	16	100	112	125	140	160	180	200	-	-	-	-	-	-	20	4	22	M8	2	15
19	19	100	112	125	140	160	180	200	-	-	-	-	-	-	23	4	25	M8	2,5	20
20	20	100	112	125	140	160	180	200	-	-	-	-	-	-	23	4	25	M8	2,5	20
24	24	100	112	125	140	160	180	200	224	250	-	-	-	-	30	6	32	M8	3	20
25	25	100	112	125	140	160	180	200	224	250	-	-	-	-	30	6	32	M8	3	30
30	30	-	112	125	140	160	180	200	224	250	280	315	-	-	37	6	40	M8	3	30
32	32	-	112	125	140	160	180	200	224	250	280	315	-	-	37	6	40	M8	3	30
38	38	-	-	125	140	160	180	200	224	250	280	315	355	-	37	6	50	M8	3,5	30
40	40	-	-	125	140	160	180	200	224	250	280	315	355	-	37	6	50	M8	3,5	30
48	48	-	-	-	140	160	180	200	224	250	280	315	355	400	47	8	63	M8	3,5	30
50	50	-	-	-	140	160	180	200	224	250	280	315	355	400	47	8	63	M8	3,5	30
60	60	-	-	-	-	160	180	200	224	250	280	315	355	400	47	8	80	M8	4	30
63	63	-	-	-	-	160	180	200	224	250	280	315	355	400	47	8	80	M8	4	30
80	80	-	-	-	-	-	180	200	224	250	280	315	355	400	60	8	95	M12	4	30

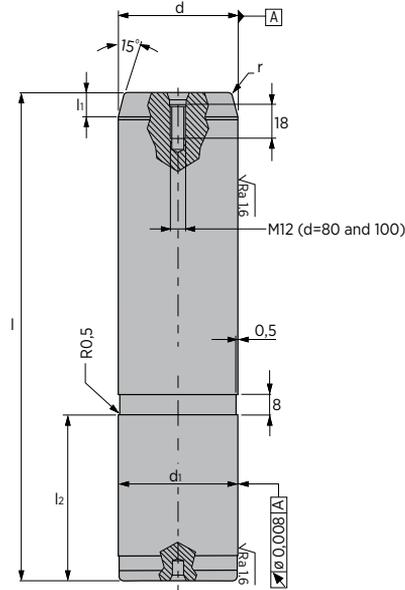
Order Example:

 d= 80, l₂= 60, h₁= 315

Order Code: G201-02-08060315

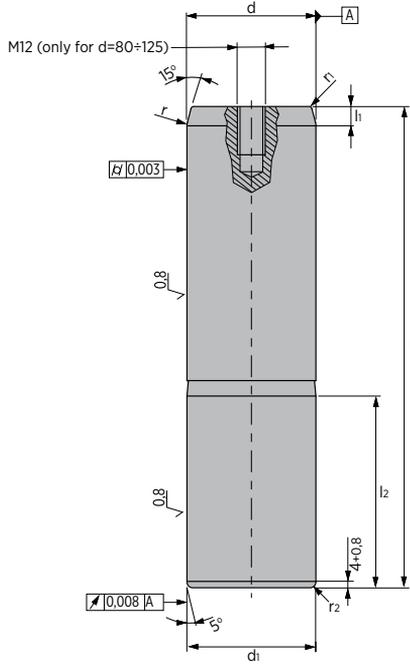
2

 Material :
 Steel

 Surface Hardened
 HRC 60 ± 62


d	d _{r6}	l														l ₁	l ₂	r		
25	25	140	160	180	-	-	-	-	-	-	-	-	-	-	-	-	-	4	40	2
32	32	140	160	180	200	-	-	-	-	-	-	-	-	-	-	-	-	8	45	2
40	40	-	160	180	200	224	250	-	-	-	-	-	-	-	-	-	-	8	56	2
50	50	-	160	180	200	224	250	280	-	315	-	360	-	-	-	-	-	10	70	2,5
63	63	-	-	-	200	224	250	280	300	315	355	-	400	-	-	-	-	10	80	2,5
80	80	-	-	-	-	-	250	280	-	315	355	-	400	450	500	-	-	10	100	3
100	100	-	-	-	-	-	-	-	-	315	355	-	400	-	500	550	600	10	125	3

Order Example:
d= 80, l= 315
Order Code: G202-01-080-315


 Material :
 Steel
 Surface Hardened
 HRC 60 ± 62


d r6	d1 r6	l -1														l1 +0,8	l2 +0,8	r	n
25	25	125	140	160	180	200	224	-	-	-	-	-	-	-	-	8	40	3	2
32	32	125	140	160	180	200	224	250	-	-	-	-	-	-	-	8	45	3	2
40	40	-	140	160	180	200	224	250	280	-	-	-	-	-	-	8	56	3	2
50	50	-	-	160	180	200	224	250	280	315	355	-	-	-	-	10	70	5	2,5
63	63	-	-	-	180	200	224	250	280	315	355	400	-	-	-	10	80	6	2,5
80	80	-	-	-	-	200	224	250	280	315	355	400	450	-	-	10	100	8	3
100	100	-	-	-	-	-	224	250	280	315	355	400	450	500	-	10	125	10	3
125	125	-	-	-	-	-	-	-	-	315	355	400	450	500	550	12	140	12	4

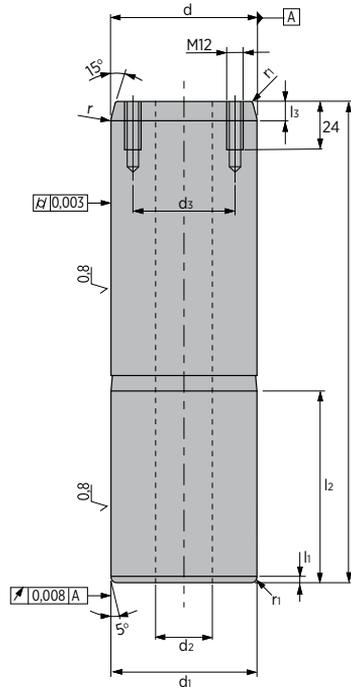
Order Example:

d= 80, l= 315

Order Code: G202-02-080-315

2

 Material :
 Steel

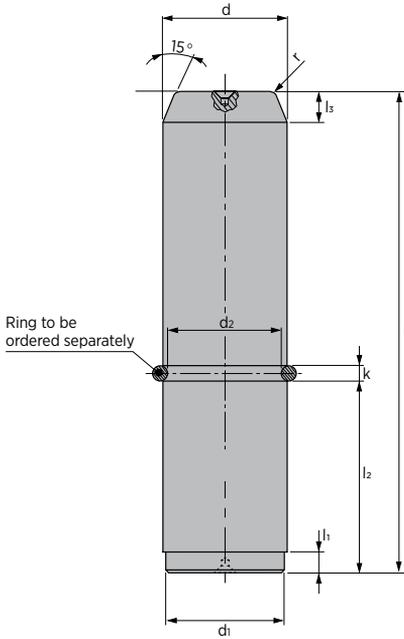
 Surface Hardened
 HRC 60 ± 62


d f6	d1 r6	l -1										l1 +0,8	l2 +0,8	l3 +0,8	d2 ±2	d3 +0,8	r	r1	
80	80	200	224	250	280	315	355	400	450	-	-	-	4	100	10	40	58	8	3
100	100	-	224	250	280	315	355	400	450	-	-	-	4	125	10	50	72	10	3
125	125	-	-	-	-	315	355	400	450	500	550	-	4	140	12	65	90	12	4
160	160	-	-	-	-	-	-	400	450	500	-	560	5	180	12	95	132	18	4

Order Example:

d= 80, l= 315

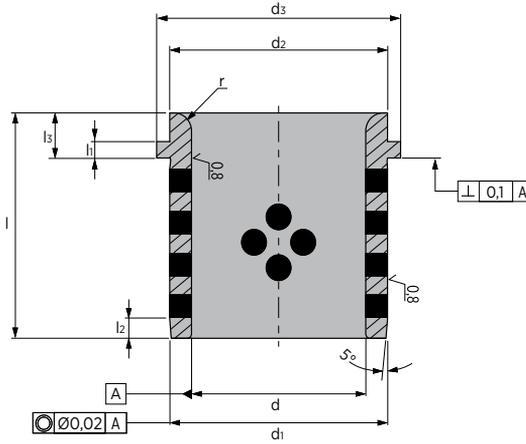
Order Code: G202-03-080-315


 Material :
 Steel

 Surface Hardened
 HRC 60 ÷ 62

d	d _{h5}	d _{h8}	l														h	l ₂	l ₃	d ₂	k	r
25	25	100	125	140	160	180	200	220	224	-	-	-	-	-	-	-	8	25	8	22,3	2,7	2
32	32	-	125	140	160	180	200	220	224	250	-	-	-	-	-	-	12	32	10	27,8	4,2	2
40	40	-	-	-	-	180	200	220	224	250	280	315	-	-	-	-	12	63	12	35,8	4,2	2
50	50	-	-	-	-	-	200	220	224	250	280	315	355	400	-	-	12	80	16	45,8	4,2	2,5
63	63	-	-	-	-	-	-	-	-	250	280	315	355	400	-	-	18	100	16	56,8	6,2	2,5
80	80	-	-	-	-	-	-	-	-	-	-	315	355	400	450	-	18	125	16	73,8	6,2	3
100	100	-	-	-	-	-	-	-	-	-	-	-	355	400	450	500	18	160	16	93,8	6,2	3

Order Example:
d= 80, l= 315
Order Code: G202-05-080-315



Material :
 Bronze + Graphite
 Hardened
 HB ≥ 190



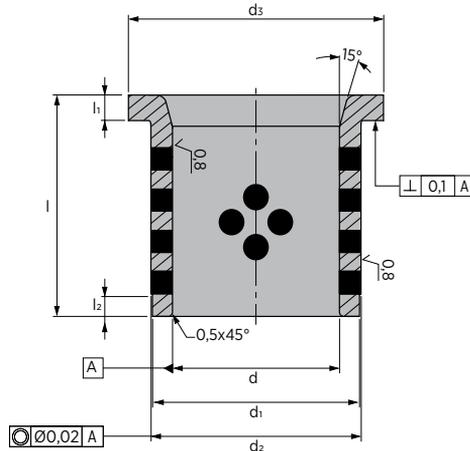
CODE	d H7	l -0,5 /-1	h ±0,1	l ₂	l ₃ -0,5	d ₁ h6	d ₂ -0,25	d ₃ -0,8	r
G211-02-025-040	25	40	6,3	3	10	32	32	40	3
G211-02-032-050	32	50	6,3	4	12	40	40	50	3
G211-02-040-063	40	63	6,3	5	15	50	50	63	3
G211-02-050-071	50	71	6,3	6,3	17	63	63	71	5
G211-02-063-080	63	80	10	8	19	80	80	90	6
G211-02-080-100	80	100	10	10	22	100	100	112	8
G211-02-100-125	100	125	10	12,5	21	125	125	140	10
G211-02-125-160	125	160	10	16	30	160	160	180	12
G211-02-160-200	160	200	10	16	32	200	200	220	18

Order Example:

d= 80, l= 100

Order Code: G211-02-080-100

2

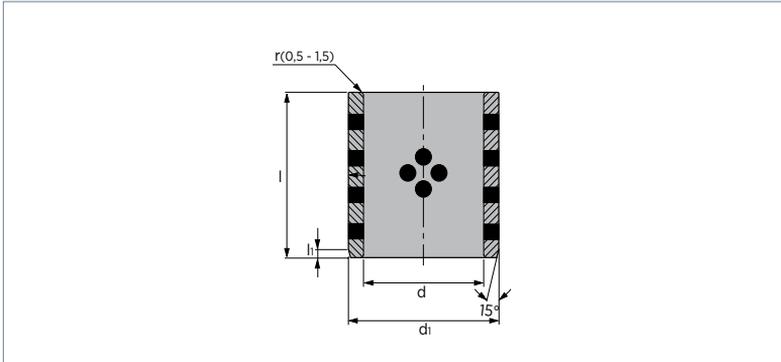
 Material :
 Bronze + Graphite
 Hardened
 HB ≥ 190


CODE	d G7	l -0,2 / -0,5	h -0,05	l ₂	d ₁ d8	d ₂ m6	d ₃
G211-06-020-032	20	32	4	3	28	28	32
G211-06-025-040	25	40	5	5	35	35	40
G211-06-032-050	32	50	6	8	44	44	50
G211-06-040-063	40	63	8	8	52	52	60
G211-06-050-080	50	80	10	8	63	63	71
G211-06-063-100	63	100	12	10	80	80	90
G211-06-080-125	80	125	16	10	100	100	112
G211-06-100-160	100	160	20	10	125	125	140

Order Example:

d= 80, l= 125

Order Code: G211-06-080-125


 Material :
 Bronze + Graphite

 Hardened
 HB ≥ 190

d F7	di m6	l -0,1 / -0,3																		h	
8	12	8	10	12	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,5	
10	14	8	10	12	15	-	-	20	-	-	-	-	-	-	-	-	-	-	-	0,5	
12	18	8	10	12	15	16	19	20	25	30	-	-	-	-	-	-	-	-	-	0,5	
16	22	-	10	12	15	16	19	20	25	30	35	40	-	-	-	-	-	-	-	0,5	
18	24	-	10	12	15	16	-	20	25	30	35	40	-	-	-	-	-	-	-	0,5	
20	28	-	10	12	15	16	19	20	25	30	35	40	50	-	-	-	-	-	-	0,5	
20	30	-	10	12	15	16	-	20	25	30	35	40	-	-	70	-	-	-	-	0,5	
25	33	-	-	12	15	16	-	20	25	30	35	40	50	60	-	-	-	-	-	0,5	
25	35	-	-	12	15	16	-	20	25	30	35	40	50	-	-	-	-	-	-	0,5	
30	38	-	-	12	15	-	-	20	25	30	35	40	50	60	-	-	-	-	-	1	
30	40	-	-	12	15	-	-	20	25	30	35	40	50	60	-	-	-	-	-	1	
35	44	-	-	-	-	-	-	20	25	30	35	40	50	60	-	-	-	-	-	1	
35	45	-	-	-	15	-	-	20	25	30	35	40	50	60	-	-	-	-	-	1	
40	50	-	-	-	15	-	-	20	25	30	35	40	50	60	70	80	-	-	-	1	
40	55	-	-	-	15	-	-	-	25	30	35	40	50	60	-	-	-	-	-	1	
50	60	-	-	-	-	-	-	20	25	30	35	40	50	60	70	80	-	-	-	1	
50	62	-	-	-	-	-	-	-	-	30	35	40	50	60	70	80	-	-	-	1	
50	65	-	-	-	-	-	-	-	-	30	-	40	50	60	70	80	-	100	-	1	
60	75	-	-	-	-	-	-	-	-	30	35	40	50	60	70	80	-	100	-	1	
70	85	-	-	-	-	-	-	-	-	30	35	40	50	60	70	80	-	100	-	1	
80	96	-	-	-	-	-	-	20	-	-	-	40	50	60	70	80	-	100	120	1	
80	100	-	-	-	-	-	-	-	-	-	-	40	50	60	70	80	-	100	120	140	1
100	120	-	-	-	-	-	-	-	-	-	-	40	50	60	70	80	90	100	120	140	1,5
100	130	-	-	-	-	-	-	-	-	-	-	-	50	-	70	80	-	100	120	-	1,5
110	130	-	-	-	-	-	-	-	-	-	-	-	50	-	70	80	-	100	120	-	1,5
130	150	-	-	-	-	-	-	-	-	-	-	-	-	-	80	-	100	-	130	-	1,5

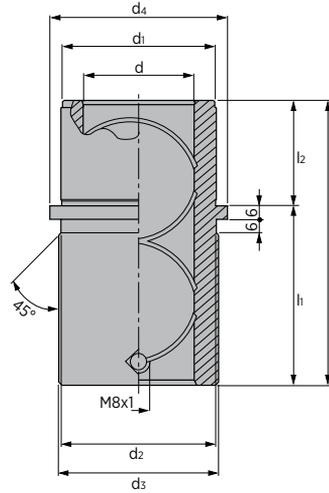
Order Example:

d= 25, di= 33, l= 50

Order Code: G212-01-025033050

2


 Material :
 Steel

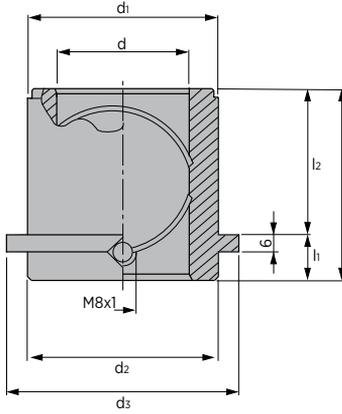
 Hardened
 HRC 58 ÷ 62


CODE	d H5	l	h ₁	l ₂	d ₁ j6	d ₂	d ₃	d ₄
G213-03-019-043	19	43	20	23	32	32	39	40
G213-03-019-059	19	59	36	23	32	32	39	40
G213-03-020-043	20	43	20	23	32	32	39	40
G213-03-020-059	20	59	36	23	32	32	39	40
G213-03-024-059	24	59	36	23	40	40	46	48
G213-03-024-079	24	79	56	23	40	40	46	48
G213-03-025-059	25	59	36	23	40	40	46	48
G213-03-025-079	25	79	56	23	40	40	46	48
G213-03-030-075	30	75	45	30	48	48	53	56
G213-03-030-093	30	93	63	30	48	48	53	56
G213-03-032-075	32	75	45	30	48	48	53	56
G213-03-032-093	32	93	63	30	48	48	53	56
G213-03-038-082	38	82	45	37	58	58	63	66
G213-03-038-108	38	108	71	37	58	58	63	66
G213-03-040-082	40	82	45	37	58	58	63	66
G213-03-040-108	40	108	71	37	58	58	63	66
G213-03-048-097	48	97	50	47	70	70	77	80
G213-03-048-127	48	127	80	47	70	70	77	80
G213-03-050-097	50	97	50	47	70	70	77	80
G213-03-050-127	50	127	80	47	70	70	77	80
G213-03-060-116	60	116	56	60	85	85	92	95
G213-03-060-150	60	150	90	60	85	85	92	95
G213-03-063-116	63	116	56	60	85	85	92	95
G213-03-063-150	63	150	90	60	85	85	92	95
G213-03-080-120	80	120	60	60	105	105	115	118
G213-03-080-150	80	150	90	60	105	105	115	118

Order Example:

d= 30, l= 75

Order Code: G213-03-030-075


 Material :
 Steel
 Hardened
 HRC 58 ÷ 62


CODE	d H5	l	h	l ₂	d ₁ j6	d ₂	d ₃
G213-04-019-035	19	35	12	23	32	32	40
G213-04-020-035	20	35	12	23	32	32	40
G213-04-024-035	24	35	12	23	40	40	48
G213-04-025-035	25	35	12	23	40	40	48
G213-04-030-042	30	42	12	30	48	48	56
G213-04-032-042	32	42	12	30	48	48	56
G213-04-038-052	38	52	15	37	58	58	66
G213-04-040-052	40	52	15	37	58	58	66
G213-04-048-065	48	65	18	47	70	70	80
G213-04-050-065	50	65	18	47	70	70	80
G213-04-060-080	60	80	20	60	85	85	95
G213-04-063-080	63	80	20	60	85	85	95
G213-04-080-080	80	80	20	60	105	105	118

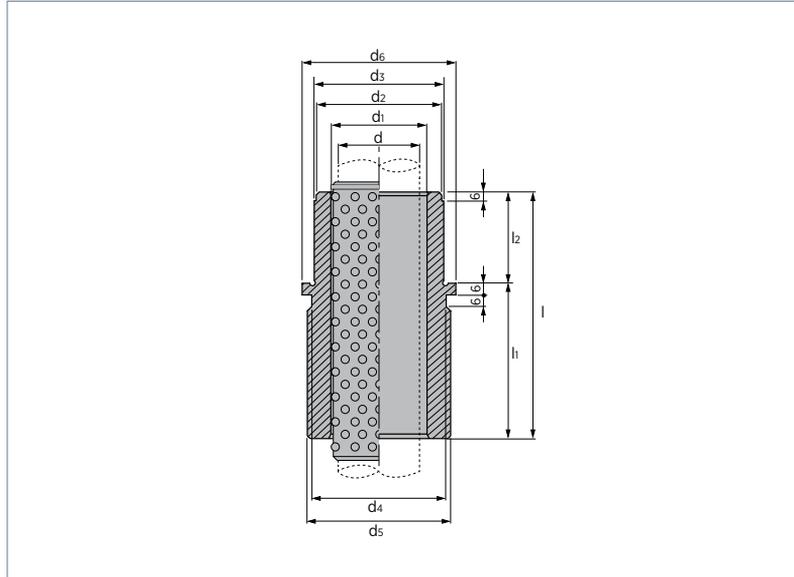
Order Example:

d= 20, l= 35

Order Code: G213-04-020-035

2


 Material :
 Steel

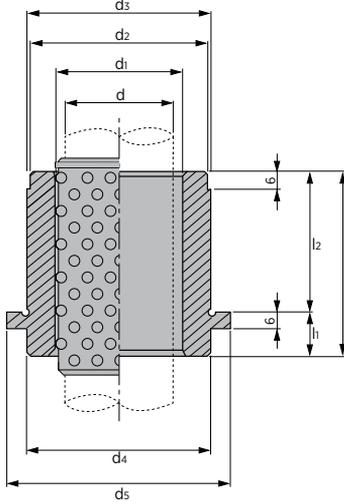
 Hardened
 HRC 58 ÷ 62


CODE	d	l -0,2	h ₁	l ₂ -0,2	d ₁ H4	d ₂ f7	d ₃ j6	d ₄	d ₅ ±0,2	d ₆
G215-01-019-043	19	43	20	23	25	32	32	32	39	40
G215-01-019-059	19	59	36	23	25	32	32	32	39	40
G215-01-020-043	20	43	20	23	26	32	32	32	39	40
G215-01-020-059	20	59	36	23	26	32	32	32	39	40
G215-01-024-059	24	59	36	23	30	40	40	40	46	48
G215-01-024-079	24	79	56	23	30	40	40	40	46	48
G215-01-025-059	25	59	36	23	31	40	40	40	46	48
G215-01-025-079	25	79	56	23	31	40	40	40	46	48
G215-01-030-075	30	75	45	30	38	48	48	48	53	56
G215-01-030-093	30	93	63	30	38	48	48	48	53	56
G215-01-032-075	32	75	45	30	40	48	48	48	53	56
G215-01-032-093	32	93	63	30	40	48	48	48	53	56
G215-01-038-082	38	82	45	37	46	58	58	58	63	66
G215-01-038-108	38	108	71	37	46	58	58	58	63	66
G215-01-040-082	40	82	45	37	48	58	58	58	63	66
G215-01-040-108	40	108	71	37	48	58	58	58	63	66
G215-01-048-097	48	97	50	47	56	70	70	70	77	80
G215-01-048-127	48	127	80	47	56	70	70	70	77	80
G215-01-050-097	50	97	50	47	58	70	70	70	77	80
G215-01-050-127	50	127	80	47	58	70	70	70	77	80
G215-01-060-116	60	116	56	60	68	85	85	85	92	95
G215-01-060-150	60	150	90	60	68	85	85	85	92	95
G215-01-063-116	63	116	56	60	71	85	85	85	92	95
G215-01-063-150	63	150	90	60	71	85	85	85	92	95
G215-01-080-120	80	120	60	60	92	105	105	105	115	118
G215-01-080-150	80	150	90	60	92	105	105	105	115	118

Order Example:

d= 19, l= 43

Order Code: G215-01-019-043


 Material :
 Steel
 Hardened
 HRC 58 ÷ 62

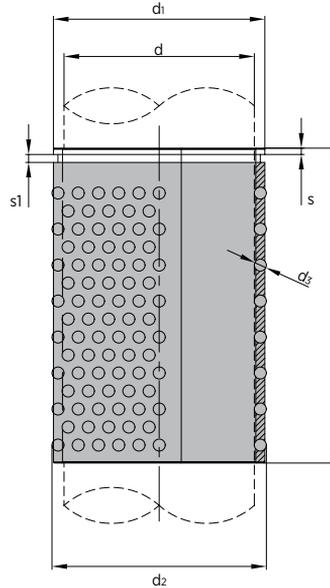

CODE	d	l -0,2	h ₁	l ₂ -0,2	d ₁ H4	d ₂ f7	d ₃ j6	d ₄	d ₅ ±0,2
G215-02-019-035	19	35	12	23	25	32	32	32	40
G215-02-020-035	20	35	12	23	26	32	32	32	40
G215-02-024-035	24	35	12	23	30	40	40	40	48
G215-02-025-035	25	35	12	23	31	40	40	40	48
G215-02-030-042	30	42	12	30	38	48	48	48	56
G215-02-032-042	32	42	12	30	40	48	48	48	56
G215-02-038-052	38	52	15	37	46	58	58	58	66
G215-02-040-052	40	52	15	37	48	58	58	58	66
G215-02-048-065	48	65	18	47	56	70	70	70	80
G215-02-050-065	50	65	18	47	58	70	70	70	80
G215-02-060-080	60	80	20	60	68	85	85	85	95
G215-02-063-080	63	80	20	60	71	85	85	85	95
G215-02-080-080	80	80	20	60	92	105	105	105	118

Order Example:

d= 20, l= 35

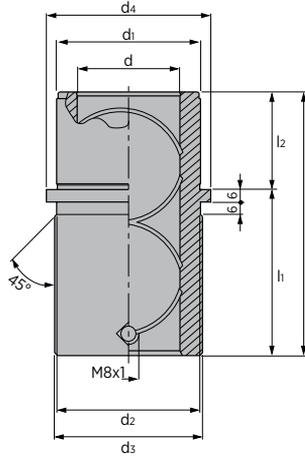
Order Code: G215-02-020-035

2

 Material :
 Bushes: SnBz10
 Ball: 100Cr6


d	l												d ₁	d ₂	d ₃	s	s ₁
19	45	56	71	80	95	-	-	-	-	-	-	-	24	25	3	1,6	1,3
20	45	56	71	80	95	-	-	-	-	-	-	-	25	26	3	1,6	1,3
24	45	56	71	80	95	105	120	140	-	-	-	-	29	30	3	1,6	1,6
25	45	56	71	80	95	105	120	140	-	-	-	-	30	31	3	1,6	1,6
30	45	56	71	80	95	105	120	140	-	-	-	-	37	38	4	2,1	1,85
32	45	56	71	80	95	105	120	140	-	-	-	-	39	40	4	2,1	1,85
38	-	56	71	80	95	105	120	140	160	-	-	-	45	46	4	2,1	1,85
40	-	56	71	80	95	105	120	140	160	-	-	-	47	48	4	2,1	1,85
48	-	-	71	80	95	105	120	140	160	-	-	-	55	56	4	2,1	2,15
50	-	-	71	80	95	105	120	140	160	-	-	-	57	58	4	2,1	2,15
60	-	-	-	80	95	105	120	140	160	180	200	240	67	68	4	2,1	2,65
63	-	-	-	80	95	105	120	140	160	180	200	240	70	71	4	2,1	2,65
80	-	-	-	-	-	-	120	140	160	180	200	240	90	92	6	3	3,15

Order Example:
d= 63, l= 120
Order Code: G216-01-063-120


 Material :
 Steel

 Hardened
 HRC 58 ÷ 62
 Bronze HB ≥ 190

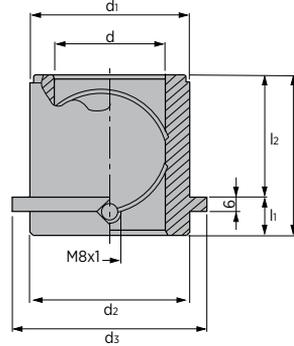
CODE	d H5	l	h	l ₂	d ₁ j6	d ₂	d ₃	d ₄
G217-01-019-043	19	43	20	23	32	32	39	40
G217-01-019-059	19	59	36	23	32	32	39	40
G217-01-020-043	20	43	20	23	32	32	39	40
G217-01-020-059	20	59	36	23	32	32	39	40
G217-01-024-059	24	59	36	23	40	40	46	48
G217-01-024-079	24	79	56	23	40	40	46	48
G217-01-025-059	25	59	36	23	40	40	46	48
G217-01-025-079	25	79	56	23	40	40	46	48
G217-01-030-075	30	75	45	30	48	48	53	56
G217-01-030-093	30	93	63	30	48	48	53	56
G217-01-032-075	32	75	45	30	48	48	53	56
G217-01-032-093	32	93	63	30	48	48	53	56
G217-01-038-082	38	82	45	37	58	58	63	66
G217-01-038-108	38	108	71	37	58	58	63	66
G217-01-040-082	40	82	45	37	58	58	63	66
G217-01-040-108	40	108	71	37	58	58	63	66
G217-01-048-097	48	97	50	47	70	70	77	80
G217-01-048-127	48	127	80	47	70	70	77	80
G217-01-050-097	50	97	50	47	70	70	77	80
G217-01-050-127	50	127	80	47	70	70	77	80
G217-01-060-116	60	116	56	60	85	85	92	95
G217-01-060-150	60	150	90	60	85	85	92	95
G217-01-063-116	63	116	56	60	85	85	92	95
G217-01-063-150	63	150	90	60	85	85	92	95
G217-01-080-120	80	120	60	60	105	105	115	118
G217-01-080-150	80	150	90	60	105	105	115	118

Order Example:

d=30, l=75

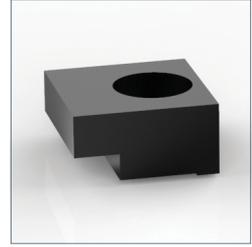
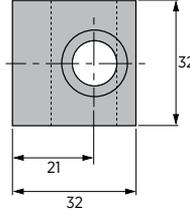
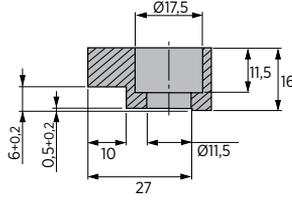
Order Code: G217-01-030-075

2

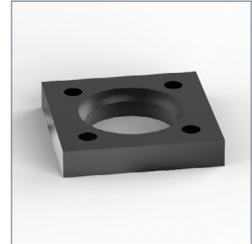
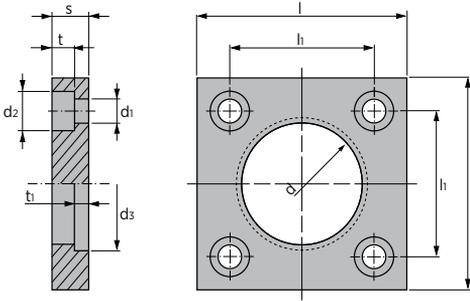

 Material :
 Steel
 Hardened
 HRC 58 ÷ 62
 Bronze HB ≥ 190


CODE	d H5	l	h	l ₂	d ₁ j6	d ₂	d _s
G217-02-019-035	19	35	12	23	32	32	40
G217-02-020-035	20	35	12	23	32	32	40
G217-02-024-035	24	35	12	23	40	40	48
G217-02-025-035	25	35	12	23	40	40	48
G217-02-030-042	30	42	12	30	48	48	56
G217-02-032-042	32	42	12	30	48	48	56
G217-02-038-052	38	52	15	37	58	58	66
G217-02-040-052	40	52	15	37	58	58	66
G217-02-048-065	48	65	18	47	70	70	80
G217-02-050-065	50	65	18	47	70	70	80
G217-02-060-080	60	80	20	60	85	85	95
G217-02-063-080	63	80	20	60	85	85	95
G217-02-080-080	80	80	20	60	105	105	118

Order Example:
d= 20, l= 35
Order Code: G217-02-020-035


 Material :
 CK45

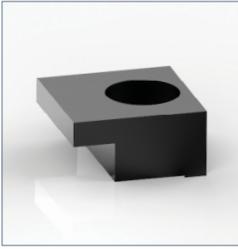
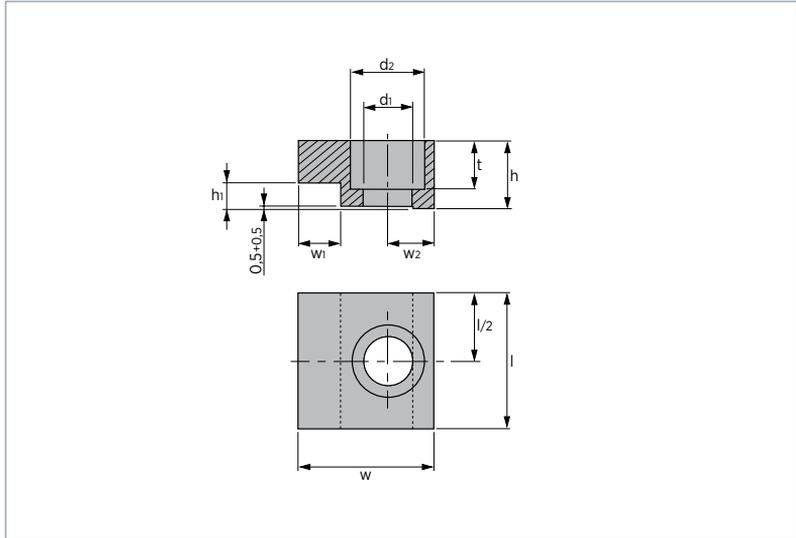

Screw not included.

CODE
A101-01-032-032

 Material :
 CK45

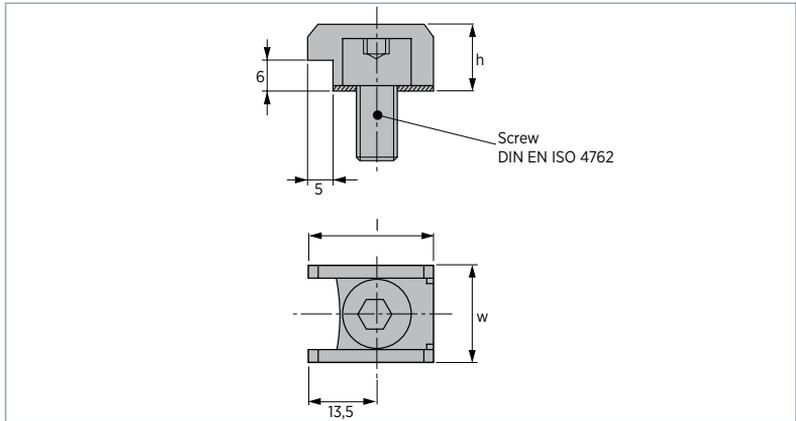

Screw not included.

CODE	d	s	l	h	d ₁	d ₂	d ₃	t	t ₁
A101-03-025	25	10	45	31	6,6	12	28	7	2,7
A101-03-032	32	10	56	36	6,6	12	37	7	4,2
A101-03-040	40	12	70	50	6,6	12	45	7	4,2
A101-03-050	50	14	80	55	9	16	55	9	4,2
A101-03-063	63	18	100	70	11	18	70	11	6,2
A101-03-080	80	20	110	80	13	22	87	14	6,2
A101-03-100	100	20	140	100	13	22	107	14	6,2

2


 Material :
 CK45
 Screw not included.


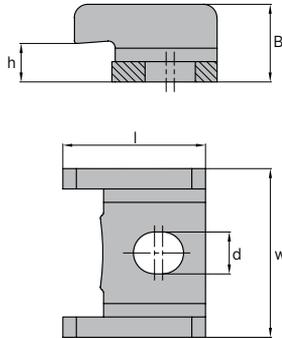
CODE	w	h	l -0,3	w1 +0,2	w2	h1 -0,3	d1 +0,2	d2 +0,2	t +0,2	Bushes Size
A101-04-020-020	20	10	20	5	7,5	6,3	7	11	7	Ø25-Ø50
A101-04-032-032	32	16	32	10	11	10	11,5	17,5	11,5	Ø63-Ø160


 Material :
 CK45
 Screw not included.


CODE	w	h	l	Screw
A101-05-189-246	18,9	13	24,6	M8x20
A101-05-235-279	23,5	15,5	27,9	M10x20


 Material :
 S235JRH


Screw not included.

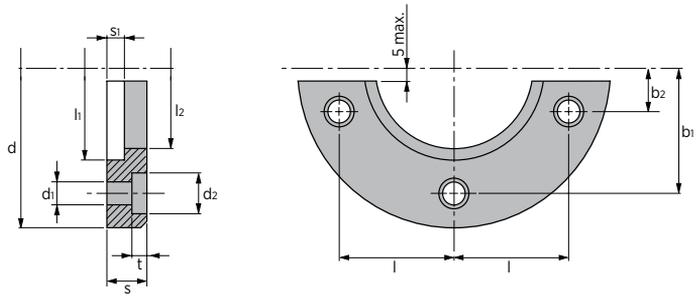


CODE	w	l	d	B	h	Bushes Size	Screw
A101-06-025021	25	21	6,2	11,5	5,7	Ø25 - Ø50	M6x15
A101-06-040032	40	32	10,2	19	9,3	Ø63 - Ø160	M10x20

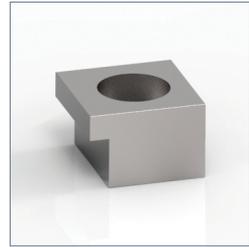
2

 Material :
 CK45

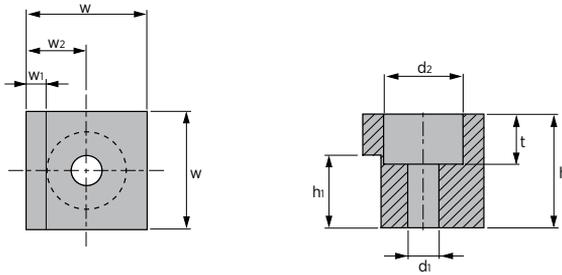

Screw not included.



CODE	d	s	l	h	l ₂	d ₁	d ₂	s ₁	b ₁	b ₂	t	Bushes Size
A101-08-025-020	72	10	20	41	32	6,6	12	5	-	20	7	25
A101-08-032-021	80	12	25	51	40	6,6	12	6	-	21	7	32
A101-08-040-014	100	12	38,5	61	50	6,6	12	8	41	14	7	40
A101-08-050-017	125	16	46	72	63	9	16	10	49	17	9	50
A101-08-063-017	140	20	55	91	80	11	18	12	57,5	17	11	63
A101-08-080-020	180	25	70	113	100	14	22	16	72	20	13	80
A101-08-100-025	200	32	81	141	125	14	22	20	85	25	13	100


 Material :
 CK45


Screw not included.

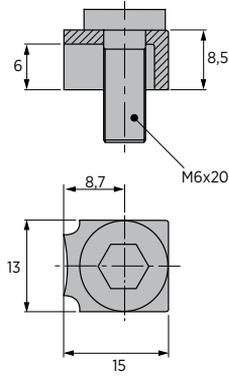


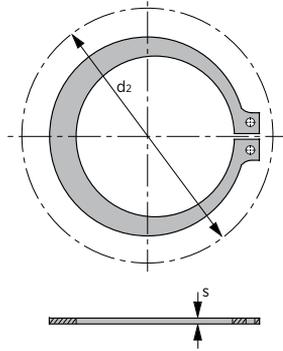
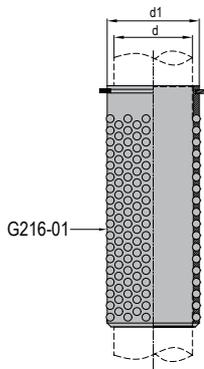
CODE	w	h	w ₁	w ₂	h ₁ +015 / +0,05	d ₁	d ₂	t
A101-09-040-018	18	12	3	9,5	8	6,6	11	6,8
A101-09-050-022	22	16	4	12	10	9	15	9
A101-09-063-026	26	20	5	15	12	11	18	11
A101-09-080-026	26	25	5	15	16	11	18	11
A101-09-100-026	26	32	5	15	20	11	18	11

2

 Material :
 St 37


Screw not included.


CODE
A101-10-013-015

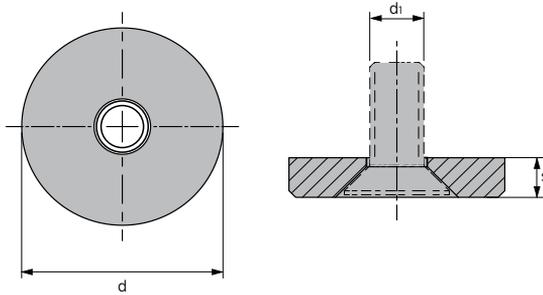

 Material :
 100Cr6


CODE	d	d ₁	d ₂	s
A101-11-019	19	24	33,2	1,2
A101-11-020	20	25	34,2	1,2
A101-11-024	24	29	39,1	1,5
A101-11-025	25	30	40,5	1,5
A101-11-030	30	37	49	1,75
A101-11-032	32	39	51,4	1,75
A101-11-038	38	45	59,1	1,75
A101-11-040	40	47	60,8	1,75
A101-11-048	48	55	70,2	2
A101-11-050	50	57	72,6	2
A101-11-060	60	67	83,1	2,5
A101-11-063	63	70	87	2,5
A101-11-080	80	90	108,5	3

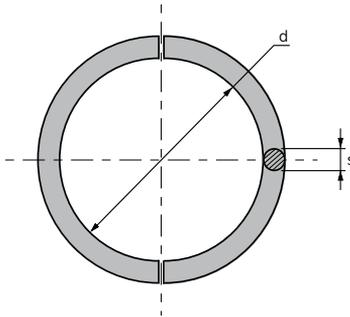
2

 Material :
 CK45


Screw not included.



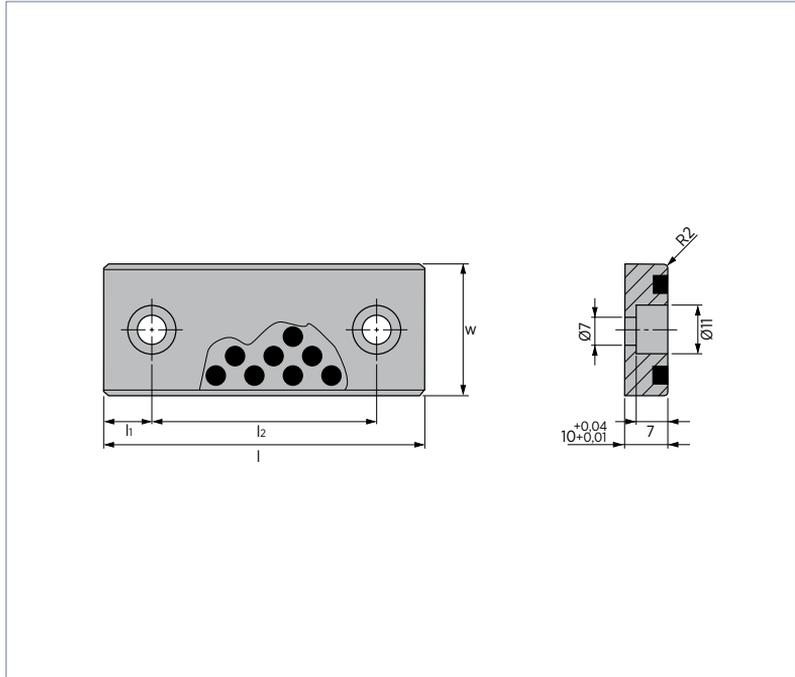
CODE	d	s	d ₁
A101-16-022	22	6	8
A101-16-025	25	6	8
A101-16-032	32	6	8
A101-16-040	40	6	8
A101-16-050	50	6	8
A101-16-060	60	6	8
A101-16-070	70	6	8
A101-16-093	93	12	12


 Material :
 CK45

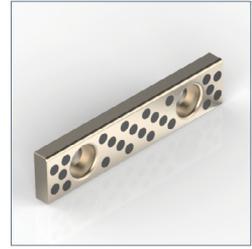
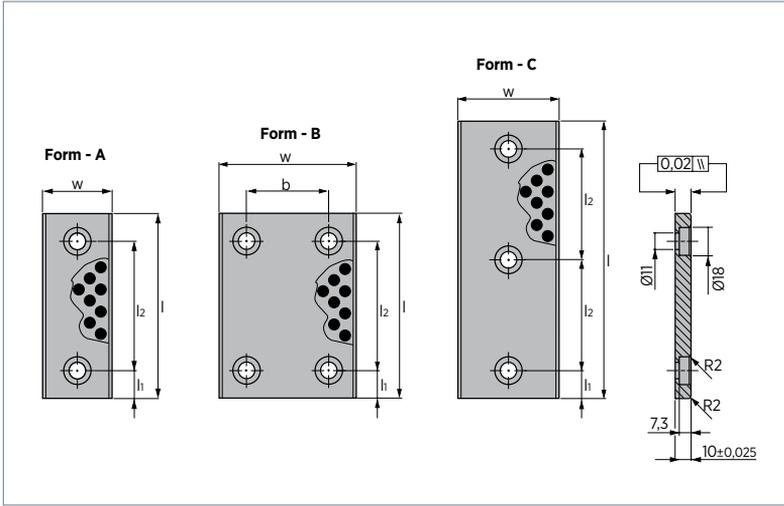

CODE	d	s h10	Guide Posts Size
A102-01-025	22,5	2,5	Ø25
A102-01-032	28	4	Ø32
A102-01-040	36	4	Ø40
A102-01-050	46	4	Ø50
A102-01-063	57	6	Ø63
A102-01-080	74	6	Ø80
A102-01-100	94	6	Ø100

2

 Material :
 Bronze + Graphite

 Hardness
 HB \geq 190


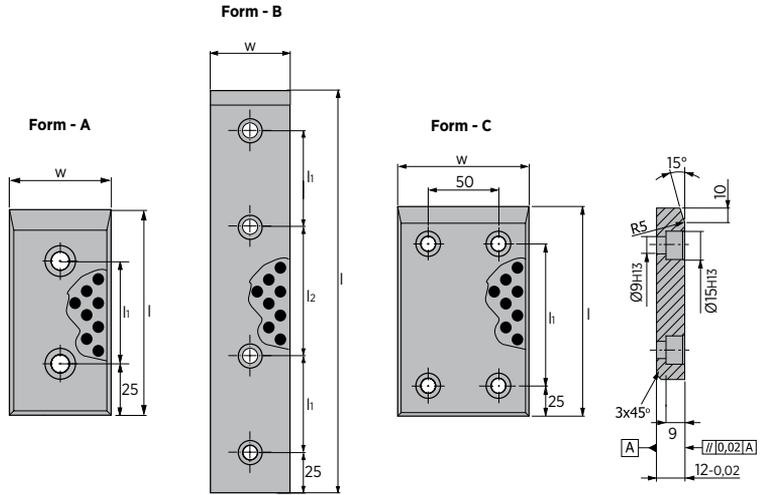
CODE	w	l	l ₁	l ₂
G220-01-018-075	18	75	15	45
G220-01-018-100	18	100	25	50
G220-01-018-125	18	125	25	75
G220-01-018-150	18	150	25	100
G220-01-028-075	28	75	15	45
G220-01-028-100	28	100	25	50
G220-01-028-125	28	125	25	75
G220-01-028-150	28	150	25	100
G220-01-038-075	38	75	15	45
G220-01-038-100	38	100	25	50
G220-01-038-125	38	125	25	75
G220-01-038-150	38	150	25	100
G220-01-048-075	48	75	15	45
G220-01-048-100	48	100	25	50
G220-01-048-125	48	125	25	75
G220-01-048-150	48	150	25	100


 Material :
 Bronze + Graphite

 Hardness
 HB ≥ 190

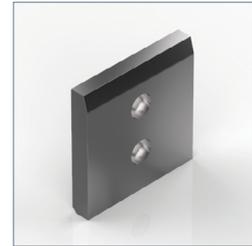
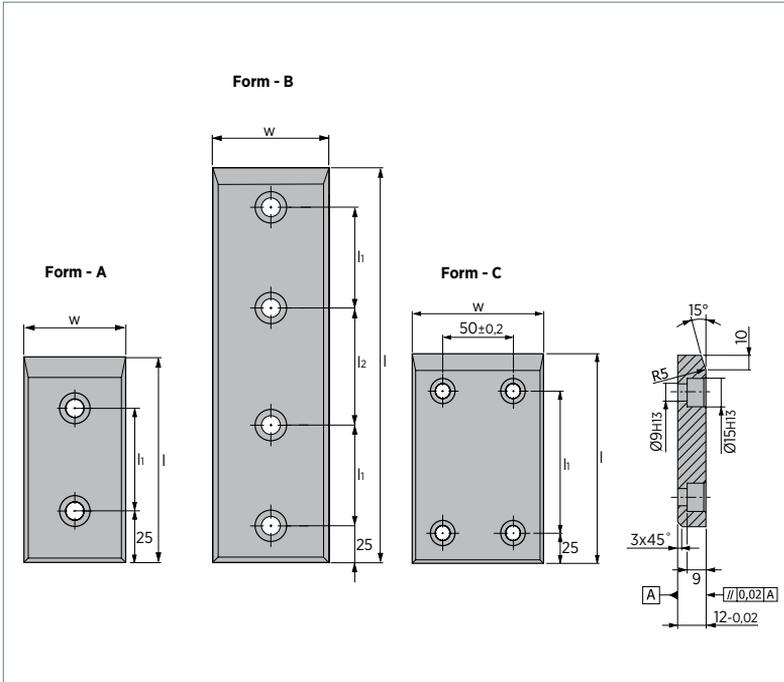
CODE	Form	w	l	h	lz	b
G220-03-028-075	A	28	75	15	45	-
G220-03-028-100	A	28	100	25	50	-
G220-03-028-125	A	28	125	25	75	-
G220-03-028-150	A	28	150	25	100	-
G220-03-038-075	A	38	75	15	45	-
G220-03-038-100	A	38	100	25	50	-
G220-03-038-125	A	38	125	25	75	-
G220-03-038-150	A	38	150	25	100	-
G220-03-048-075	A	48	75	15	45	-
G220-03-048-100	A	48	100	25	50	-
G220-03-048-125	A	48	125	25	75	-
G220-03-048-150	A	48	150	25	100	-
G220-03-048-200	A	48	200	50	100	-
G220-03-058-075	A	58	75	15	45	-
G220-03-058-100	A	58	100	25	50	-
G220-03-058-125	A	58	125	25	75	-
G220-03-058-150	A	58	150	25	100	-
G220-03-058-200	A	58	200	50	100	-
G220-03-075-075	A	75	75	15	45	-
G220-03-075-100	A	75	100	25	50	-
G220-03-075-125	A	75	125	25	75	-
G220-03-075-150	A	75	150	25	100	-
G220-03-075-200	C	75	200	25	75	-
G220-03-100-100	B	100	100	25	50	50
G220-03-100-125	B	100	125	25	75	50
G220-03-100-150	B	100	150	25	100	50
G220-03-100-200	B	100	200	25	150	50
G220-03-100-250	B	100	250	25	200	50
G220-03-125-150	B	125	150	25	100	50
G220-03-125-200	B	125	200	25	150	50
G220-03-125-250	B	125	250	25	200	50
G220-03-150-150	B	150	150	25	100	100
G220-03-150-200	B	150	200	25	150	100

2


 Material :
 Bronze + Graphite
 Hardness
 HB \approx 190


CODE	Form	w	l $\pm 0,2$	h ₁ $\pm 0,2$	h ₂ $\pm 0,2$
G222-01-030-080	A	30	80	30	-
G222-01-030-100	A	30	100	50	-
G222-01-030-125	A	30	125	75	-
G222-01-030-160	A	30	160	110	-
G222-01-030-200	A	30	200	150	-
G222-01-040-080	A	40	80	30	-
G222-01-040-100	A	40	100	50	-
G222-01-040-125	A	40	125	75	-
G222-01-040-160	A	40	160	110	-
G222-01-040-200	A	40	200	150	-
G222-01-050-080	A	50	80	30	-
G222-01-050-100	A	50	100	50	-
G222-01-050-125	A	50	125	75	-
G222-01-050-160	A	50	160	110	-
G222-01-050-180	A	50	180	130	-
G222-01-050-200	A	50	200	150	-
G222-01-050-250	B	50	250	60	80
G222-01-050-300	B	50	300	80	90

CODE	Form	w	l $\pm 0,2$	h ₁ $\pm 0,2$	h ₂ $\pm 0,2$
G222-01-050-350	B	50	350	100	100
G222-01-050-400	B	50	400	120	110
G222-01-060-080	A	60	80	30	-
G222-01-060-100	A	60	100	50	-
G222-01-060-125	A	60	125	75	-
G222-01-060-160	A	60	160	110	-
G222-01-060-180	A	60	180	130	-
G222-01-060-200	A	60	200	150	-
G222-01-080-080	A	80	80	30	-
G222-01-080-100	A	80	100	50	-
G222-01-080-125	A	80	125	75	-
G222-01-080-160	A	80	160	110	-
G222-01-080-200	A	80	200	150	-
G222-01-100-125	C	100	125	75	-
G222-01-100-160	C	100	160	110	-
G222-01-100-200	C	100	200	150	-
G222-01-100-225	C	100	225	175	-
G222-01-100-250	C	100	250	200	-



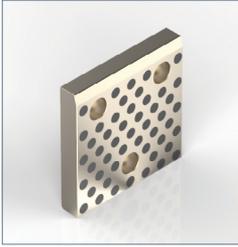
Material :
16MnCr5

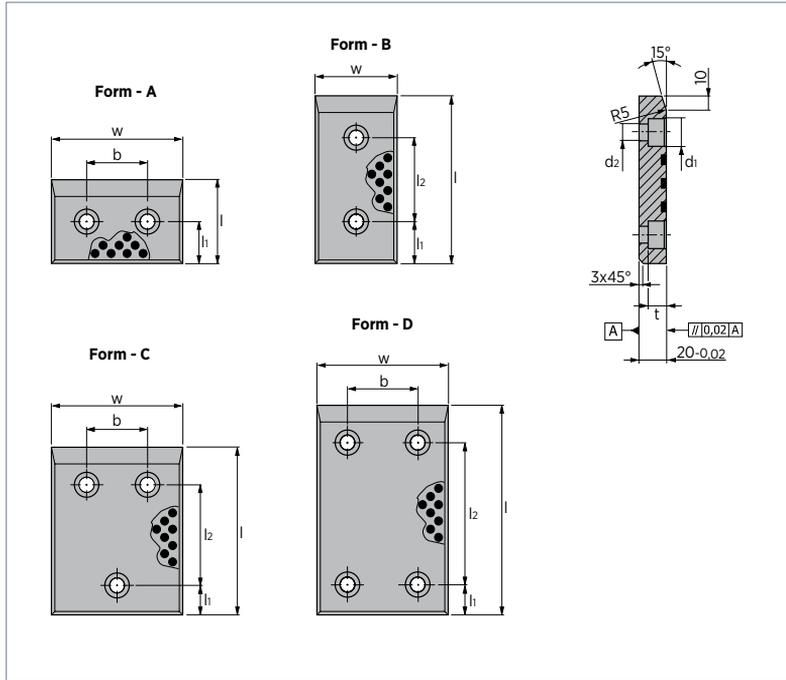
Surface Hardened
HRC 60 ± 64

CODE	Form	w	l ±0,2	h ±0,2	l ₂ ±0,2
G223-01-030-080	A	30	80	30	-
G223-01-030-100	A	30	100	50	-
G223-01-030-125	A	30	125	75	-
G223-01-030-160	A	30	160	110	-
G223-01-030-200	A	30	200	150	-
G223-01-040-080	A	40	80	30	-
G223-01-040-100	A	40	100	50	-
G223-01-040-125	A	40	125	75	-
G223-01-040-160	A	40	160	110	-
G223-01-040-200	A	40	200	150	-
G223-01-050-080	A	50	80	30	-
G223-01-050-100	A	50	100	50	-
G223-01-050-125	A	50	125	75	-
G223-01-050-160	A	50	160	110	-
G223-01-050-180	A	50	180	130	-
G223-01-050-200	A	50	200	150	-
G223-01-050-250	B	50	250	60	80
G223-01-050-300	B	50	300	80	90

CODE	Form	w	l ±0,2	h ±0,2	l ₂ ±0,2
G223-01-050-350	B	50	350	100	100
G223-01-050-400	B	50	400	120	110
G223-01-060-080	A	60	80	30	-
G223-01-060-100	A	60	100	50	-
G223-01-060-125	A	60	125	75	-
G223-01-060-160	A	60	160	110	-
G223-01-060-180	A	60	180	130	-
G223-01-060-200	A	60	200	150	-
G223-01-080-080	A	80	80	30	-
G223-01-080-100	A	80	100	50	-
G223-01-080-125	A	80	125	75	-
G223-01-080-160	A	80	160	110	-
G223-01-080-200	A	80	200	150	-
G223-01-100-125	C	100	125	75	-
G223-01-100-160	C	100	160	110	-
G223-01-100-200	C	100	200	150	-
G223-01-100-225	C	100	225	175	-
G223-01-100-250	C	100	250	200	-

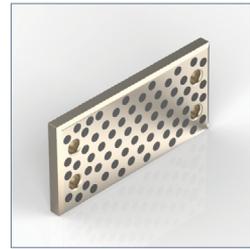
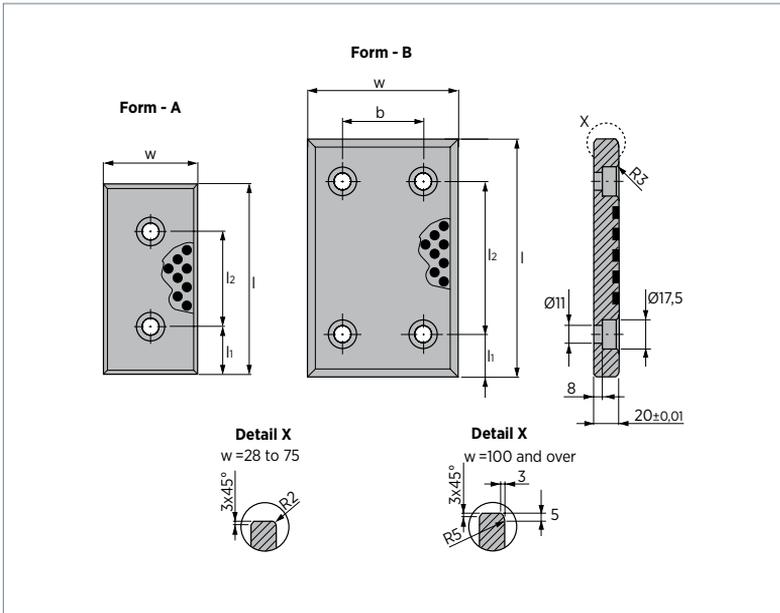
2


 Material :
 Bronze + Graphite

 Hardness
 HB \geq 190


CODE	Form	w	l $\pm 0,2$	h $\pm 0,2$	l ₂ $\pm 0,2$	d ₁ H13	d ₂ H13	b $\pm 0,2$	t
G224-01-050-080	B	50	80	25	30	15	9	-	9
G224-01-050-100	B	50	100	25	50	20	13,5	-	13
G224-01-050-125	B	50	125	25	75	20	13,5	-	13
G224-01-050-160	B	50	160	25	110	20	13,5	-	13
G224-01-050-200	B	50	200	25	150	20	13,5	-	13
G224-01-080-050	A	80	50	25	-	15	9	30	9
G224-01-080-080	B	80	80	25	30	20	13,5	-	13
G224-01-080-100	B	80	100	25	50	20	13,5	-	13
G224-01-080-125	B	80	125	25	75	20	13,5	-	13
G224-01-080-160	B	80	160	25	110	20	13,5	-	13
G224-01-080-200	B	80	200	25	150	20	13,5	-	13
G224-01-080-250	B	80	250	40	170	20	13,5	-	13
G224-01-080-315	B	80	315	40	235	20	13,5	-	13
G224-01-100-050	A	100	50	25	-	20	13,5	50	13
G224-01-100-080	A	100	80	40	-	20	13,5	50	13
G224-01-100-100	B	100	100	25	50	20	13,5	-	13
G224-01-100-125	B	100	125	25	75	20	13,5	-	13
G224-01-100-160	B	100	160	25	110	20	13,5	-	13
G224-01-100-200	B	100	200	25	150	20	13,5	-	13
G224-01-100-250	B	100	250	40	170	20	13,5	-	13
G224-01-100-315	B	100	315	40	235	20	13,5	-	13

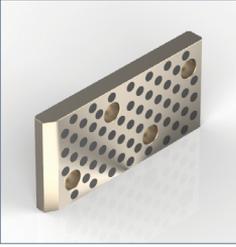
CODE	Form	w	l $\pm 0,2$	h $\pm 0,2$	l ₂ $\pm 0,2$	d ₁ H13	d ₂ H13	b $\pm 0,2$	t
G224-01-125-050	A	125	50	25	-	20	13,5	75	13
G224-01-125-080	A	125	80	40	-	20	13,5	75	13
G224-01-125-100	C	125	100	25	50	20	13,5	75	13
G224-01-125-125	C	125	125	25	75	20	13,5	75	13
G224-01-125-160	C	125	160	25	110	20	13,5	75	13
G224-01-125-200	C	125	200	25	150	20	13,5	75	13
G224-01-125-250	C	125	250	40	170	20	13,5	75	13
G224-01-125-315	C	125	315	40	235	20	13,5	75	13
G224-01-160-050	A	160	50	25	-	20	13,5	110	13
G224-01-160-080	A	160	80	40	-	20	13,5	110	13
G224-01-160-100	C	160	100	25	50	20	13,5	110	13
G224-01-160-125	C	160	125	25	75	20	13,5	110	13
G224-01-160-160	C	160	160	25	110	20	13,5	110	13
G224-01-160-200	C	160	200	25	150	20	13,5	110	13
G224-01-160-250	D	160	250	40	170	20	13,5	110	13
G224-01-160-315	D	160	315	40	235	20	13,5	110	13
G224-01-160-2501	C	160	250	40	170	20	13,5	110	13
G224-01-160-3151	C	160	315	40	235	20	13,5	110	13

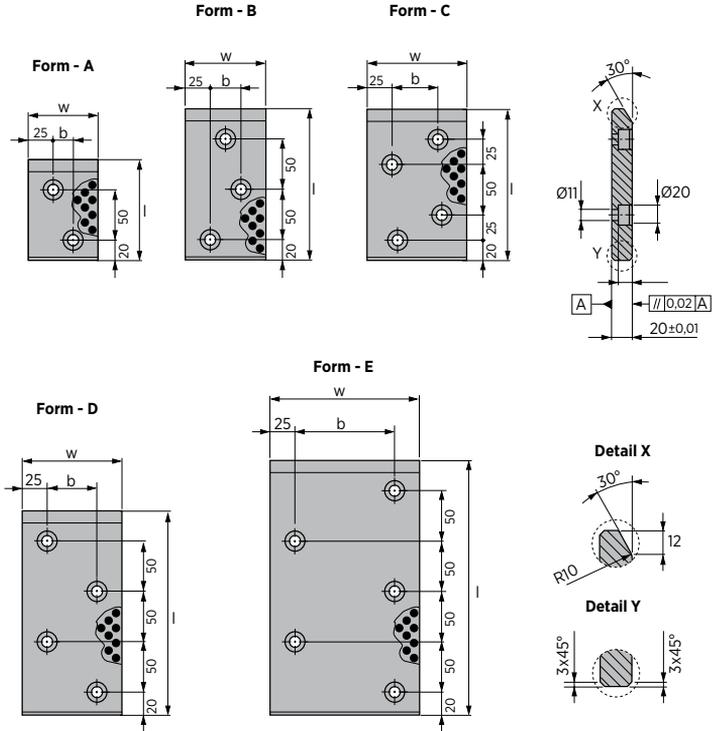

 Material :
 Bronze + Graphite
 Hardness
 HB ≥ 190


2

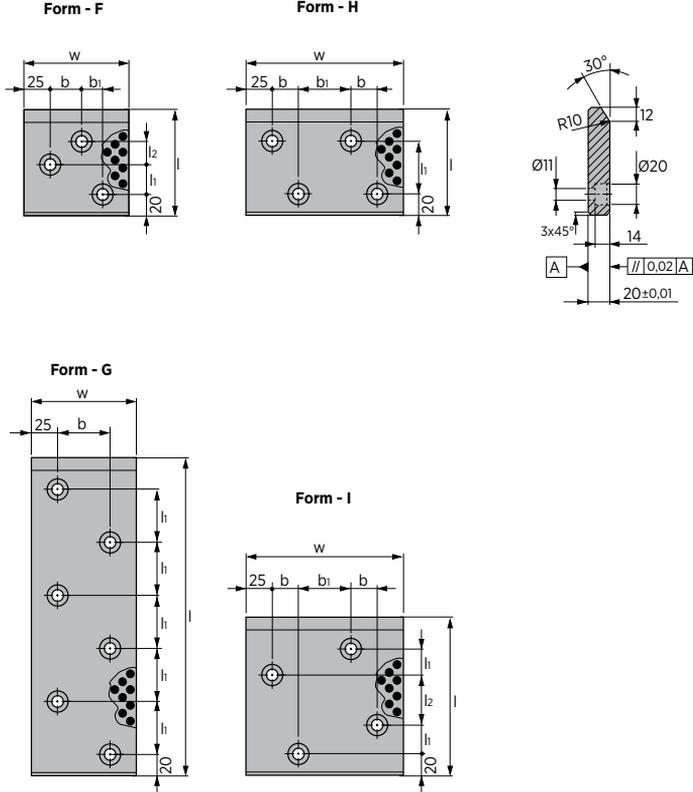
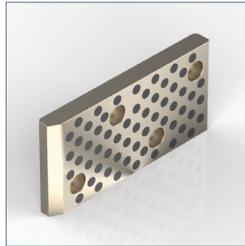
CODE	Form	w -0,1/-0,3	l -0,1/-0,3	h	l ₂ ±0,2	b
G224-02-028-075	A	28	75	15	45	-
G224-02-028-100	A	28	100	25	50	-
G224-02-028-150	A	28	150	25	100	-
G224-02-038-075	A	38	75	15	45	-
G224-02-038-100	A	38	100	25	50	-
G224-02-038-150	A	38	150	25	100	-
G224-02-038-200	A	38	200	25	150	-
G224-02-048-075	A	48	75	15	45	-
G224-02-048-100	A	48	100	25	50	-
G224-02-048-125	A	48	125	25	75	-
G224-02-048-150	A	48	150	25	100	-
G224-02-048-200	A	48	200	25	150	-
G224-02-058-075	A	58	75	15	45	-
G224-02-058-100	A	58	100	25	50	-
G224-02-058-150	A	58	150	25	100	-
G224-02-075-075	A	75	75	15	45	-
G224-02-075-100	A	75	100	25	50	-
G224-02-075-125	A	75	125	25	75	-
G224-02-075-150	A	75	150	25	100	-
G224-02-075-200	A	75	200	25	150	-

CODE	Form	w -0,1/-0,3	l -0,1/-0,3	h	l ₂ ±0,2	b
G224-02-100-100	B	100	100	25	50	50
G224-02-100-125	B	100	125	25	75	50
G224-02-100-150	B	100	150	25	100	50
G224-02-100-200	B	100	200	25	150	50
G224-02-100-250	B	100	250	25	200	50
G224-02-100-300	B	100	300	25	250	50
G224-02-125-125	B	125	125	25	75	50
G224-02-125-150	B	125	150	25	100	50
G224-02-125-200	B	125	200	25	150	50
G224-02-125-250	B	125	250	25	200	50
G224-02-125-300	B	125	300	25	250	50
G224-02-125-350	B	125	350	25	300	50
G224-02-150-150	B	150	150	25	100	100
G224-02-150-200	B	150	200	25	150	100
G224-02-150-250	B	150	250	25	200	100
G224-02-150-300	B	150	300	25	250	100
G224-02-150-350	B	150	350	25	300	100
G224-02-200-200	B	200	200	25	150	150
G224-02-200-250	B	200	250	25	200	150
G224-02-200-300	B	200	300	25	250	150
G224-02-200-350	B	200	350	25	300	150

2

 Material :
 Bronze + Graphite

 Hardness
 HB \geq 190


CODE	Form	w -2	l ±0,1	b ±0,1
G224-08-070-100	A	70	100	20
G224-08-070-150	B	70	150	20
G224-08-070-200	D	70	200	20
G224-08-100-150	C	100	150	50
G224-08-100-200	D	100	200	50
G224-08-100-250	E	100	250	50
G224-08-150-200	D	150	200	100
G224-08-150-250	E	150	250	100



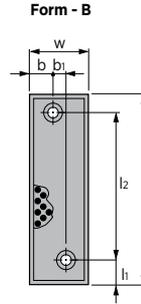
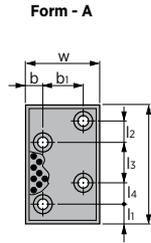
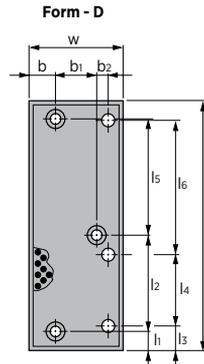
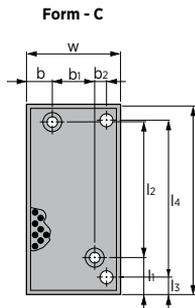
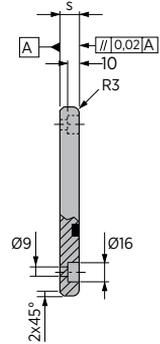
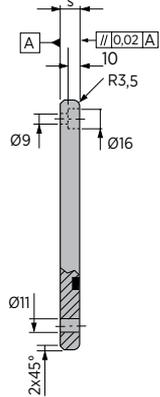
Material :
Bronze + Graphite

Hardness
HB \geq 190

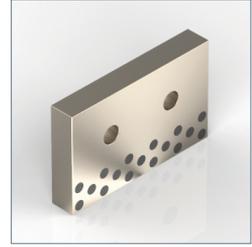
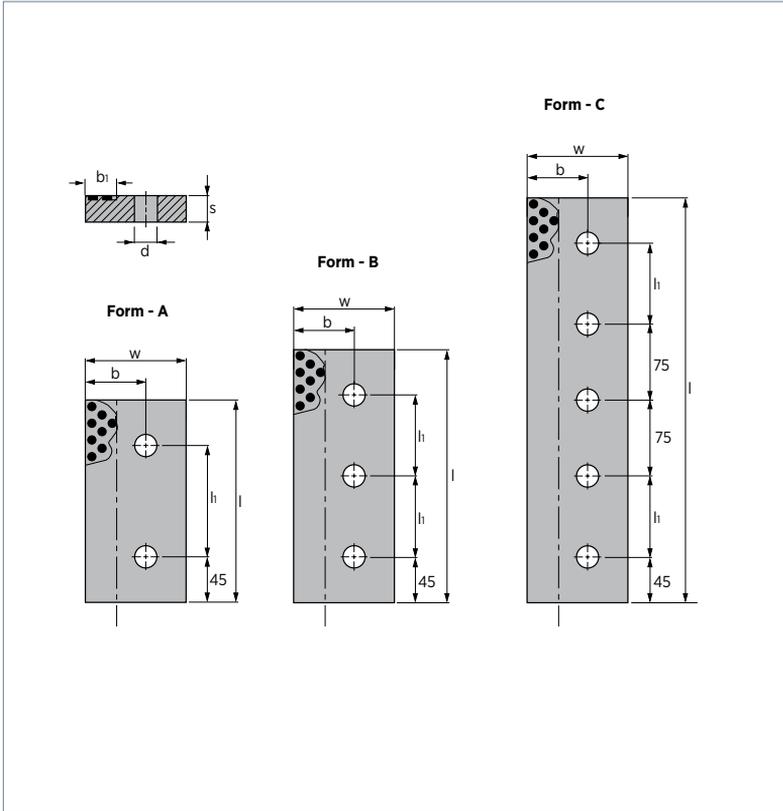
CODE	Form	w -2	l $\pm 0,1$	h $\pm 0,1$	l ₂ $\pm 0,1$	b $\pm 0,1$	b ₁ $\pm 0,1$
G224-08-100-100	F	100	100	25	25	30	20
G224-08-100-300	G	100	300	50	-	50	-
G224-08-150-100	H	150	100	50	-	25	50
G224-08-150-150	I	150	150	25	50	25	50
G224-08-150-300	G	150	300	50	-	100	-
G224-08-200-100	H	200	100	50	-	50	50

2

 Material :
 Bronze + Graphite

 Hardness
 HB \geq 190

Form - A, B

Form - C, D


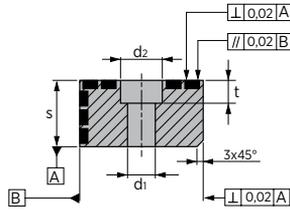
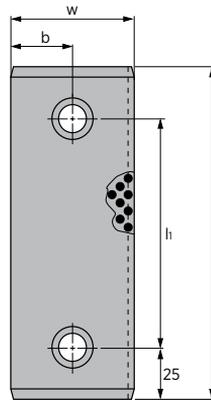
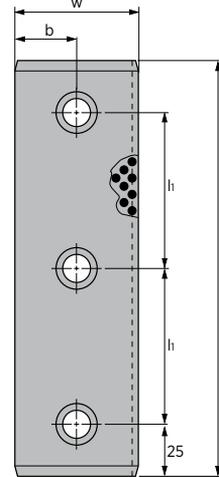
CODE	Form	w	s	l	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	b	b ₁	b ₂
G224-09-050-063	B	50	16+0,05	63	12	39	-	-	-	-	15	20	-
G224-09-050-160	B	50	16+0,01	160	21	126	-	-	-	-	19	12	-
G224-09-050-250	D	50	16+0,01	250	21	100	-	-	-	-	19	12	-
G224-09-063-100	A	63	16+0,05	100	15	18	34	18	-	-	12	39	-
G224-09-080-160	C	80	16+0,01	160	31	116	15	130	-	-	22	36	10
G224-09-080-250	D	80	16+0,01	250	21	100	25	80	116	130	22	36	10


 Material :
 Bronze + Graphite
 Hardness
 HB \geq 190

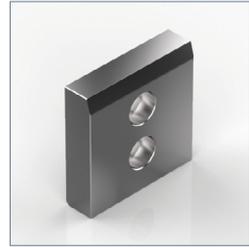
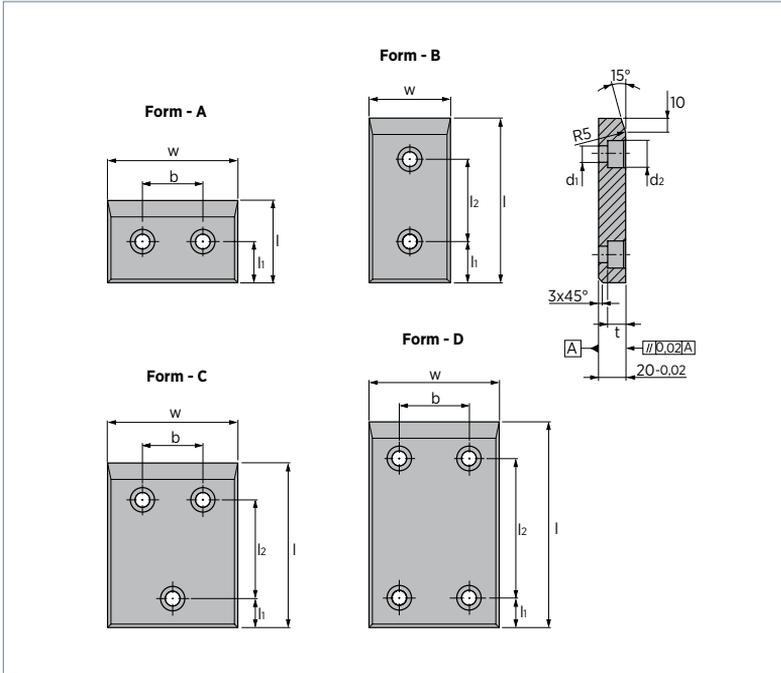

CODE	Form	w	s	l	h $\pm 0,2$	b	b ₁	d H13
G224-11-075-160	A	75	25	160	70	40	25	17,5
G224-11-075-200	A	75	25	200	110	40	25	17,5
G224-11-075-250	B	75	25	250	80	40	25	17,5
G224-11-100-160	A	100	25	160	70	60	30	17,5
G224-11-100-200	A	100	25	200	110	60	30	17,5
G224-11-100-250	B	100	25	250	80	60	30	17,5
G224-11-100-400	C	100	25	400	80	60	30	17,5
G224-11-100-1601	A	100	30	160	70	60	30	22
G224-11-100-2001	A	100	30	200	110	60	30	22
G224-11-100-2501	B	100	30	250	80	60	30	22
G224-11-100-4001	C	100	30	400	80	60	30	22
G224-11-125-160	A	125	30	160	70	75	30	22
G224-11-125-200	A	125	30	200	110	75	30	22
G224-11-125-250	B	125	30	250	80	75	30	22
G224-11-125-400	C	125	30	400	80	75	30	22

2


 Material :
 Bronze + Graphite

 Hardness
 HB \approx 190

Form - A

Form - B


CODE	Form	w -0,02	s -0,02	l	h ₁	b	d ₁ H13	d ₂ H13	t
G224-12-012-110	A	25	12	110	60	12,5	9	15	9
G224-12-012-120	A	25	12	120	70	12,5	9	15	9
G224-12-015-110	A	25	15	110	60	12,5	11	18	11
G224-12-015-120	A	25	15	120	70	12,5	11	18	11
G224-12-030-125	A	60	30	125	75	30	13,5	20	13
G224-12-030-160	A	60	30	160	110	30	13,5	20	13
G224-12-030-200	B	60	30	200	75	30	13,5	20	13
G224-12-040-125	A	60	40	125	75	30	13,5	20	13
G224-12-040-160	A	60	40	160	110	30	13,5	20	13
G224-12-040-200	B	60	40	200	75	30	13,5	20	13


 Material :
 16MnCr5
 Surface Hardened
 HRC 60 ÷ 64

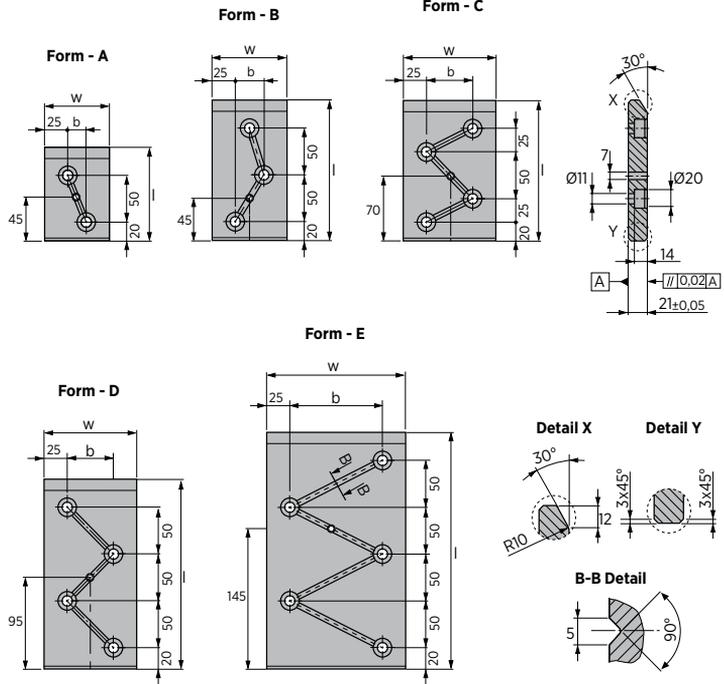

2

CODE	Form	w	l ±0,2	h ±0,2	l ₂ ±0,2	b ±0,2	d ₁ H13	d ₂ H13	t
G225-01-050-080	B	50	80	25	30	-	9	15	9
G225-01-050-100	B	50	100	25	50	-	13,5	20	13
G225-01-050-125	B	50	125	25	75	-	13,5	20	13
G225-01-050-160	B	50	160	25	110	-	13,5	20	13
G225-01-050-200	B	50	200	25	150	-	13,5	20	13
G225-01-080-050	A	80	50	25	-	30	9	15	9
G225-01-080-080	B	80	80	25	30	-	13,5	20	13
G225-01-080-100	B	80	100	25	50	-	13,5	20	13
G225-01-080-125	B	80	125	25	75	-	13,5	20	13
G225-01-080-160	B	80	160	25	110	-	13,5	20	13
G225-01-080-200	B	80	200	25	150	-	13,5	20	13
G225-01-080-250	B	80	250	40	170	-	13,5	20	13
G225-01-080-315	B	80	315	40	235	-	13,5	20	13
G225-01-100-050	A	100	50	25	-	50	13,5	20	13
G225-01-100-080	A	100	80	40	-	50	13,5	20	13
G225-01-100-100	B	100	100	25	50	-	13,5	20	13
G225-01-100-125	B	100	125	25	75	-	13,5	20	13
G225-01-100-160	B	100	160	25	110	-	13,5	20	13
G225-01-100-200	B	100	200	25	150	-	13,5	20	13
G225-01-100-250	B	100	250	40	170	-	13,5	20	13
G225-01-100-315	B	100	315	40	235	-	13,5	20	13

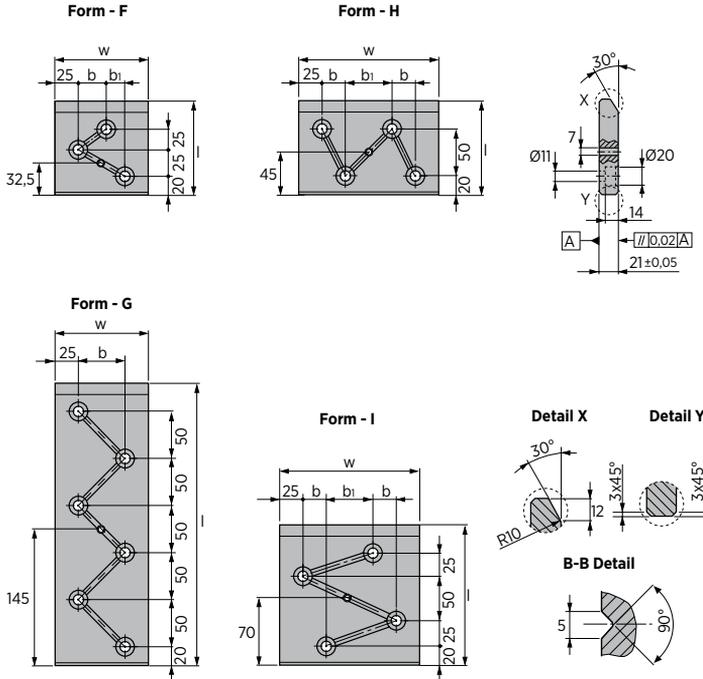
CODE	Form	w	l ±0,2	h ±0,2	l ₂ ±0,2	b ±0,2	d ₁ H13	d ₂ H13	t
G225-01-125-050	A	125	50	25	-	75	13,5	20	13
G225-01-125-080	A	125	80	40	-	75	13,5	20	13
G225-01-125-100	C	125	100	25	50	75	13,5	20	13
G225-01-125-125	C	125	125	25	75	75	13,5	20	13
G225-01-125-160	C	125	160	25	110	75	13,5	20	13
G225-01-125-200	C	125	200	25	150	75	13,5	20	13
G225-01-125-250	C	125	250	40	170	75	13,5	20	13
G225-01-125-315	C	125	315	40	235	75	13,5	20	13
G225-01-160-050	A	160	50	25	-	110	13,5	20	13
G225-01-160-080	A	160	80	40	-	110	13,5	20	13
G225-01-160-100	C	160	100	25	50	110	13,5	20	13
G225-01-160-125	C	160	125	25	75	110	13,5	20	13
G225-01-160-160	C	160	160	25	110	110	13,5	20	13
G225-01-160-200	C	160	200	25	150	110	13,5	20	13
G225-01-160-250	D	160	250	40	170	110	13,5	20	13
G225-01-160-315	D	160	315	40	235	110	13,5	20	13
G225-01-160-2501	C	160	250	40	170	110	13,5	20	13
G225-01-160-3151	C	160	315	40	235	110	13,5	20	13

2

 Material :
 16MnCr5

 Surface Hardened
 HRC 58 ÷ 60


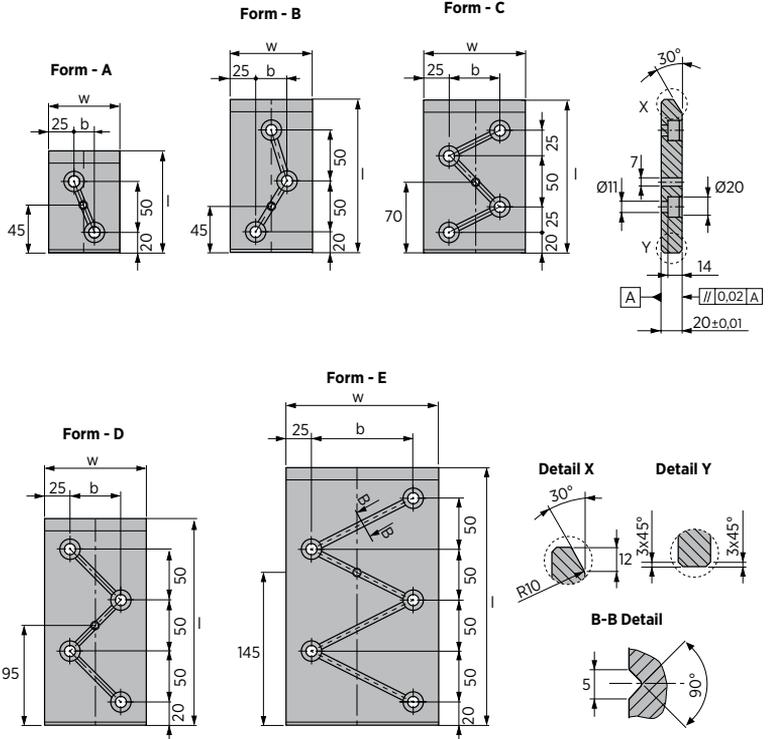
CODE	Form	w -2	l ±0,1	b ±0,1
G225-07-070-100	A	70	100	20
G225-07-070-150	B	70	150	20
G225-07-070-200	D	70	200	20
G225-07-100-150	C	100	150	50
G225-07-100-200	D	100	200	50
G225-07-100-250	E	100	250	50
G225-07-150-200	D	150	200	100
G225-07-150-250	E	150	250	100


 Material :
 16MnCr5

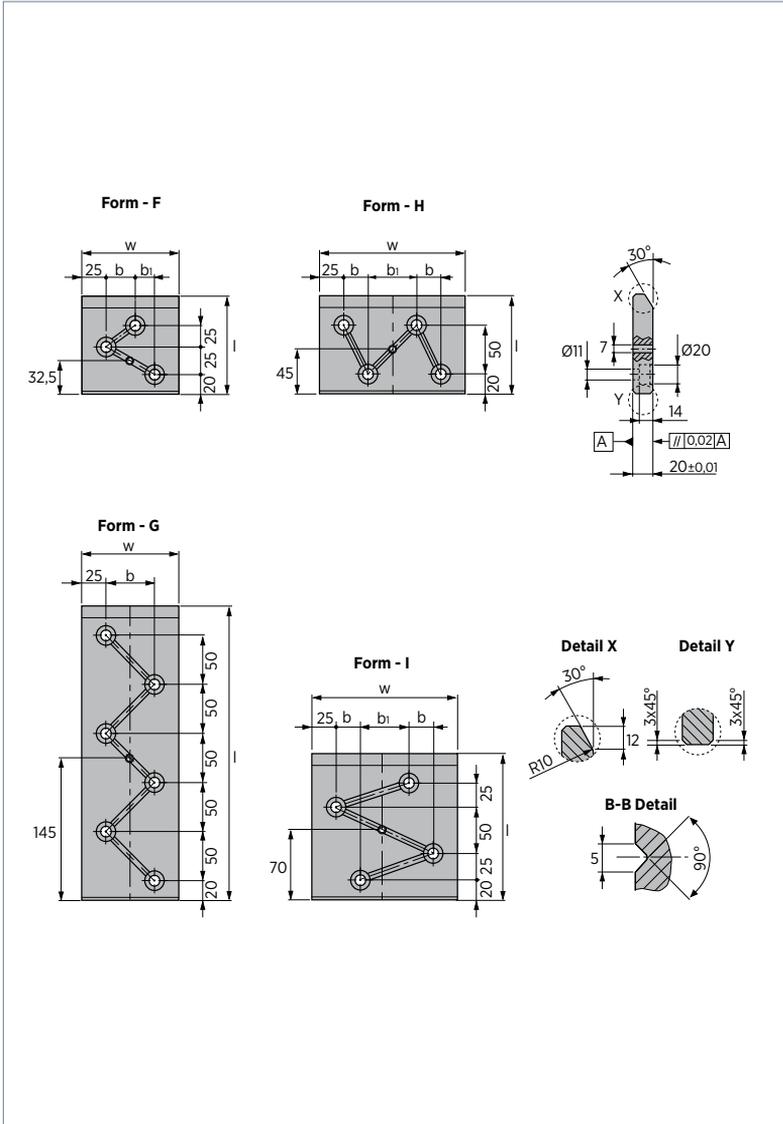
 Hardened
 HRC 58 ÷ 60

CODE	Form	w ±0,1	l ±0,1	b ±0,1	b ₁ ±0,1
G225-07-100-100	F	100	100	30	20
G225-07-100-300	G	100	300	50	-
G225-07-150-100	H	150	100	25	50
G225-07-150-150	I	150	150	25	50
G225-07-150-300	G	150	300	100	-
G225-07-200-100	H	200	100	50	50

2

 Material :
 16MnCr5
 Hardened
 HRC 58 ÷ 60


CODE	Form	w -2	l ±0,1	b ±0,1
G225-07-070-1001	A	70	100	20
G225-07-070-1501	B	70	150	20
G225-07-070-2001	D	70	200	20
G225-07-100-1501	C	100	150	50
G225-07-100-2001	D	100	200	50
G225-07-100-2501	E	100	250	50
G225-07-150-2001	D	150	200	100
G225-07-150-2501	E	150	250	100

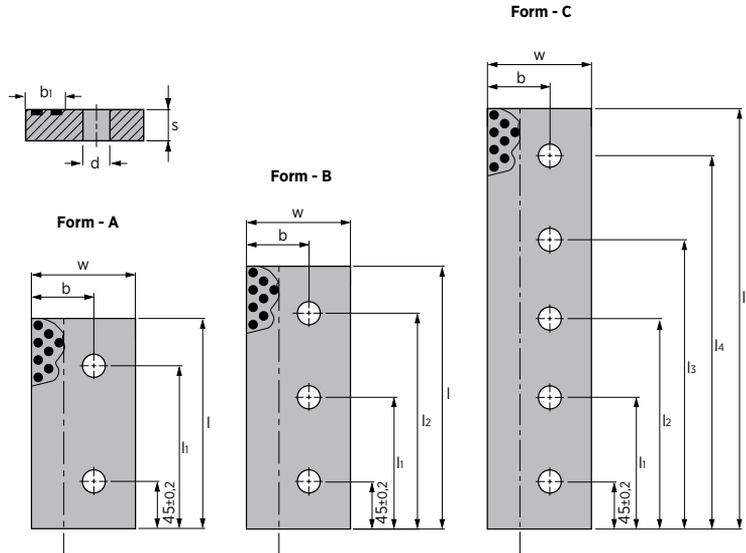

 Material :
 16MnCr5

 Surface Hardened
 HRC 58 ÷ 60

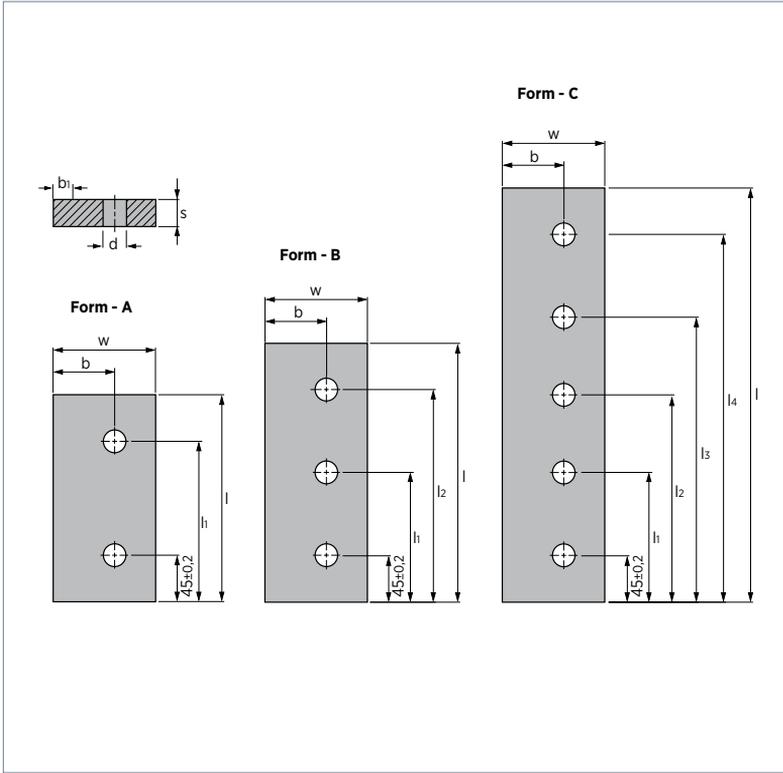
CODE	Form	w -2	l ±0,1	b ±0,1	b ₁ ±0,1
G225-07-100-1001	F	100	100	30	20
G225-07-100-3001	G	100	300	50	-
G225-07-150-1001	H	150	100	25	50
G225-07-150-1501	I	150	150	25	50
G225-07-150-3001	G	150	300	100	-
G225-07-200-1001	H	200	100	50	50

2

 Material :
 CK45 + Graphite

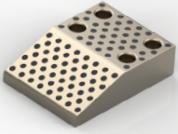
 Surface Hardened
 HRC 58 ± 62


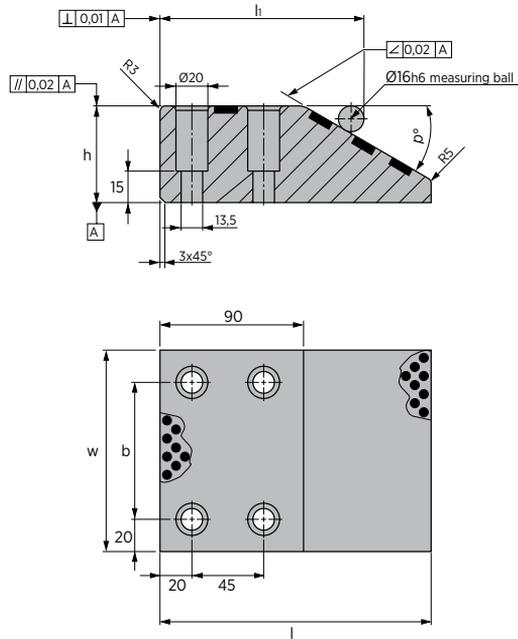
CODE	Form	w	s	l	l ₁ ±0,2	l ₂ ±0,2	l ₃ ±0,2	l ₄ ±0,2	b	b ₁	d H13
G225-08-075-160	A	75	25	160	115	-	-	-	40	25	17,5
G225-08-075-200	A	75	25	200	155	-	-	-	40	25	17,5
G225-08-075-250	B	75	25	250	125	205	-	-	40	25	17,5
G225-08-100-160	A	100	25	160	115	-	-	-	60	30	17,5
G225-08-100-200	A	100	25	200	155	-	-	-	60	30	17,5
G225-08-100-250	B	100	25	250	125	205	-	-	60	30	17,5
G225-08-100-400	C	100	25	400	125	200	275	355	60	30	17,5
G225-08-100-1601	A	100	30	160	115	-	-	-	60	30	22
G225-08-100-2001	A	100	30	200	155	-	-	-	60	30	22
G225-08-100-2501	B	100	30	250	125	205	-	-	60	30	22
G225-08-100-4001	C	100	30	400	125	200	275	355	60	30	22
G225-08-125-160	A	125	30	160	115	-	-	-	75	30	22
G225-08-125-200	A	125	30	200	155	-	-	-	75	30	22
G225-08-125-250	B	125	30	250	125	205	-	-	75	30	22
G225-08-125-400	C	125	30	400	125	200	275	355	75	30	22


 Material :
 CK45
 Surface Hardened
 HRC 58 ÷ 62

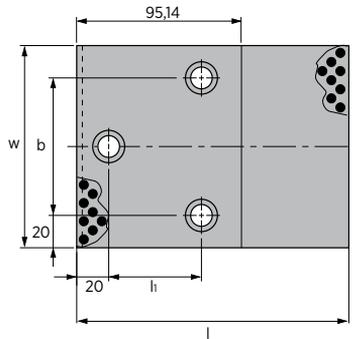
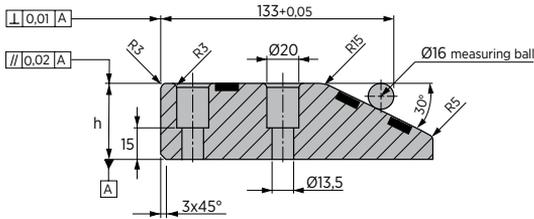

CODE	Form	w	s	l	h ±0,2	l2 ±0,2	l3 ±0,2	l4 ±0,2	b	b1	d H13
G225-09-075-160	A	75	25	160	115	-	-	-	40	25	17,5
G225-09-075-200	A	75	25	200	155	-	-	-	40	25	17,5
G225-09-075-250	B	75	25	250	125	205	-	-	40	25	17,5
G225-09-100-160	A	100	25	160	115	-	-	-	60	30	17,5
G225-09-100-200	A	100	25	200	155	-	-	-	60	30	17,5
G225-09-100-250	B	100	25	250	125	205	-	-	60	30	17,5
G225-09-100-400	C	100	25	400	125	200	275	355	60	30	17,5
G225-09-100-1601	A	100	30	160	115	-	-	-	60	30	22
G225-09-100-2001	A	100	30	200	155	-	-	-	60	30	22
G225-09-100-2501	B	100	30	250	125	205	-	-	60	30	22
G225-09-100-4001	C	100	30	400	125	200	275	355	60	30	22
G225-09-125-160	A	125	30	160	115	-	-	-	75	30	22
G225-09-125-200	A	125	30	200	155	-	-	-	75	30	22
G225-09-125-250	B	125	30	250	125	205	-	-	75	30	22
G225-09-125-400	C	125	30	400	125	200	275	355	75	30	22

2


 Material :
 Bronze + Graphite

 Hardness
 HB \geq 190


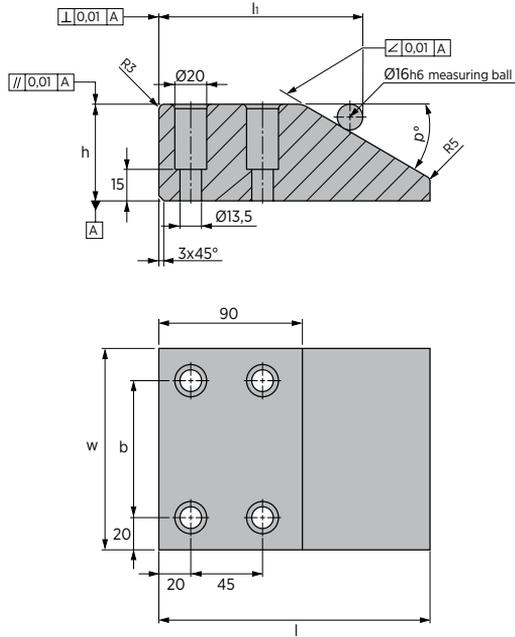
CODE	w	h $\pm 0,01$	l	l ₁ $\pm 0,05$	b	p
G228-01-10015045	100	45	150	127,86	60	30°
G228-01-10017045	100	45	170	143,37	60	20°
G228-01-10017060	100	60	170	127,86	60	30°
G228-01-12515045	125	45	150	127,86	85	30°
G228-01-12517045	125	45	170	143,37	85	20°
G228-01-12517060	125	60	170	127,86	85	30°
G228-01-15015045	150	45	150	127,86	110	30°
G228-01-15017045	150	45	170	143,37	110	20°
G228-01-15017060	150	60	170	127,86	110	30°


 Material :
 Bronze + Graphite

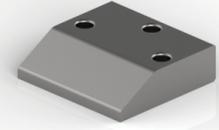
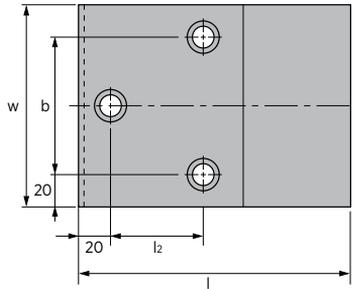
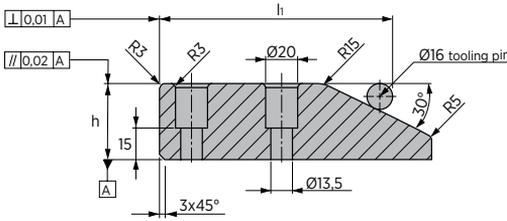
 Hardness
 HB \geq 190

CODE	w	h $\pm 0,05$	l	l ₁	b
G228-04-10012530	100	30	125	50	60
G228-04-10015045	100	45	150	45	60
G228-04-10017060	100	60	170	45	60
G228-04-12512530	125	30	125	50	85
G228-04-12515045	125	45	150	45	85
G228-04-12517060	125	60	170	45	85
G228-04-16012530	160	30	125	50	120
G228-04-16015045	160	45	150	45	120
G228-04-16017060	160	60	170	45	120

2

 Material :
 X153CrMoV12
 Hardened
 HRC 60 ± 62


CODE	w	h ±0,01	l	h ±0,05	b	p
G229-01-10015045	100	45	150	127,86	60	30°
G229-01-10017045	100	45	170	143,37	60	20°
G229-01-10017060	100	60	170	127,86	60	30°
G229-01-12515045	125	45	150	127,86	85	30°
G229-01-12517045	125	45	170	143,37	85	20°
G229-01-12517060	125	60	170	127,86	85	30°
G229-01-15015045	150	45	150	127,86	110	30°
G229-01-15017045	150	45	170	143,37	110	20°
G229-01-15017060	150	60	170	127,86	110	30°

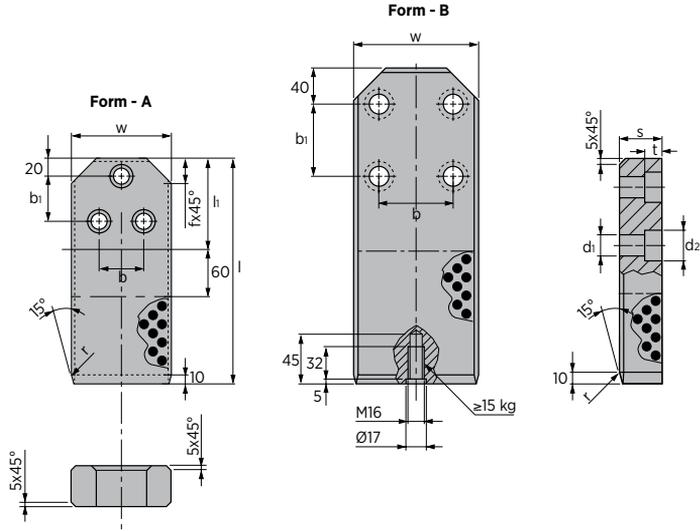


Material :
42CrMo4
Hardened
HRC 56 ÷ 60

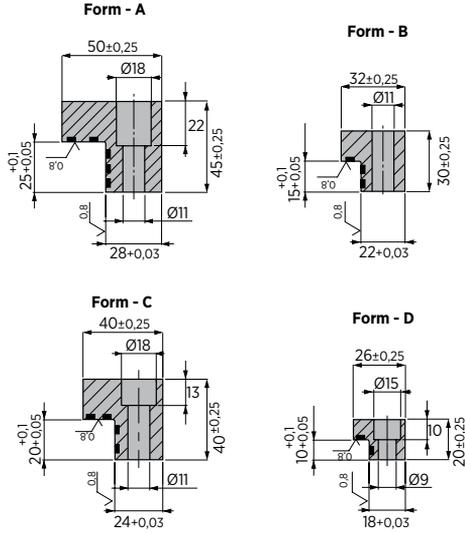


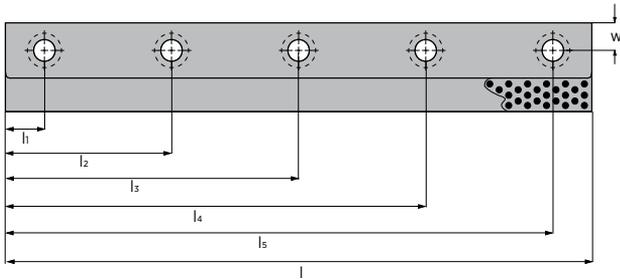
CODE	w	h	l	h	l ₂	b
G229-03-10012530	100	30	125	132,8	50	60
G229-03-10015045	100	45	150	127,9	45	60
G229-03-10017060	100	60	170	127,9	45	60
G229-03-12512530	125	30	125	132,8	50	85
G229-03-12515045	125	45	150	127,9	45	85
G229-03-12517060	125	60	170	127,9	45	85
G229-03-16012530	160	30	125	132,8	50	120
G229-03-16015045	160	45	150	127,9	45	120
G229-03-16017060	160	60	170	127,9	45	120

2

 Material :
 CK45 + Graphite
 Surface Hardened
 HRC 58 ÷ 60


CODE	Form	w f7	s	l	l ₁	b	b ₁	d ₁	d ₂	f	r	t
G229-05-06318036	A	63	36	180	90	36	50	14	20	18	16	16
G229-05-06320036	A	63	36	200	90	36	50	14	20	18	16	16
G229-05-06322436	A	63	36	224	90	36	50	14	20	18	16	16
G229-05-07118036	A	71	36	180	90	36	50	14	20	18	16	16
G229-05-07120036	A	71	36	200	90	36	50	14	20	18	16	16
G229-05-07122436	A	71	36	224	90	36	50	14	20	18	16	16
G229-05-09020036	A	90	36	200	100	50	50	18	26	28	25	21
G229-05-09022436	A	90	36	224	100	50	50	18	26	28	25	21
G229-05-09025036	A	90	36	250	100	50	50	18	26	28	25	21
G229-05-09020045	A	90	45	200	100	50	50	18	26	28	25	21
G229-05-09022445	A	90	45	224	100	50	50	18	26	28	25	21
G229-05-09025045	A	90	45	250	100	50	50	18	26	28	25	21
G229-05-11220045	A	112	45	200	100	50	50	18	26	28	25	21
G229-05-11222445	A	112	45	224	100	50	50	18	26	28	25	21
G229-05-11225045	A	112	45	250	100	50	50	18	26	28	25	21
G229-05-14031545	B	140	45	315	150	90	80	22	33	36	31,5	25,5
G229-05-14040045	B	140	45	400	150	90	80	22	33	36	31,5	25,5
G229-05-14031556	B	140	56	315	150	90	80	22	33	36	31,5	25,5
G229-05-14040056	B	140	56	400	150	90	80	22	33	36	31,5	25,5
G229-05-19031545	B	190	45	315	150	90	80	22	33	36	31,5	25,5
G229-05-19040045	B	190	45	400	150	90	80	22	33	36	31,5	25,5
G229-05-19031556	B	190	56	315	150	90	80	22	33	36	31,5	25,5
G229-05-19040056	B	190	56	400	150	90	80	22	33	36	31,5	25,5
G229-05-24050056	B	240	56	500	250	160	160	26	40	36	31,5	30,5
G229-05-24063056	B	240	56	630	250	160	160	26	40	36	31,5	30,5


 Material :
 Bronze + Graphite

 Hardness
 HB ≥ 190


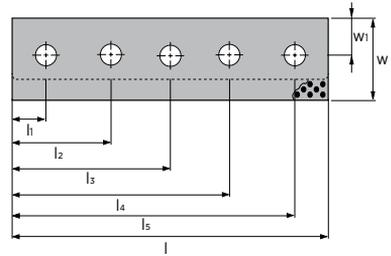
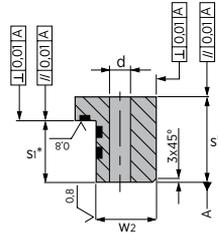
CODE	Form	l	h	l ₂	l ₃	l ₄	l ₅	w ₁	Holes
G231-01-2026100	D	100	20	80	-	-	-	9	2
G231-01-2026150	D	150	20	75	130	-	-	9	3
G231-01-2026200	D	200	20	75	125	180	-	9	4
G231-01-3032100	B	100	20	80	-	-	-	11	2
G231-01-3032150	B	150	20	75	130	-	-	11	3
G231-01-3032200	B	200	20	75	125	180	-	11	4
G231-01-3032250	B	250	20	90	160	230	-	11	4
G231-01-4040160	C	160	15	145	-	-	-	12	2
G231-01-4040250	C	250	15	145	225	-	-	12	3
G231-01-4550200	A	200	20	75	125	180	-	14	4
G231-01-4550250	A	250	20	90	160	230	-	14	4
G231-01-4550300	A	300	20	85	150	215	280	14	5
G231-01-4550350	A	350	20	100	175	250	330	14	5

2

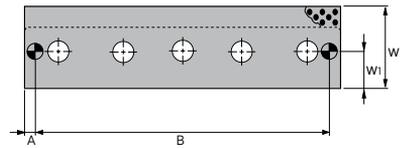
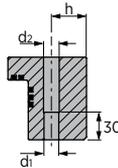
 Material :
 Bronze + Graphite

 Hardness
 HB ≥ 190

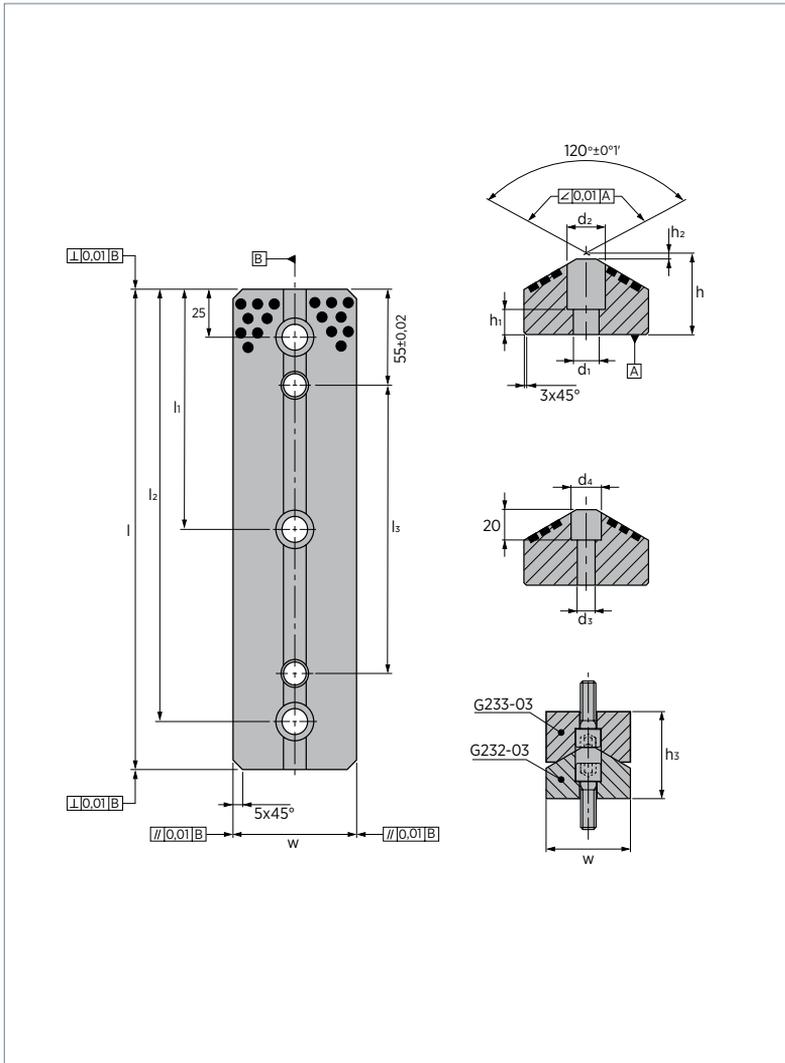
Ordering Example:
 G231-04-5555100X

Blank= Without Dowel Holes
D= with Dowel Holes(*without
 0.5 adjustment machining
 allowance)


Dowel Holes Location on Request

Detail - X


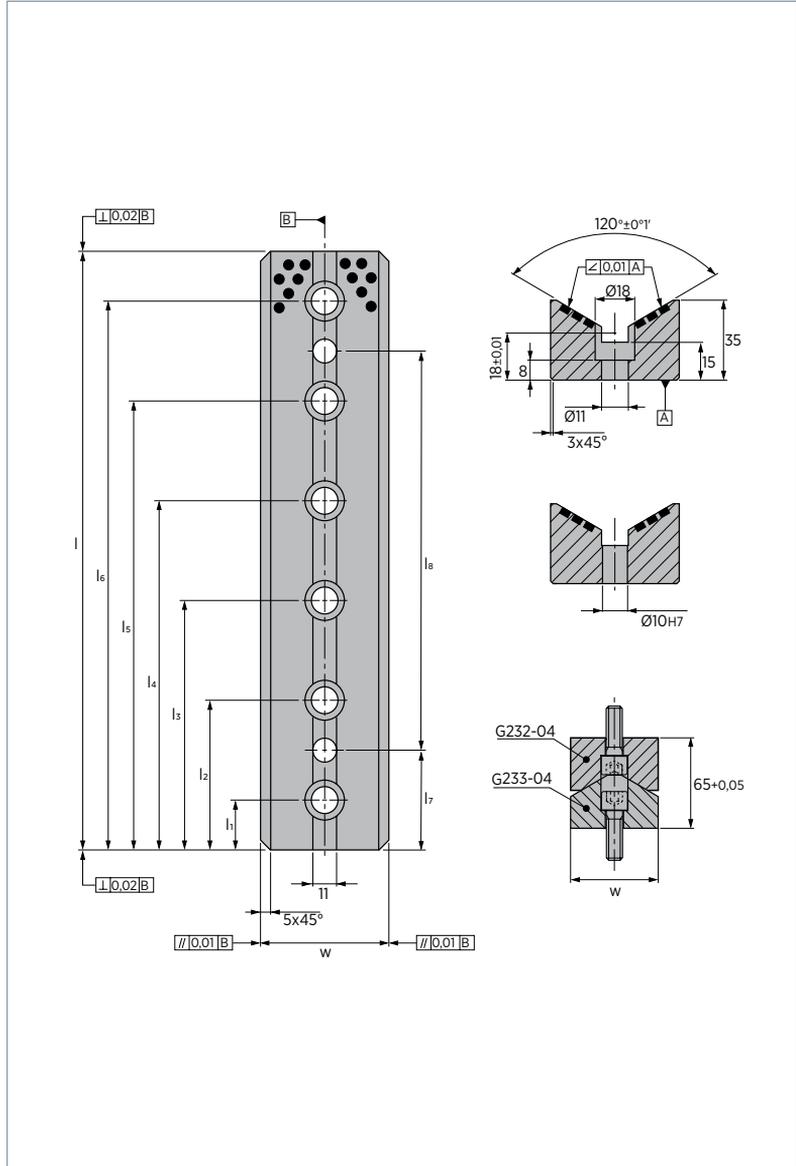
CODE	w ±0,2	s	l -0,2	h ±0,2	l ₂ ±0,2	l ₃ ±0,2	l ₄ ±0,2	l ₅ ±0,2	w ₁ ±0,2	w ₂ -0,02	s ₁ +0,1	d H13	h ±0,02	d ₁ H7	d ₂	A	B ±0,02
G231-04-5555100	55	55,5	100	27,5	72,5	-	-	-	20	37	39,5	13,5	20	10	11	10	80
G231-04-5555160	55	55,5	160	27,5	132,5	-	-	-	20	37	39,5	13,5	20	10	11	10	140
G231-04-7075160	70	75,5	160	35	125	-	-	-	30	50	55,5	17,5	30	12	13	12,5	135
G231-04-7075200	70	75,5	200	35	165	-	-	-	30	50	55,5	17,5	30	12	13	12,5	175
G231-04-7075250	70	75,5	250	35	125	215	-	-	30	50	55,5	17,5	30	12	13	12,5	225
G231-04-7075400	70	75,5	400	35	125	200	275	365	30	50	55,5	17,5	30	12	13	12,5	375
G231-04-8590160	85	90,5	160	42,5	117,5	-	-	-	38	63	65,5	22	38	16	17	15	130
G231-04-8590200	85	90,5	200	42,5	157,5	-	-	-	38	63	65,5	22	38	16	17	15	170
G231-04-8590250	85	90,5	250	42,5	125	207,5	-	-	38	63	65,5	22	38	16	17	15	220
G231-04-8590400	85	90,5	400	42,5	125	200	275	357,5	38	63	65,5	22	38	16	17	15	370


 Material :
 Bronze + Graphite
 Hardness
 HB ≥ 190

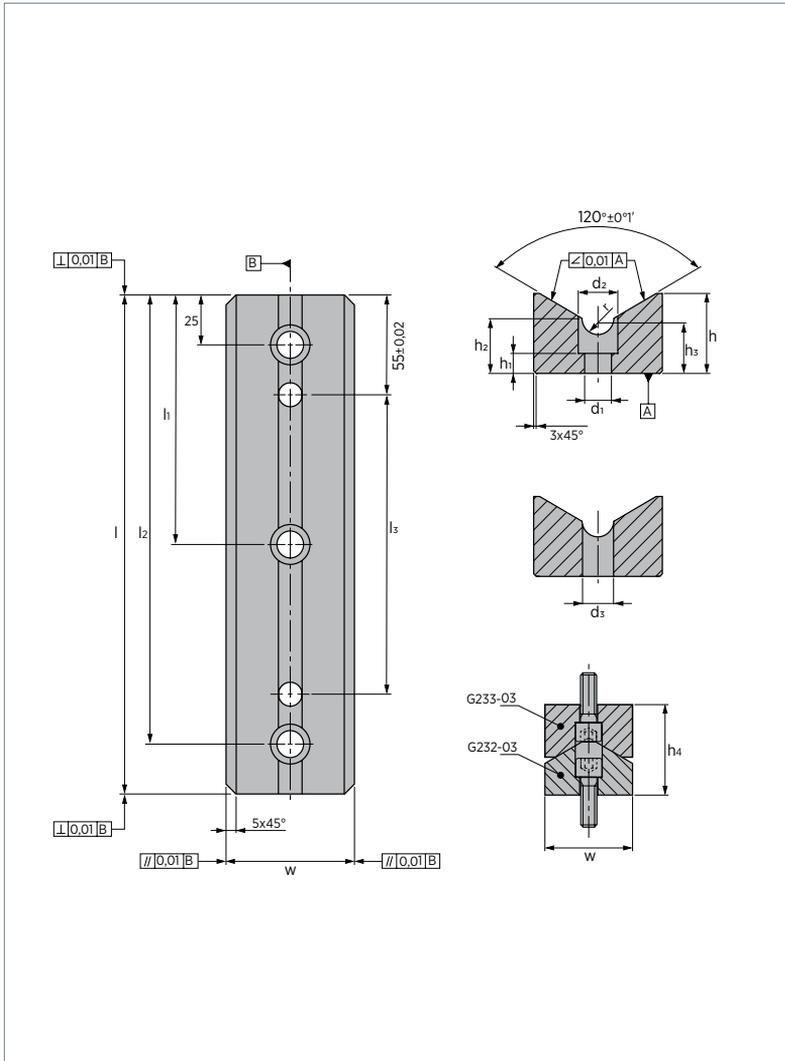

CODE	w h6	h ±0,01	l -0,2	h ±0,2	l ₂ ±0,2	l ₃ ±0,01	h ₁ ±0,2	h ₂ ±0,2	h ₃ +0,05	d ₁ H13	d ₂ H13	d ₃ H7	d ₄ H13
G232-03-0650150	65	47	150	-	125	45	20	3	65	13,5	20	12	14
G232-03-0650200	65	47	200	-	175	95	20	3	65	13,5	20	12	14
G232-03-0650250	65	47	250	125	225	145	20	3	65	13,5	20	12	14
G232-03-0650300	65	47	300	150	275	195	20	3	65	13,5	20	12	14
G232-03-1250150	125	57	150	-	125	45	15	5	85	17,5	26	16	18
G232-03-1250200	125	57	200	-	175	95	15	5	85	17,5	26	16	18
G232-03-1250250	125	57	250	125	225	145	15	5	85	17,5	26	16	18
G232-03-1250300	125	57	300	150	275	195	15	5	85	17,5	26	16	18

2


 Material :
 Bronze + Graphite

 Hardness
 HB \geq 190


CODE	w h6	l	l ₁	l ₂	l ₃	l ₄	l ₅	l ₆	l ₇ ±0,02	l ₈ ±0,01
G232-04-3565100	65	100	20	80	-	-	-	-	40	20
G232-04-3565150	65	150	25	75	125	-	-	-	50	50
G232-04-3565200	65	200	25	75	125	175	-	-	50	100
G232-04-3565250	65	250	25	75	125	175	225	-	50	150
G232-04-3565300	65	300	25	75	125	175	225	275	50	200

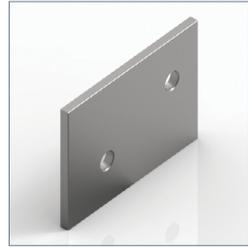
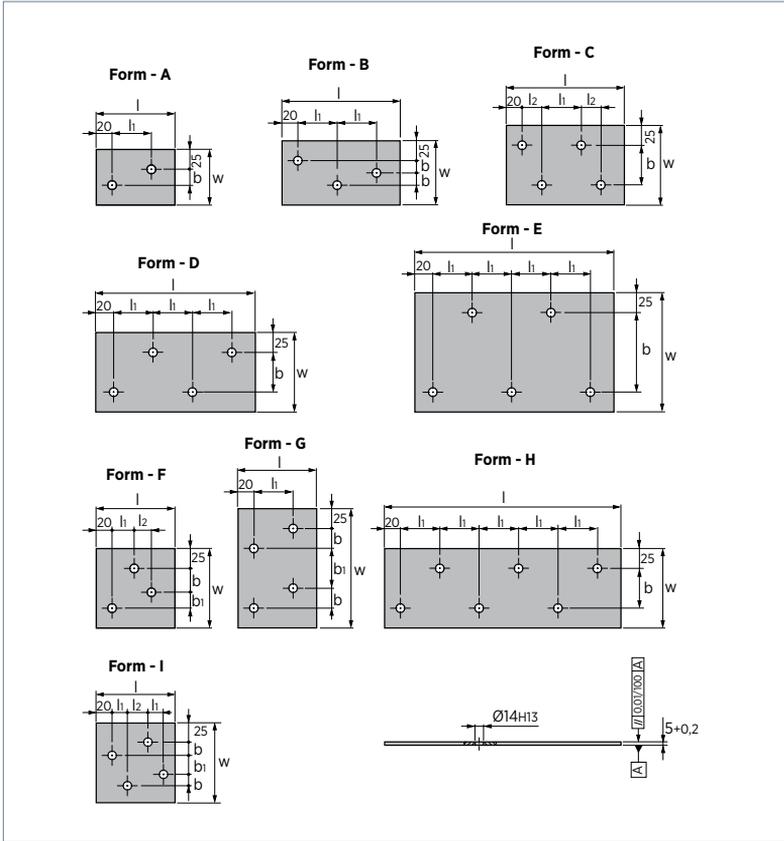


Material :
CK45

Surface Hardened
HRC 56 ÷ 60



CODE	w h6	h ±0,2	l ±0,2	h ±0,2	l2 0,2	l3 ±0,01	h1	h2 ±0,2	h3 ±0,01	h4 +0,05	d1 H13	d2 H13	ds H7	r
G233-03-0650150	65	35	150	-	125	45	8	22	18	65	13,5	20	12	7
G233-03-0650200	65	35	200	-	175	95	8	22	18	65	13,5	20	12	7
G233-03-0650250	65	35	250	125	225	145	8	22	18	65	13,5	20	12	7
G233-03-0650300	65	35	300	150	275	195	8	22	18	65	13,5	20	12	7
G233-03-1250150	125	60	150	-	125	45	15	34	28	85	17,5	26	16	10
G233-03-1250200	125	60	200	-	175	95	15	34	28	85	17,5	26	16	10
G233-03-1250250	125	60	250	125	225	145	15	34	28	85	17,5	26	16	10
G233-03-1250300	125	60	300	150	275	195	15	34	28	85	17,5	26	16	10

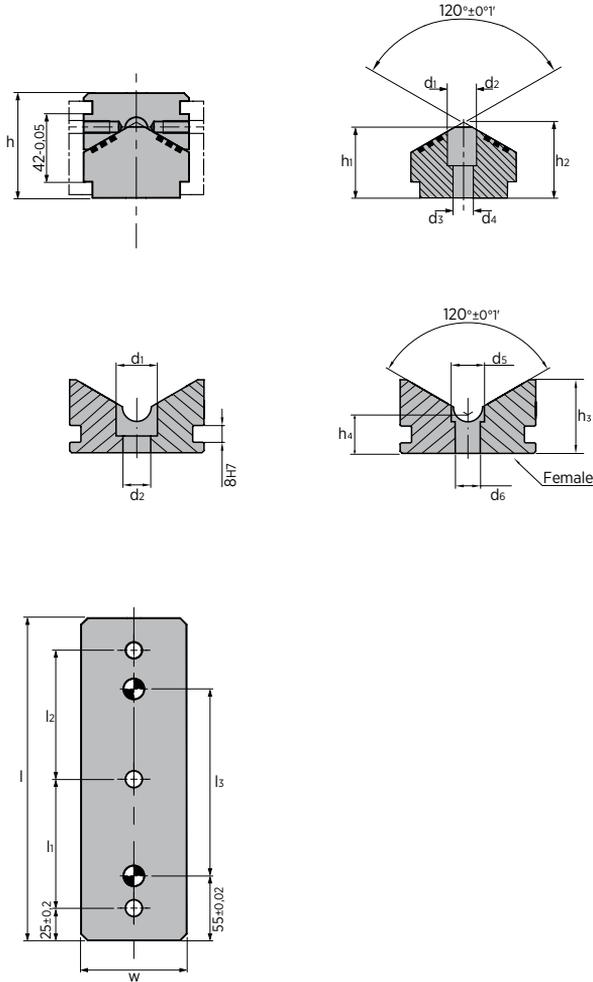

 Material :
 ST 37


CODE	Form	w -2	l ±0,1	li ±0,1	l2	b ±0,1	b1 ±0,1
G234-01-070-100	A	70	100	50	-	20	-
G234-01-070-150	B	70	150	50	-	10	-
G234-01-070-200	D	70	200	50	-	20	-
G234-01-100-100	F	100	100	25	25	30	20
G234-01-100-150	C	100	150	50	25	50	-
G234-01-100-200	D	100	200	50	-	50	-
G234-01-100-250	E	100	250	50	-	50	-
G234-01-100-300	H	100	300	50	-	50	-
G234-01-150-100	G	150	100	50	-	25	50
G234-01-150-150	I	150	150	25	50	25	50
G234-01-150-200	D	150	200	50	-	100	-
G234-01-150-250	E	150	250	50	-	100	-
G234-01-150-300	H	150	300	50	-	100	-
G234-01-200-100	G	200	100	50	-	50	50

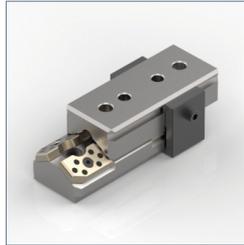
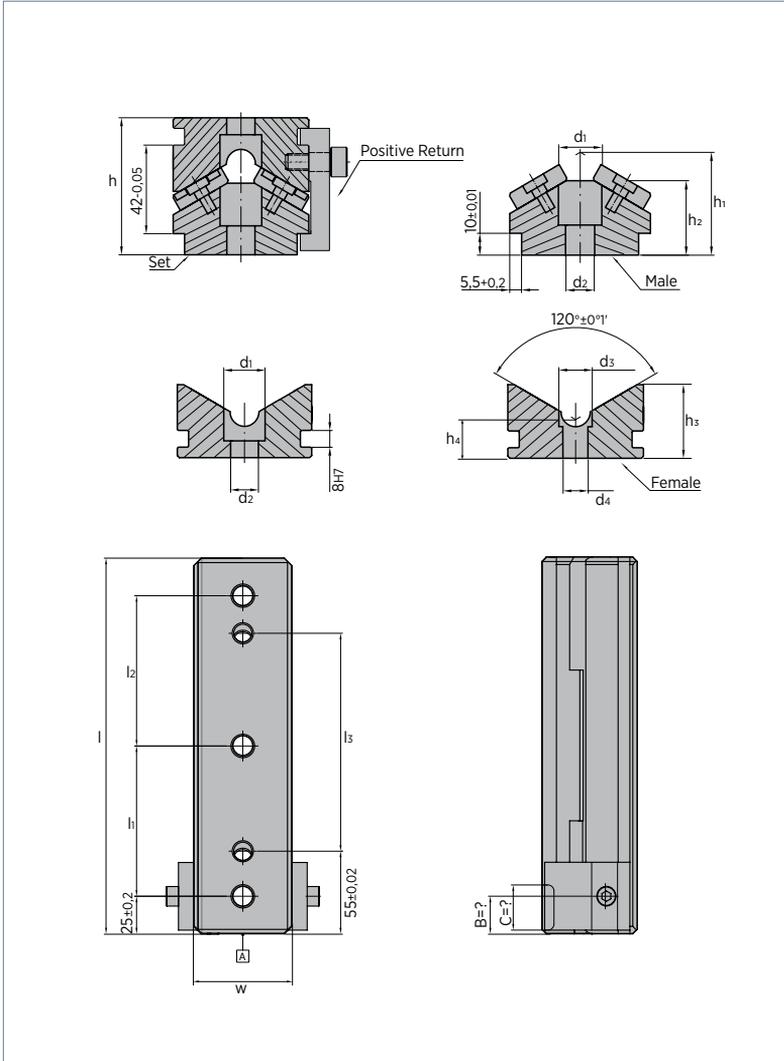
2


 Material (U Block) :
 Bronze + Graphite
 HB > 190

 Material (V Block - Body) :
 CK45

 Hardened
 HRC 58 ÷ 60


CODE	w ±0,025	h	l	h ₁	l ₂	l ₃ ±0,01	h ₁	h ₂ ±0,01	h ₃	h ₄ ±0,01	d ₁	d ₂	d ₃	d ₄ H7	d ₅	d ₆ H7
G235-01-065065150	65	65	150	-	125	45	44	47	35	18	20	16	13,5	12	13	12
G235-01-065065200	65	65	200	-	175	95	44	47	35	18	20	16	13,5	12	13	12
G235-01-065065250	65	65	250	100	100	145	44	47	35	18	20	16	13,5	12	13	12
G235-01-065065300	65	65	300	125	125	195	44	47	35	18	20	16	13,5	12	13	12
G235-01-125085150	125	85	150	-	125	45	52	57	60	28	26	18	17,5	16	17	16
G235-01-125085200	125	85	200	-	175	95	52	57	60	28	26	18	17,5	16	17	16
G235-01-125085250	125	85	250	100	100	145	52	57	60	28	26	18	17,5	16	17	16
G235-01-125085300	125	85	300	125	125	195	52	57	60	28	26	18	17,5	16	17	16


 Material (U Block) :
 CK45

 Surface Hardened
 HRC 60 ÷ 64

 Material (V Block - Body) :
 CK45

 G245-01
 Bronze with non-liquid
 Lubricant
 HB ≥ 190

 G245-03
 Sintered Material

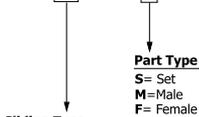
 Material (Positive Return) :
 Steel
 Hardened
 HRC 30 ÷ 35
 Screws not included.

 B and C are given by the
 customer.

 Two Positive return clamp is
 supplied with each V Driver Set.

Order example

G245-XX-0615-02-X-BC

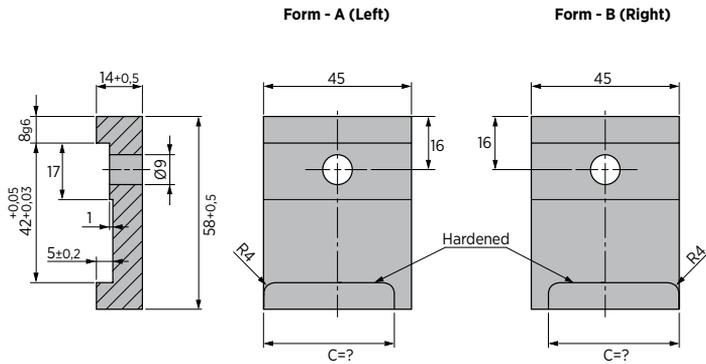

Sliding Type
01=Bronze with non-liquid Lubricant
03=Sintered Lubricant

CODE	w h6	h ±0,05	l -0,2	l1 ±0,12	l2 ±0,12	l3 ±0,01	h1	h2 ±0,05	h3 ±0,2	h4 ±0,01	d1 H13	d2 H13	d3 H13	d4 H7
G245-XX-0615-02-X-BC	65	65	150	-	125	45	47	34	35	18	20	13,5	16	12
G245-XX-0620-02-X-BC	65	65	200	-	175	95	47	34	35	18	20	13,5	16	12
G245-XX-0625-02-X-BC	65	65	250	100	100	145	47	34	35	18	20	13,5	16	12
G245-XX-0630-02-X-BC	65	65	300	125	125	195	47	34	35	18	20	13,5	16	12
G245-XX-1215-02-X-BC	125	85	150	-	125	45	57	44	60	28	26	17,5	20	16
G245-XX-1220-02-X-BC	125	85	200	-	175	95	57	44	60	28	26	17,5	20	16
G245-XX-1225-02-X-BC	125	85	250	100	100	145	57	44	60	28	26	17,5	20	16
G245-XX-1230-02-X-BC	125	85	300	125	125	195	57	44	60	28	26	17,5	20	16

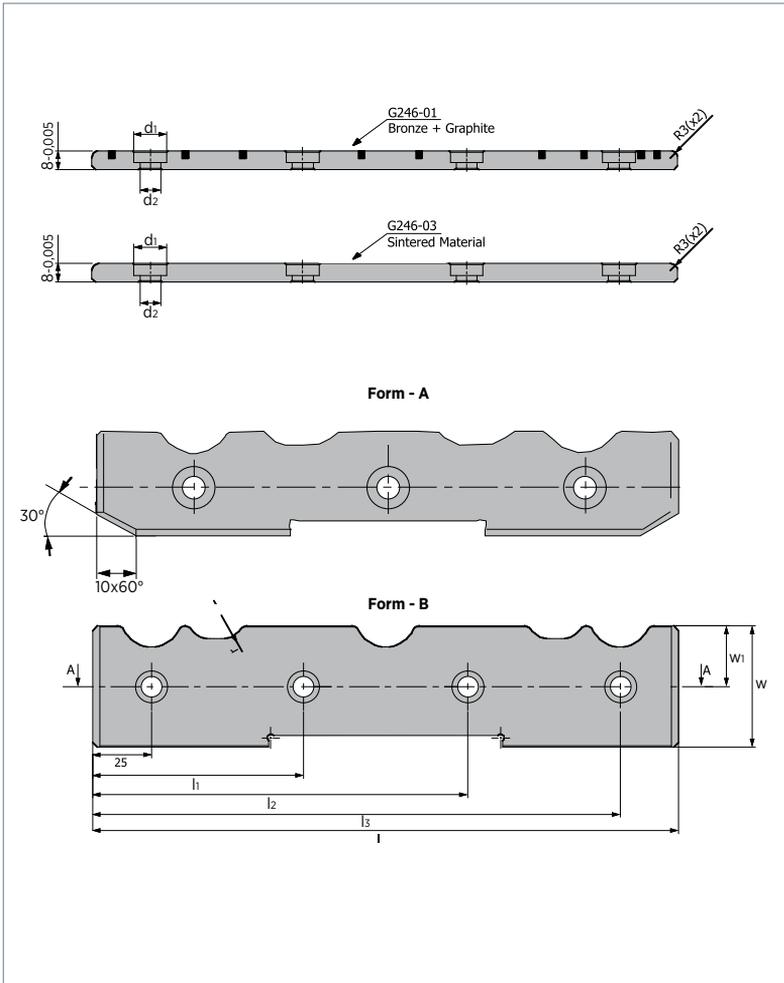
2

 Material :
 Steel

 Hardened
 HRC 30 ± 35

 C dimension is given by the
 customer.


CODE	Form	Location
G234-03-045-C	A + B	Set both sides
G234-03-045L-C	A	Left
G234-03-045R-C	B	Right



Material :

G246-01
Bronze + Graphite

Hardness
HB ≥ 190

G246-03
Sintered Material
Max. specific pressure
300 MPA (N/mm²)

Screws not included.



Order Example
G246-XX-065-150-02

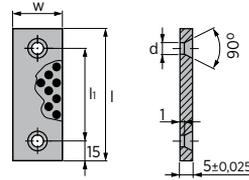
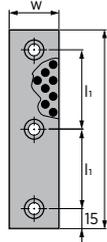
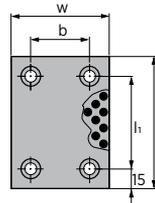
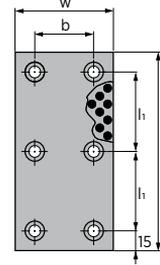
↓
Sliding Type
01 = Bronze with non-liquid Lubricant
03 = Sintered Material

CODE	Form	w ±0,2	l -0,5 / -1	h -0,3 / -0,5	l ₂ -0,3 / -0,5	l ₃ -0,3 / -0,5	w ₁ ±0,1	d ₁	d ₂	r
G246-XX-065-150-02	A	27	150	75	-	125	14	11	6,5	8,5
G246-XX-065-200-02	A	27	200	75	125	175	14	11	6,5	8,5
G246-XX-065-250-02	A	27	250	90	160	225	14	11	6,5	8,5
G246-XX-065-300-02	A	27	300	95	205	275	14	11	6,5	8,5
G246-XX-125-150-02	B	52	150	75	-	125	26	14	9	10
G246-XX-125-200-02	B	52	200	75	125	175	26	14	9	10
G246-XX-125-250-02	B	52	250	90	160	225	26	14	9	10
G246-XX-125-300-02	B	52	300	100	200	275	26	14	9	10

2


 Material :
 Bronze + Graphite

 Hardness
 HB \geq 190

Form - A

Form - B

Form - C

Form - D


CODE	Form	w	l	h	b	d
P605-01-018-050	A	18	50	20	-	6,5
P605-01-018-075	A	18	75	45	-	6,5
P605-01-018-100	A	18	100	70	-	6,5
P605-01-018-150	B	18	150	60	-	6,5
P605-01-028-050	A	28	50	20	-	9
P605-01-028-075	A	28	75	45	-	9
P605-01-028-100	A	28	100	70	-	9
P605-01-028-150	B	28	150	60	-	9
P605-01-038-050	A	38	50	20	-	9
P605-01-038-075	A	38	75	45	-	9
P605-01-038-100	A	38	100	70	-	9
P605-01-038-150	B	38	150	60	-	9
P605-01-048-075	A	48	75	45	-	9
P605-01-048-100	A	48	100	70	-	9
P605-01-048-125	A	48	125	95	-	9
P605-01-048-150	B	48	150	60	-	9
P605-01-075-075	C	75	75	45	45	9
P605-01-075-100	C	75	100	70	45	9
P605-01-075-125	C	75	125	95	45	9
P605-01-075-150	D	75	150	60	45	9
P605-01-100-100	C	100	100	70	70	9
P605-01-100-125	C	100	125	95	70	9
P605-01-100-150	D	100	150	60	70	9

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 <p>M301-03 Mekanik Dayamalar için Sensör ve Konnektörler Sensor and Connector Sensoren und Steckverbindungen</p>	3.15	 <p>M301-12 Sertleştirilmiş Hassas Mekanik Dayamalar Precision Gage Hardened Feinweiser Gehärtet VW/AUDI</p>	3.22
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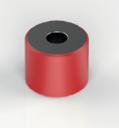
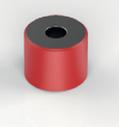
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 <p>M321-03 Montajlı Profil Gövde Pipe with Assembly Klapprohrkörper mit Baugruppe VW/AUDI</p>	3.102	 <p>M323-01 Pilot Pim Ünitesi Pilot Unit Suchereinheit MERCEDES-BENZ</p>	3.109
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 <p>M321-04 Profil 3x50x70-L480 Laser Cutting Part Rohrlaserteil VW/AUDI</p>	3.104	 <p>S511-01 Elastomer Tıpa Elastomer Cap Elastomerdruckstück FCA - PSA</p>	3.111
 <p>M321-05 Genişlik Ayar Profili Set 5 mm Pipe Box Set 5 mm DIY-Klapprohr-Box 5 mm VW/AUDI</p>	3.105	 <p>S515-03 Elastomer Sıyrıcılar Stripper for Blanking Dies Abstreifer für Platinenschnitte FCA - VW/AUDI</p>	3.112
 <p>M321-05 Genişlik Ayar Profili Set 3 mm Pipe Box Set 3 mm DIY-Klapprohr-Box 3 mm VW/AUDI</p>	3.106	 <p>Z401-01 Zimba Tutucu Stamp Retainer Halteplatte FCA - PSA - RENAULT</p>	3.113

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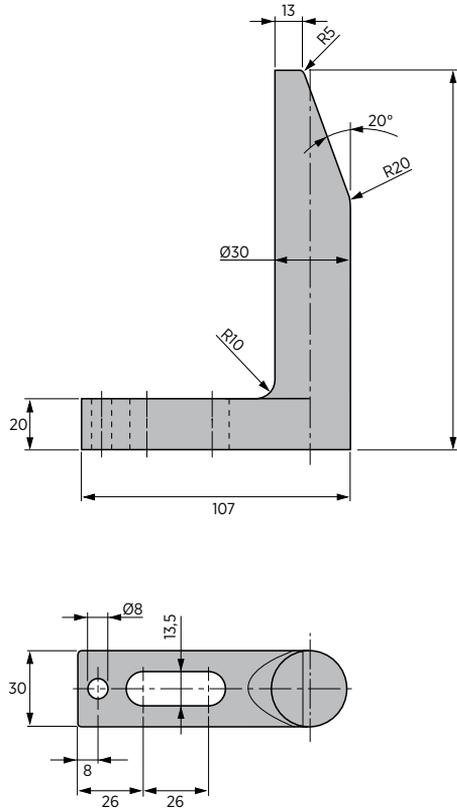
Contents	Page	Contents	Page
 <p>Z401-02 Altlık Plakası Backing Plate Druckplatte FCA - PSA - RENAULT</p>	3.114	 <p>M314-01 Yaylı Iticiler Spring Plungers Federnde Druckstücke mit Sechskant</p>	3.120
 <p>Z401-06 Zimba Stamp Buchstabenstempel FCA - PSA - RENAULT</p>	3.115	 <p>M314-02 Yaylı Iticiler Spring Plungers Federnde Druckstücke mit Sechskant</p>	3.120
 <p>Z401-07 Zimba Stamp Buchstabenstempel FCA - PSA - RENAULT</p>	3.116	 <p>M314-03 Yaylı Iticiler Spring Plungers Federnde Druckstücke mit Sechskant FCA</p>	3.121
 <p>Z402-03 Konumlandırma Zimbası Visual Locator Punch Endkontrolstempel VW/AUDI</p>	3.117	 <p>M314-04 Yaylı Iticiler Spring Plungers Federnde Druckstücke mit Sechskant</p>	3.122
 <p>Z000166439 Kabartmalı Çapak Kaydırma Plakası Stainless Steel Embossed Sheet Geprägt Scheiße</p>	3.118	 <p>M314-05 Yaylı Iticiler için Ayar Takımı Insertion Tool for Spring Plungers Beschreibung</p>	3.123
 <p>A101-15 Rondela Washer Scheibe</p>	3.118	 <p>M315-01 Stoplama Civataları Shoulder Screws Schulter-Passschrauben</p>	3.124
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 <p>S504-04 Yaylı İtçiler Spring Plungers Federnde Druckstücke mit Sechskant VDI 3004</p>	3.127	 <p>S513-1XX Vulkolon Yaylar Elastomer Springs Elastomerfeder</p>	3.132
 <p>S504-05 Yaylı İtçiler Spring Plungers Federnde Druckstücke mit Sechskant VDI 3004</p>	3.128	 <p>S514-XXX Delikli Vulkolon Yaylar Elastomer Springs, Hollow Elastomerfeder FCA - PSA</p>	3.133 - 3.134
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 <p>S504-07 Yaylı İtçiler Spring Plungers Federnde Druckstücke mit Sechskant VDI 3004</p>	3.130		
 <p>S504-08 Yaylı İtçiler için Ayar Takımı Insertion Tool for Spring Plungers Beschreibung</p>	3.131		
 <p>S510-05 Delikli Vulkolon Yaylar Elastomer Springs, Hollow Elastomerfeder</p>	3.131		

3

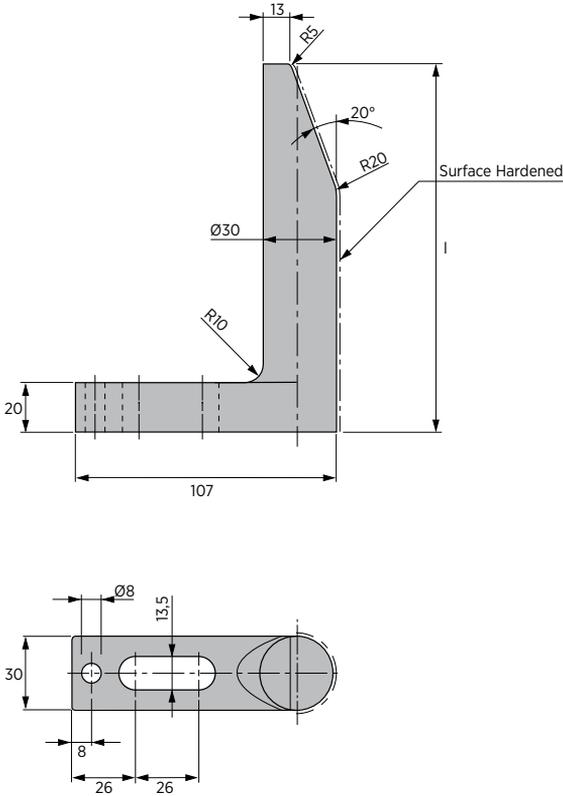
 Material :
 CK60
 Forged

 Different lengths on request;
 Max. Length: 350 mm


CODE	l
M301-00-065	65
M301-00-090	90
M301-00-120	120
M301-00-150	150
M301-00-180	180
M301-00-250	250
M301-00-300	300
M301-00-350	350

Order Example:
 l= 165

Order Code:
 M301-00-165


 Material :
 CK60
 Forged

 Hardened
 HRC 56 + 60

Different lengths on request;

Max. Length: 350 mm

CODE	I
M301-01-065	65
M301-01-090	90
M301-01-120	120
M301-01-150	150
M301-01-180	180
M301-01-250	250
M301-01-300	300
M301-01-350	350

Order Example:
 I= 165

Order Code:
 M301-01-165

3

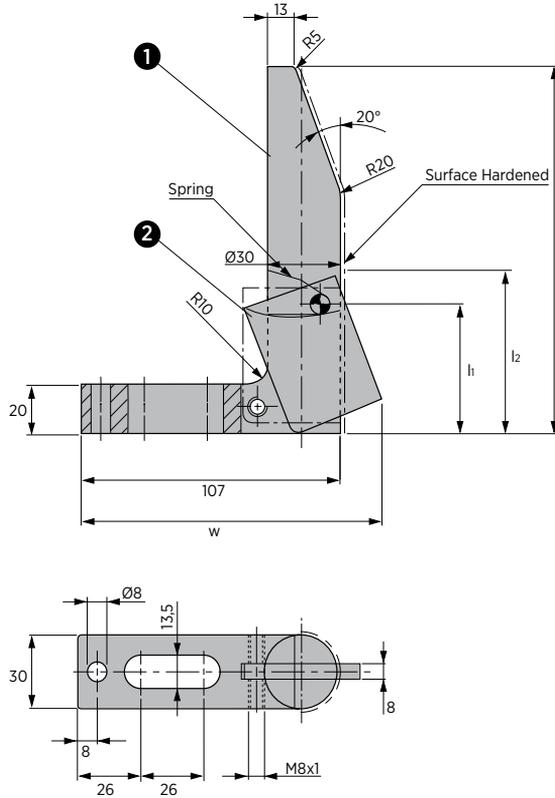

1 Material :
CK60
Forged



Hardened
HRC 50 ÷ 55

2 Material:
Plate
St37

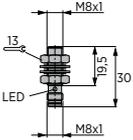
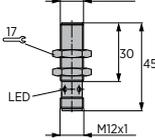
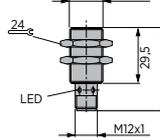
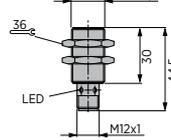
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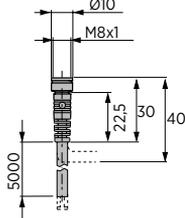
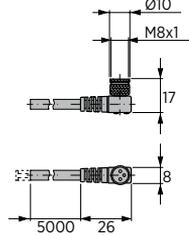
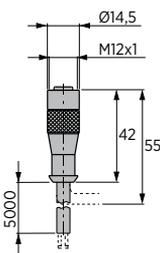
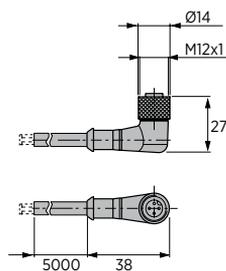


CODE	w	l	l ₁	l ₂
M301-02-120	120	120	55	70
M301-02-150	120	150	55	70
M301-02-180	124	180	105	120
M301-02-250	124	250	105	120
CODE	w	l	l ₁	l ₂
M301-02-I	120	121 ÷ 179	55	70
M301-02-I	124	181 ÷ 249	105	120

Order Example:
l = 165

Order Code:
M301-02-165

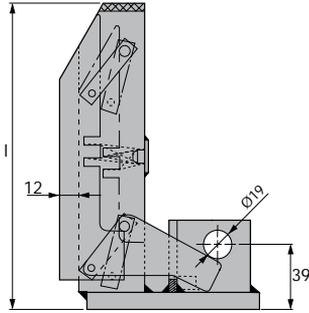
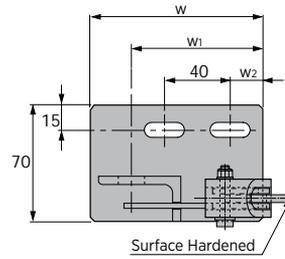
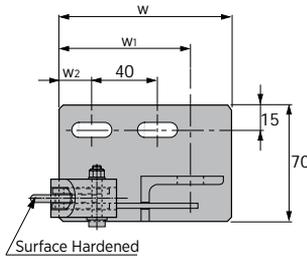
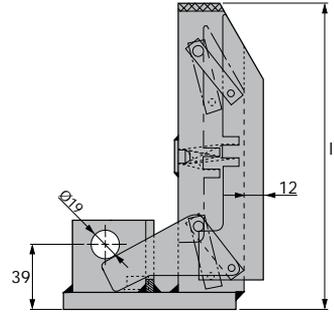
SENSORS
M301-03-01-001

M301-03-01-002

M301-03-01-003

M301-03-01-004

 Manufactured by
BALLUFF

3
CONNECTORS
M301-03-02-001

M301-03-02-002

M301-03-02-003

M301-03-02-004


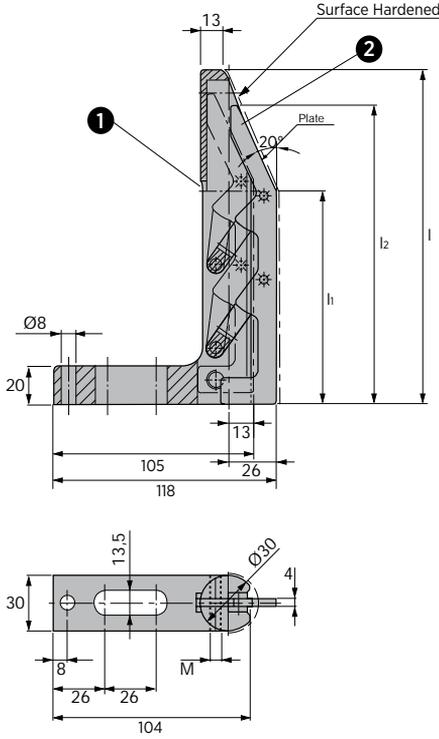
CODE	M301-03-01-001	M301-03-01-002	M301-03-01-003	M301-03-01-004
Rated operational voltage (Ue)	24 V DC	24 V DC	24 V DC	24 V DC
Supply voltage (Ub)	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
No load supply current (I _{o max.})	≤ 7 mA	≤ 10 mA	≤ 10 mA	≤ 25 mA
Residual current (I _r)	≤ 10 µA	≤ 50 µA	≤ 50 µA	≤ 80 µA
Repeat accuracy (R)	≤ 5 %	≤ 5 %	≤ 5 %	≤ 5 %
Ambient temperature range (T _a)	-40...+85° C	-25...+85° C	-25...+70° C	-25...+70° C
Frequency of operating cycles (f)	5000 Hz	2000 Hz	1000 Hz	150 Hz
Degree of protection per IEC 60529	IP 68	IP 68	IP 67	IP 67
Housing Material	Stainless Steel	Stainless Steel	Brass	Brass
Connection	Connector	Connector	Connector	Connector
Approval	CE/UL	CE/UL	CE/UL	CE/UL


3

 Material :
 Steel
 Hardened
 HRC 60 ± 62

Form - A

Form - B


CODE	Form	w	l	w ₁	w ₂
M301-04-0145001	A	105	145	80	25
M301-04-0145002	B	105	145	80	25
M301-04-0145030	A	101	145	76	21
M301-04-0145031	B	101	145	76	21
M301-04-0185003	A	105	185	80	25
M301-04-0185004	B	105	185	80	25
M301-04-0185032	A	101	185	76	21
M301-04-0185033	B	101	185	76	21
M301-04-0225005	A	105	225	80	25
M301-04-0225006	B	105	225	80	25
M301-04-0225034	A	101	225	76	21
M301-04-0225035	B	101	225	76	21



1 Material (Gage) :
CK60
Forged



Hardened
HRC 58 ÷ 60

2 Material (Plate) :
St37

Hardened
HRC 58 ÷ 60

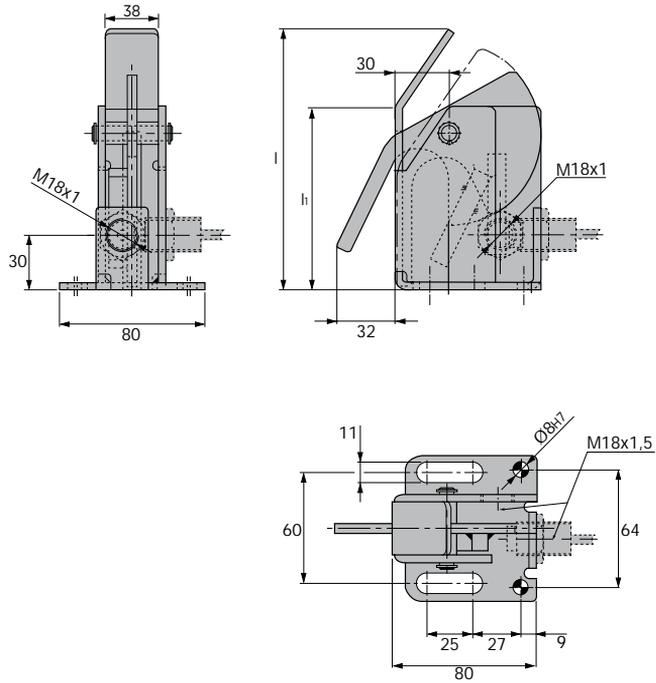
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CODE	l	h	l ₂	M
M301-05-120	120	78	113	M8x1
M301-05-120-002	120	78	113	M12x1
M301-05-150	150	90	130	M8x1
M301-05-150-002	150	90	130	M12x1
M301-05-180	180	114	160	M8x1
M301-05-180-002	180	114	160	M12x1
M301-05-250	250	114	160	M8x1
M301-05-250-002	250	114	160	M12x1
M301-05-250-003	250	184	230	M8x1
M301-05-250-004	250	184	230	M12x1

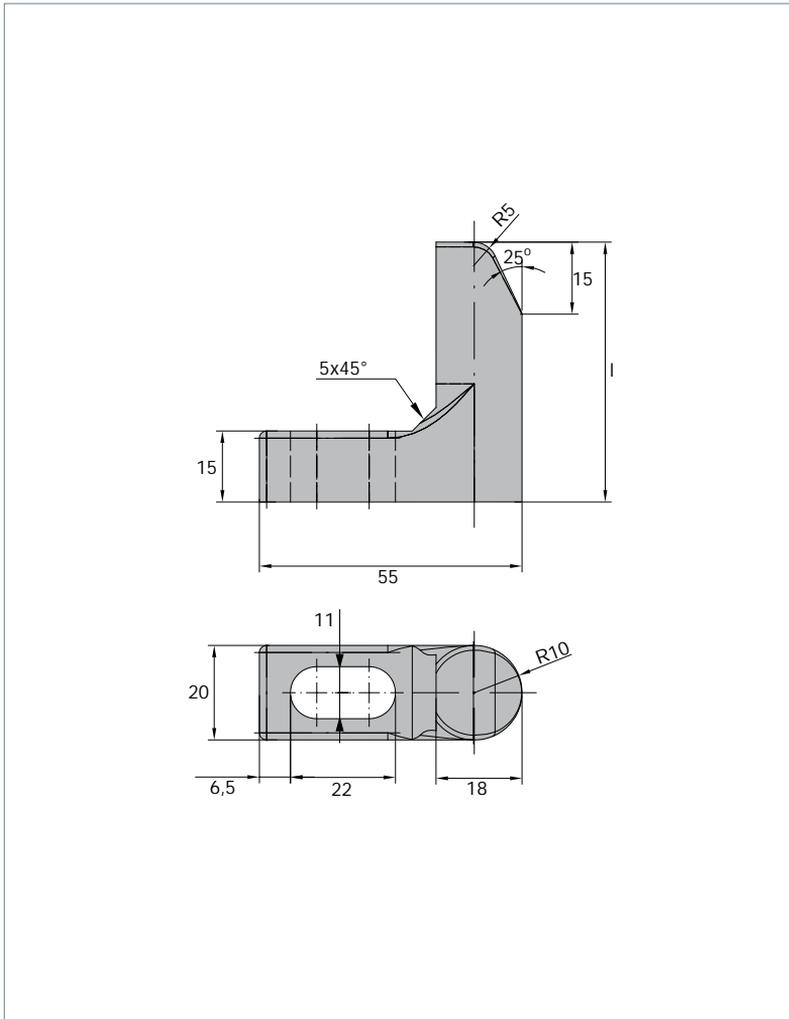
3

 Material :
 St37


Sensor not included.



CODE	l	h
M301-06-075-117	117	75
M301-06-100-142	142	100
M301-06-150-192	192	150


 Material :
 CK45
 Forged

3

CODE	I
M301-09-055	55
M301-09-065	65
M301-09-090	90
M301-09-095	95
M301-09-120	120

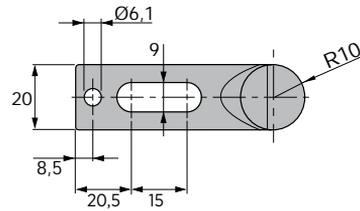
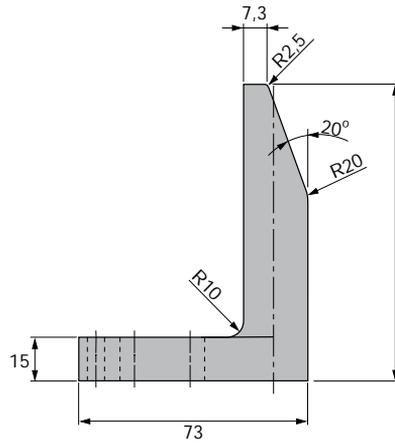
Order Example:
 I= 120

Order Code:
 M301-09-120

3

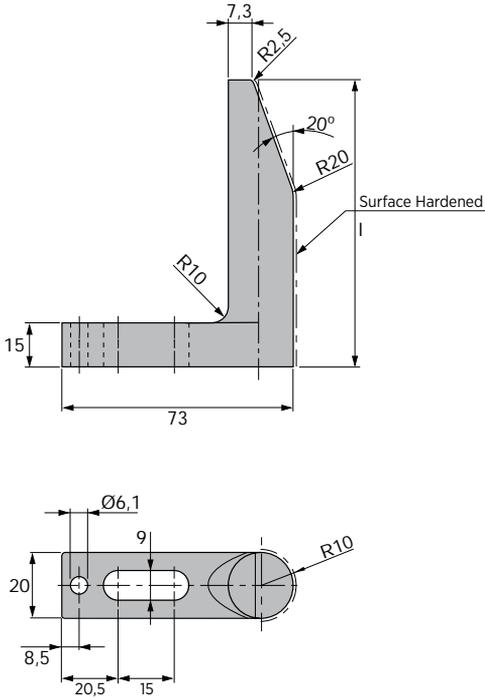


Material :
CK60
Forged



CODE	I
M301-10-065	65
M301-10-090	90


 Material :
 CK60
 Forged

 Hardened
 HRC 58 ÷ 60


CODE	I
M301-11-065	65
M301-11-090	90

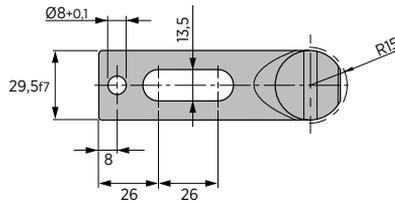
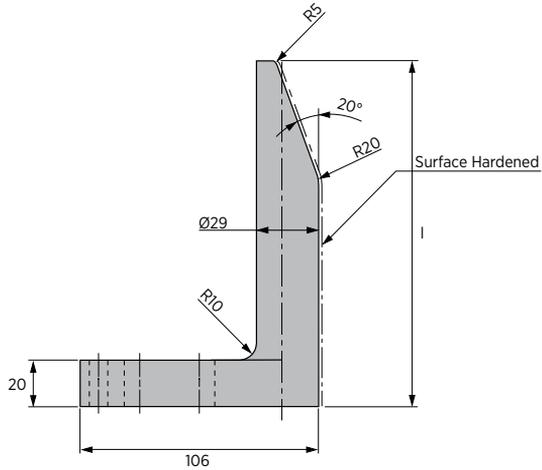
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 Material :
 CK60
 Forged

 Hardened
 HRC 58 ÷ 60

Different lengths on request;

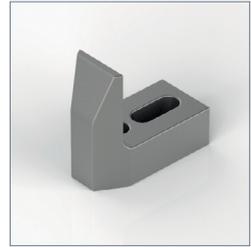
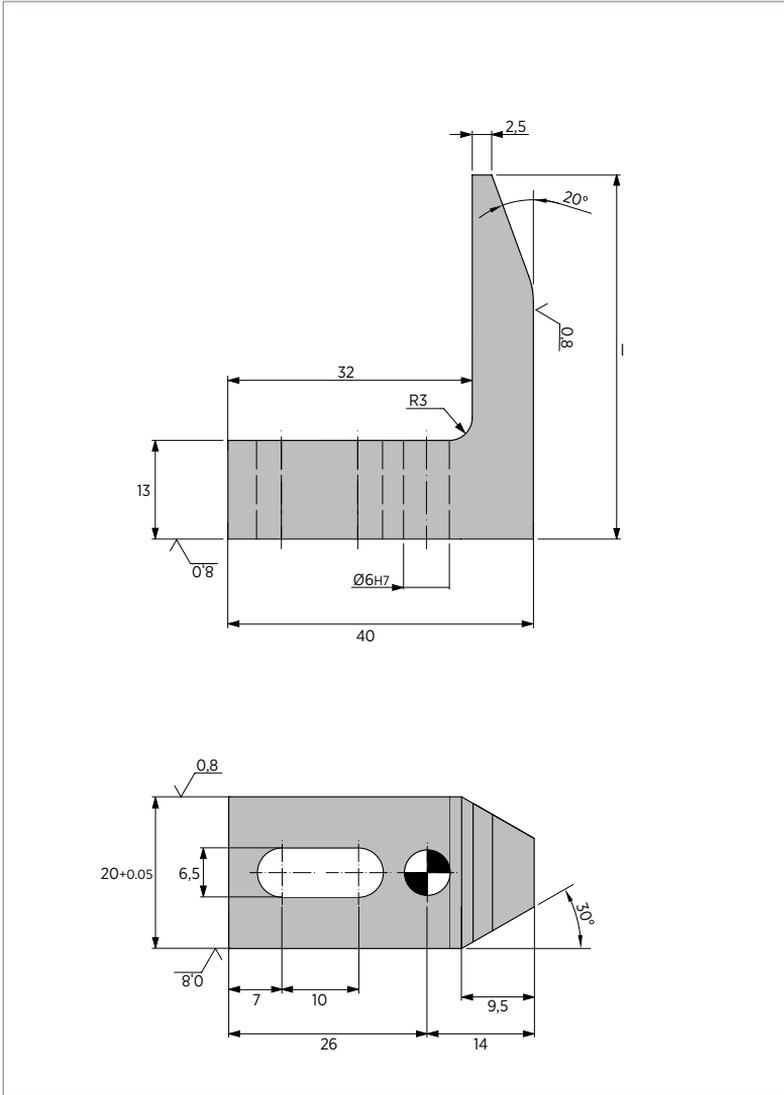
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M301-12-090	90
M301-12-120	120
M301-12-150	150
M301-12-180	180
M301-12-250	250
M301-12-300	300
M301-12-350	350

Order Example:
 I= 165

Order Code:
 M301-12-165


 Material :
 21MnCr5
 Hardened
 HRC 58 ÷ 60


3

CODE	l
M301-13-028	28
M301-13-038	38
M301-13-048	48
M301-13-058	58
M301-13-068	68
M301-13-078	78
M301-13-088	88


3

1 Material :
CK45
Hardened
HRC 58 ÷ 60

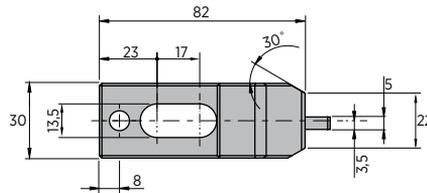
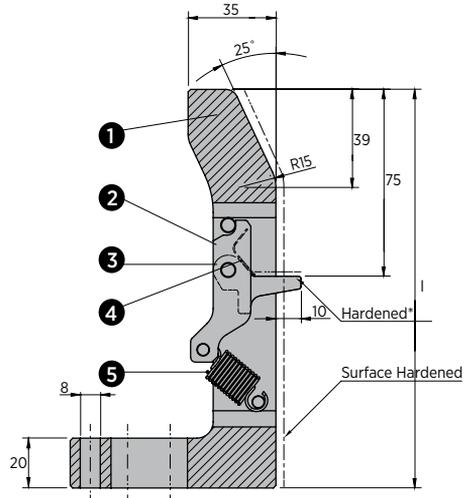


2 Material :
CK45
Hardened
HRC 54 ÷ 56

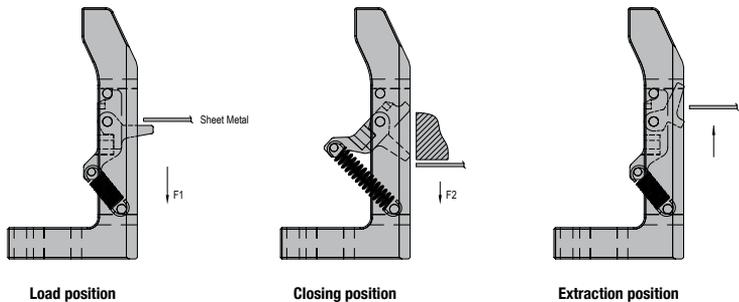
3 Material :
CK45
Hardened*
HRC 58 ÷ 60

4 Spring

5 Spring

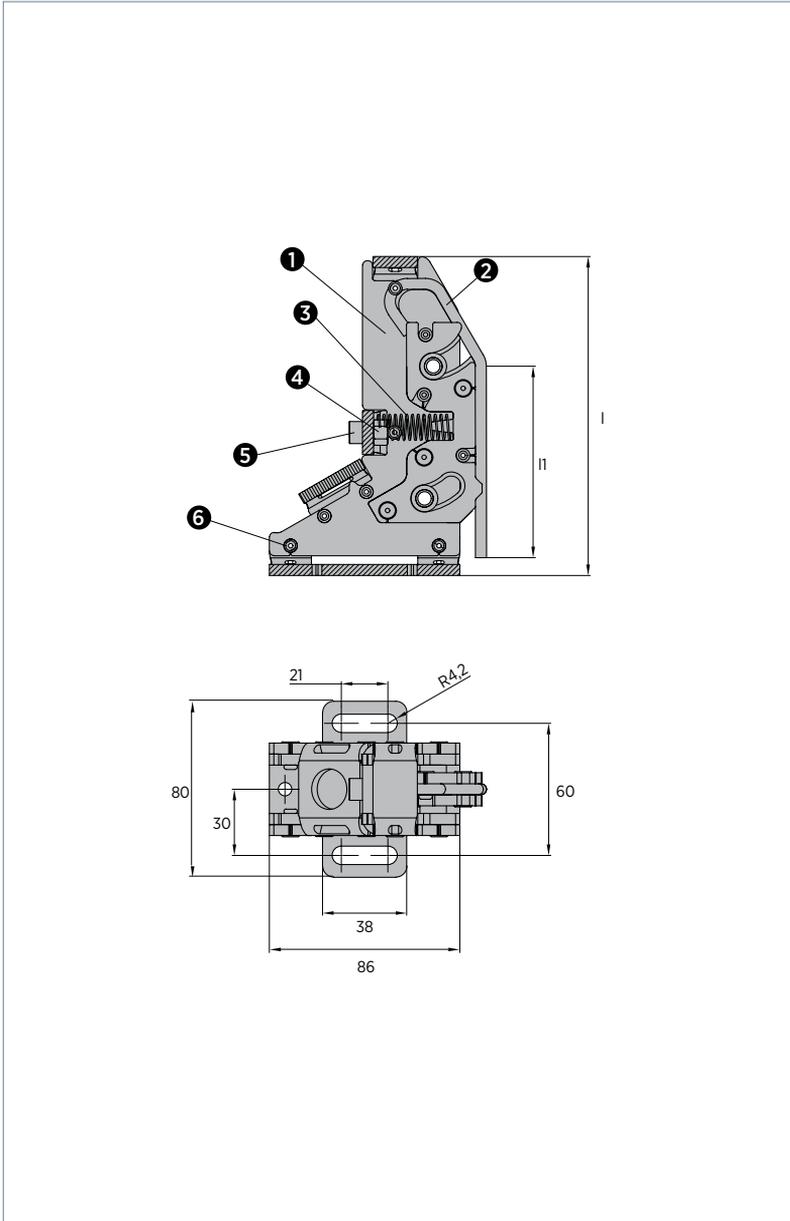


CODE	I	F1 (N)	F2 (N)
M301-14-160	160	5,90	18,50
M301-14-1601		10,00	30,00
M301-14-1602		22,00	65,00
M301-14-170	170	5,90	18,50
M301-14-1701		10,00	30,00
M301-14-1702		22,00	65,00
M301-14-180	180	5,90	18,50
M301-14-1801		10,00	30,00
M301-14-1802		22,00	65,00
M301-14-190	190	5,90	18,50
M301-14-1901		10,00	30,00
M301-14-1902		22,00	65,00
M301-14-200	200	5,90	18,50
M301-14-2001		10,00	30,00
M301-14-2002		22,00	65,00



Order Example:
I= 160, F1=10

Order Code:
M301-14-1601



- 1** Material : S235
- 2** Material : 1.4021
Hardened
HRC 40-45
- 3** Material : Spring DIN 2098
- 4** Material : M6 DIN 934
- 5** Material : Screw M6x12 ISO 4762
- 6** Material : Rivet Ø4x14 DIN 7337



CODE	11	I
M301-15-145	87	145
M301-15-185	127	185
M301-15-225	167	225

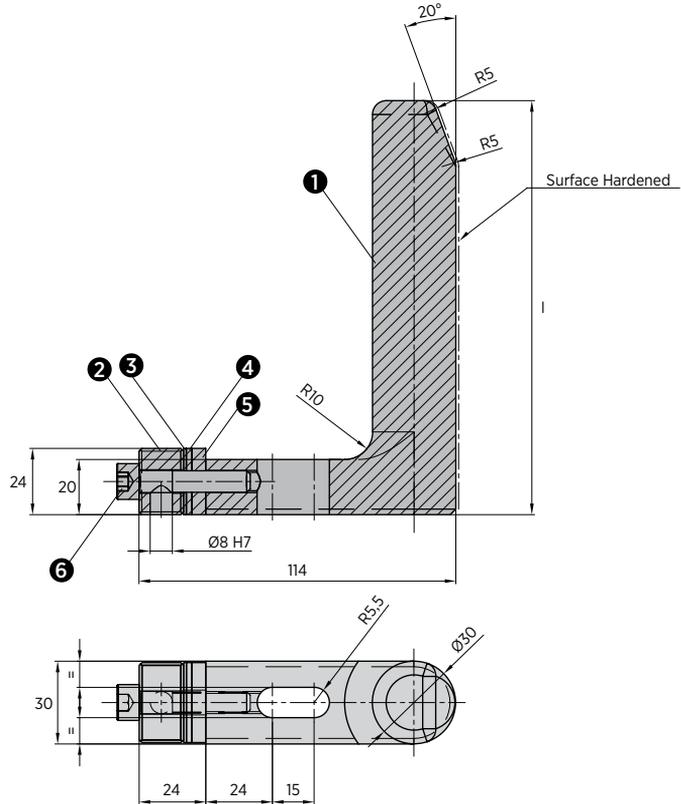

3
1 Material :
C45

2 Material :
C45

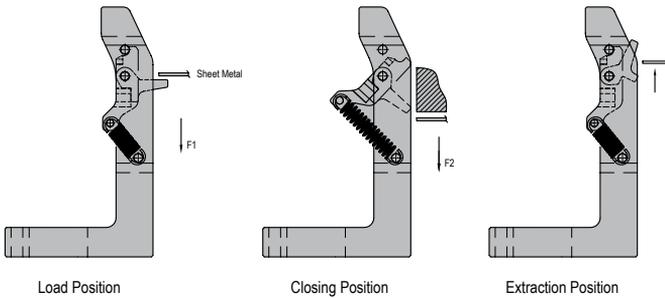
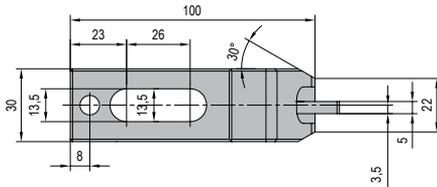
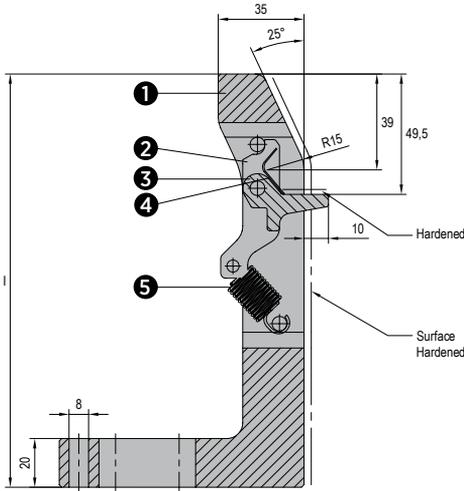
3 Material :
C15

4 Material :
C15

5 Material :
C15

6 Material :
C-M8X40-12,9


CODE	I
M301-16-065	65
M301-16-090	90
M301-16-120	120
M301-16-150	150
M301-16-190	190
M301-16-220	220



- 1 Material :
CK45
Hardened
HRC 58 ± 60
- 2 Material :
CK45
Hardened
HRC 54 ± 56
- 3 Material :
CK45
Hardened*
HRC 58 ± 60
- 4 Spring
- 5 Spring

CODE	I	F1 (N)	F2 (N)
M301-17-160	160	5,90	18,50
M301-17-1601		10,00	30,00
M301-17-1602		22,00	65,00
M301-17-170	170	5,90	18,50
M301-17-1701		10,00	30,00
M301-17-1702		22,00	65,00
M301-17-180	180	5,90	18,50
M301-17-1801		10,00	30,00
M301-17-1802		22,00	65,00
M301-17-190	190	5,90	18,50
M301-17-1901		10,00	30,00
M301-17-1902		22,00	65,00
M301-17-200	200	5,90	18,50
M301-17-2001		10,00	30,00
M301-17-2002		22,00	65,00
M301-17-210	210	5,90	18,50
M301-17-2101		10,00	30,00
M301-17-2102		22,00	65,00
M301-17-250	250	5,90	18,50
M301-17-2501		10,00	30,00
M301-17-2502		22,00	65,00
M301-17-300	300	5,90	18,50
M301-17-3001		10,00	30,00
M301-17-3002		22,00	65,00

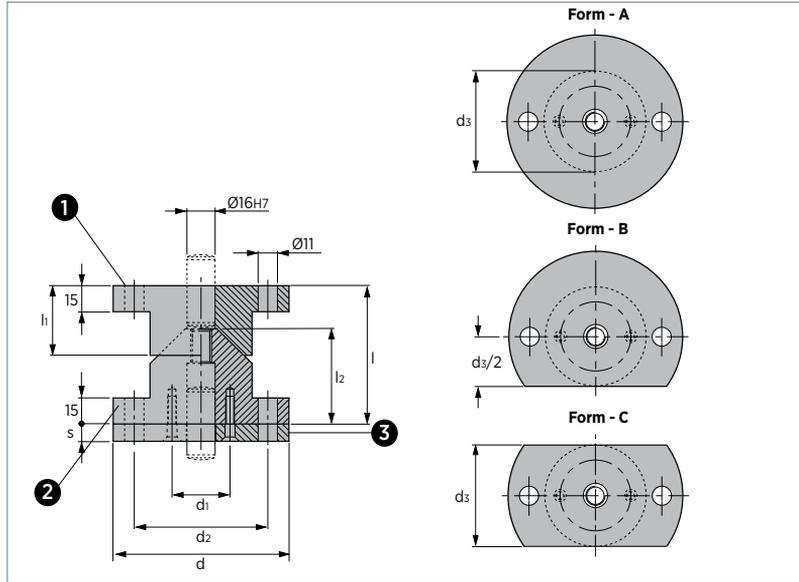
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Order Code:
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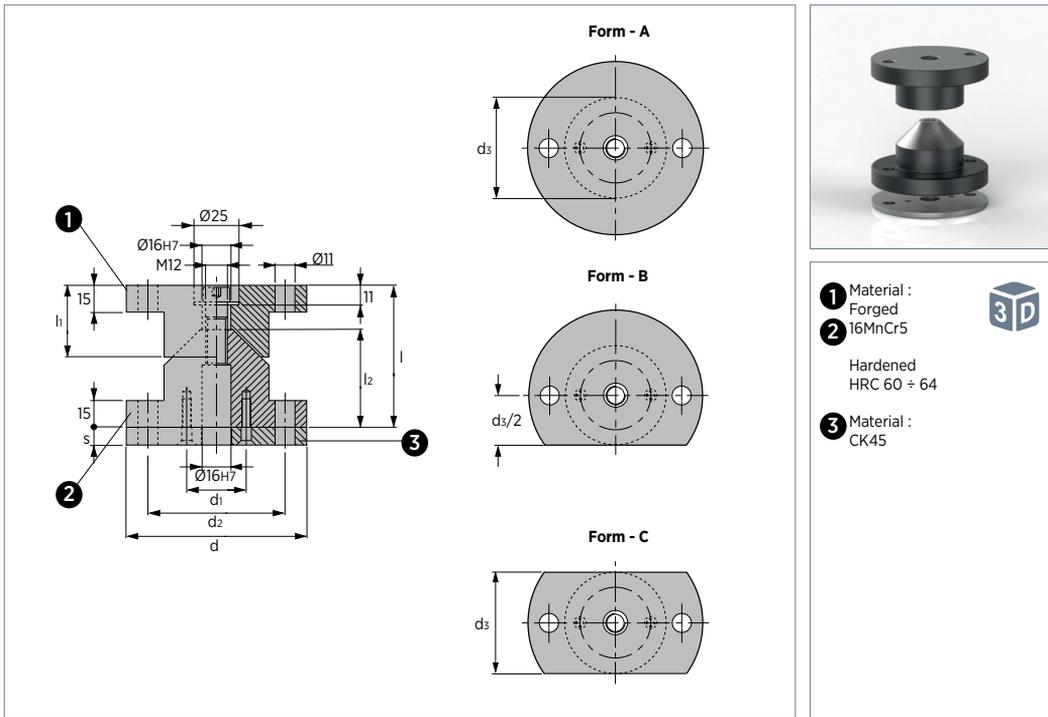
3


1 Material :
 Forged
 16MnCr5
 Hardened
 HRC 60 ± 64

2 Material :
 CK45



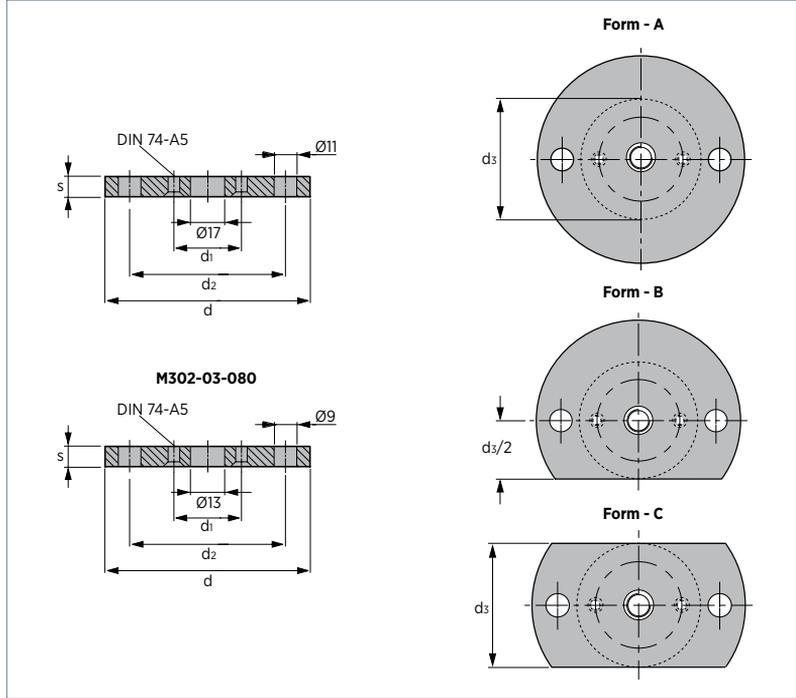
CODE	Form	d	l ±0,05	l ₁	l ₂	d ₁	d ₂	d _s	s +0,1
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M302-01-100-001	A	100	80	40	55	40,5	76	58	10,5
M302-01-100-002	C	100	80	40	55	40,5	76	58	10,5
M302-01-100-003	B	100	80	40	55	40,5	76	58	10,5
M302-01-100-100	B	100	80	40	55	40,5	76	58	5
M302-01-100-005	A	100	80	40	55	40,5	76	58	5,5
M302-01-100-010	A	100	80	40	55	40,5	76	58	9,8
M302-01-100-105	B	100	80	40	55	40,5	76	58	5,5
M302-01-100-110	B	100	80	40	55	40,5	76	58	9,8
M302-01-100-200	C	100	80	40	55	40,5	76	58	5
M302-01-100-205	C	100	80	40	55	40,5	76	58	5,5
M302-01-100-210	C	100	80	40	55	40,5	76	58	9,8
M302-01-120-000	A	120	90	50	65	50,5	96	78	5
M302-01-120-001	A	120	90	50	65	50,5	96	78	10,5
M302-01-120-002	C	120	90	50	65	50,5	96	78	10,5
M302-01-120-003	B	120	90	50	65	50,5	96	78	10,5
M302-01-120-005	A	120	90	50	65	50,5	96	78	5,5
M302-01-120-010	A	120	90	50	65	50,5	96	78	9,8
M302-01-120-105	B	120	90	50	65	50,5	96	78	5,5
M302-01-120-100	B	120	90	50	65	50,5	96	78	5
M302-01-120-110	B	120	90	50	65	50,5	96	78	9,8
M302-01-120-205	C	120	90	50	65	50,5	96	78	5,5
M302-01-120-210	C	120	90	50	65	50,5	96	78	9,8



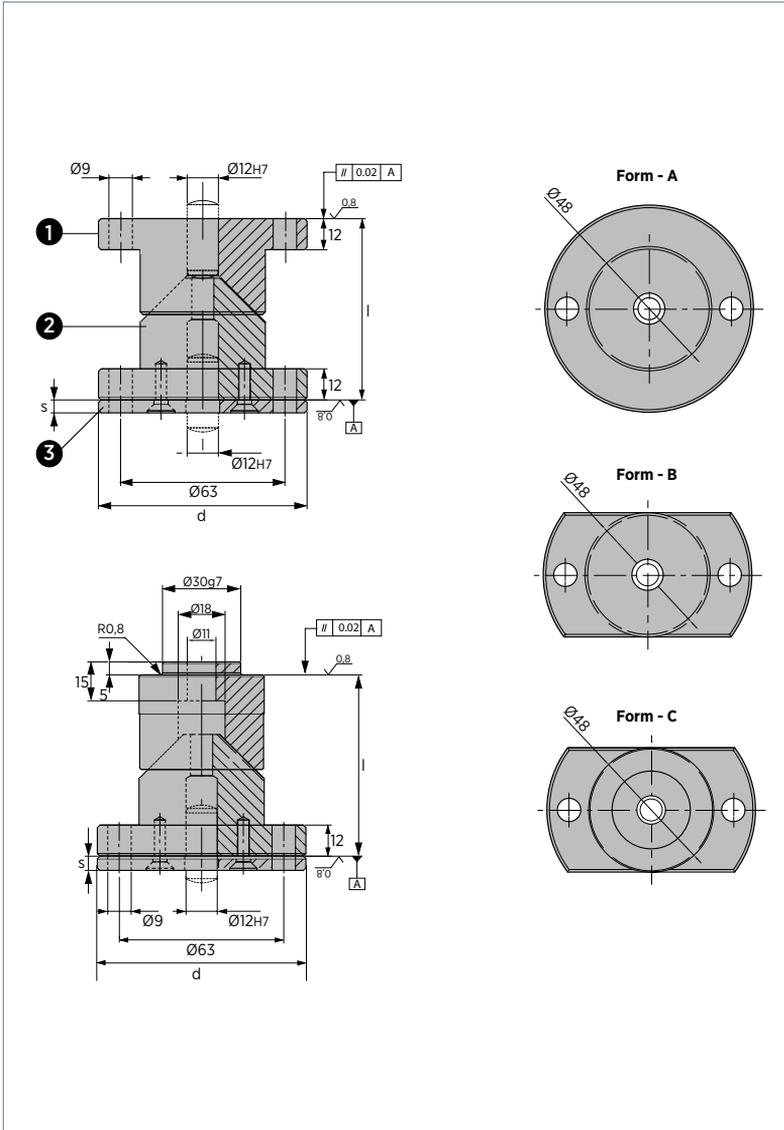
3

CODE	Form	d	l ±0,05	h ₁	h ₂	d ₁	d ₂	d _s	s ±0,1
M302-02-100-005	A	100	80	40	55	40,5	76	58	5,5
M302-02-100-010	A	100	80	40	55	40,5	76	58	9,8
M302-02-100-015	A	100	80	40	55	40,5	76	58	10,5
M302-02-100-105	B	100	80	40	55	40,5	76	58	5,5
M302-02-100-110	B	100	80	40	55	40,5	76	58	9,8
M302-02-100-115	B	100	80	40	55	40,5	76	58	10,5
M302-02-100-205	C	100	80	40	55	40,5	76	58	5,5
M302-02-100-210	C	100	80	40	55	40,5	76	58	9,8
M302-02-100-215	C	100	80	40	55	40,5	76	58	10,5
M302-02-120-005	A	120	90	50	65	50,5	96	78	5,5
M302-02-120-010	A	120	90	50	65	50,5	96	78	9,8
M302-02-120-015	A	120	90	50	65	50,5	96	78	10,5
M302-02-120-105	B	120	90	50	65	50,5	96	78	5,5
M302-02-120-110	B	120	90	50	65	50,5	96	78	9,8
M302-02-120-115	B	120	90	50	65	50,5	96	78	10,5
M302-02-120-205	C	120	90	50	65	50,5	96	78	5,5
M302-02-120-210	C	120	90	50	65	50,5	96	78	9,8
M302-02-120-215	C	120	90	50	65	50,5	96	78	10,5

3

 Material :
 CK45


CODE	Form	d	d ₁	d ₂	d _s	s +0,1
M302-03-080-005	A	80	32	63	48	5
M302-03-080-055	A	80	32	63	48	5,5
M302-03-080-105	C	80	32	63	48	5
M302-03-080-155	C	80	32	63	48	5,5
M302-03-100-005	A	100	40,5	76	58	5,5
M302-03-100-010	A	100	40,5	76	58	9,8
M302-03-100-105	B	100	40,5	76	58	5,5
M302-03-100-110	B	100	40,5	76	58	9,8
M302-03-100-205	C	100	40,5	76	58	5,5
M302-03-100-210	C	100	40,5	76	58	9,8
M302-03-100-215	C	100	40,5	76	58	10,5
M302-03-120-005	A	120	50,5	96	78	5,5
M302-03-120-010	A	120	50,5	96	78	9,8
M302-03-120-105	B	120	50,5	96	78	5,5
M302-03-120-110	B	120	50,5	96	78	9,8
M302-03-120-205	C	120	50,5	96	78	5,5
M302-03-120-210	C	120	50,5	96	78	9,8
M302-03-120-215	C	120	50,5	96	78	10,5



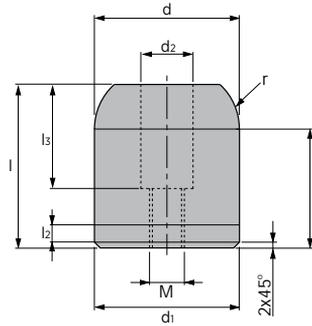
- 1** Material :
Forged
- 2** 16MnCr5
- Hardened
HRC 60 ÷ 62
- 3** Material :
CK45



3

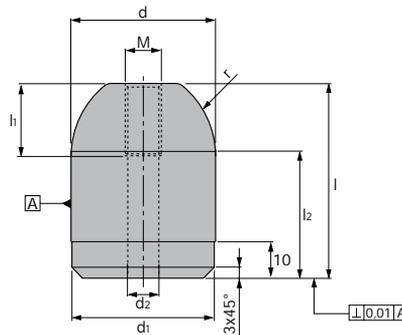
CODE	Form	d	s	l ±0,05
M302-08-080-005	A	80	5	70
M302-08-080-055	A	80	5,5	70
M302-08-080-105	B	80	5	70
M302-08-080-155	B	80	5,5	70
M302-08-080-205	C	80	5	70
M302-08-080-255	C	80	5,5	70


 Material :
 16MnCr5

 Hardened
 HRC 58 ± 60


CODE	d j6	d1 -0,05 / -0,1	l	l1	l2	l3	d2 ±0,2	M	r
M303-01-022045	22	22	45	37,5	8	25	14	M10	12,5
M303-01-032050	32	32	50	40	10	35	18	M12	20
M303-01-040055	40	40	55	40	10	35	18	M12	20
M303-01-050055	50	50	55	40	10	35	18	M12	20


 Material :
 16MnCr5

 Hardened
 HRC 58 ± 60


CODE	d h6	l	l1	l2	d1 -0,05	d2	M	r
M303-02-022045	22	45	16	35	22	7	M8	15
M303-02-022055	22	55	16	45	22	7	M8	15
M303-02-032050	32	50	20	35	32	9	M10	20
M303-02-040055	40	55	20	35	40	9	M10	25
M303-02-040065	40	65	20	45	40	9	M10	25
M303-02-040085	40	85	20	65	40	9	M10	25
M303-02-050055	50	55	20	35	50	9	M10	25
M303-02-056080	56	80	20	60	56	9	M10	30

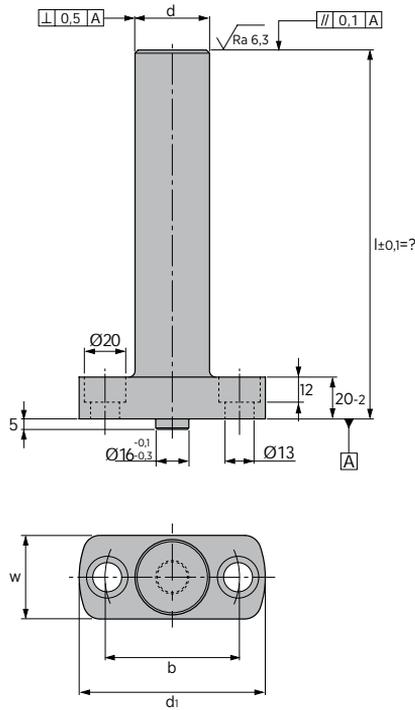


Material :
 CK45
 Forged
 $800 \div 1000 \text{ N/mm}^2$



Length (l) is given by the customer;

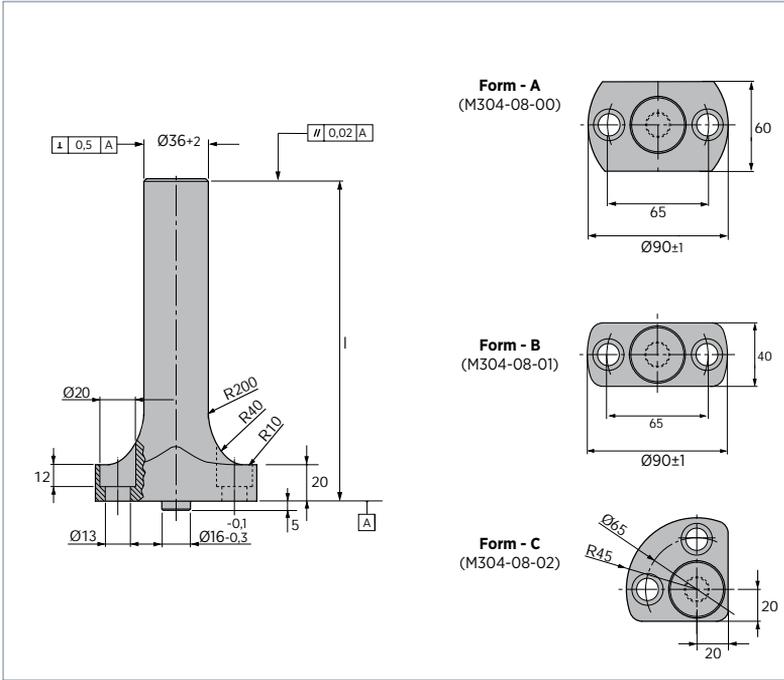
Max. Length: 360 mm



CODE	d +2	w	b	d1 ±1	Max. Load (kN)
M304-01-036-l	36	40	65	90	50
M304-01-045-l	45	50	75	100	70

Order Example:
 d= 36, l= 205

Order Code:
 M304-01-036-205



Material :
 42CrMo4+QT
 Forged
 800 ÷ 1000 N/mm²



Different lengths on request;
 Max. Length: 360 mm



CODE	l ±0,05	Max. Load (kN)
M304-08-??-150	150	50
M304-08-??-155	155	50
M304-08-??-160	160	50
M304-08-??-165	165	50
M304-08-??-170	170	50
M304-08-??-175	175	50
M304-08-??-180	180	50
M304-08-??-185	185	50
M304-08-??-190	190	50
M304-08-??-195	195	50
M304-08-??-200	200	50
M304-08-??-205	205	50

CODE	l ±0,05	Max. Load (kN)
M304-08-??-210	210	50
M304-08-??-215	215	50
M304-08-??-220	220	50
M304-08-??-225	225	50
M304-08-??-230	230	50
M304-08-??-235	235	50
M304-08-??-240	240	50
M304-08-??-245	245	50
M304-08-??-250	250	50
M304-08-??-255	255	50
M304-08-??-260	260	50
M304-08-??-265	265	50

CODE	l ±0,05	Max. Load (kN)
M304-08-??-270	270	50
M304-08-??-275	275	50
M304-08-??-280	280	50
M304-08-??-285	285	50
M304-08-??-290	290	50
M304-08-??-295	295	50
M304-08-??-300	300	50
M304-08-??-310	310	50
M304-08-??-320	320	50
M304-08-??-330	330	50
M304-08-??-340	340	50
M304-08-??-350	350	50
M304-08-??-360	360	50

Order Example:
 Form= A, l= 205

Order Code:
 M304-08-00-205

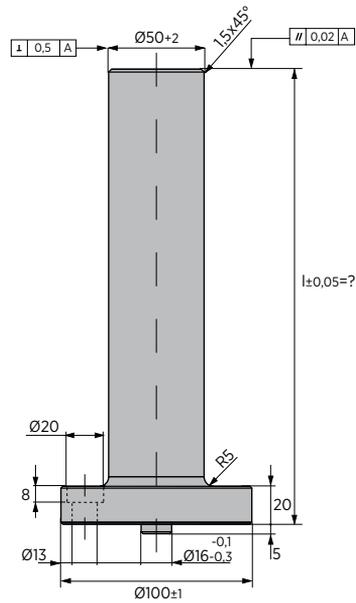
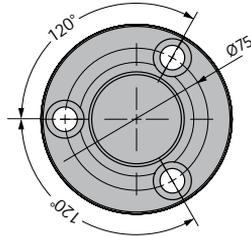
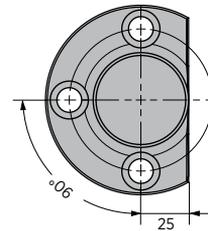


Material :
 CK45
 Forged
 $800 \div 1000 \text{ N/mm}^2$



Length (l) is given by the customer;

Max. Length: 600 mm

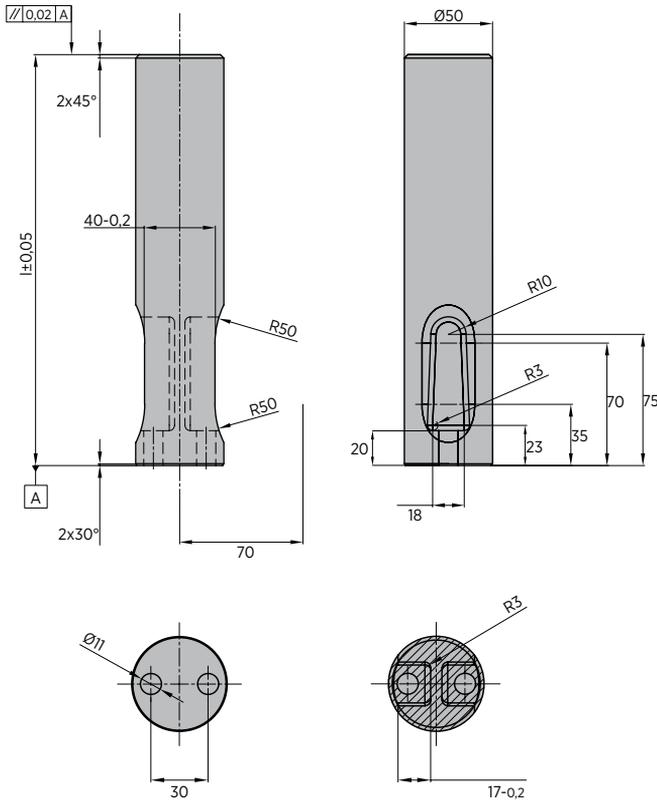

Form - A

Form - B


CODE	Form	Max. Load (kN)
M304-09-00-1	A	80
M304-09-01-1	B	80

Order Example:
 Form= A, l= 220

Order Code:
 M304-09-00-220


 Material:
 1.7227 (42CrMoS4+QT)

3


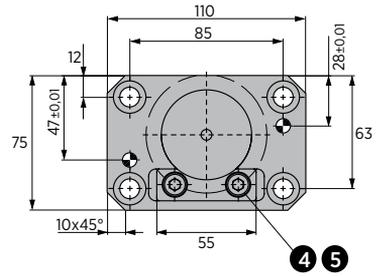
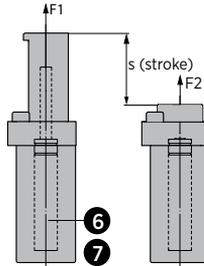
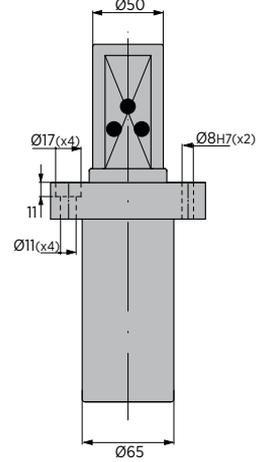
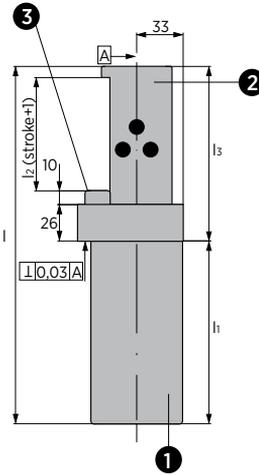
CODE	Max. Load (kN)
M304-10-L	80

Order Example:
 l= 220

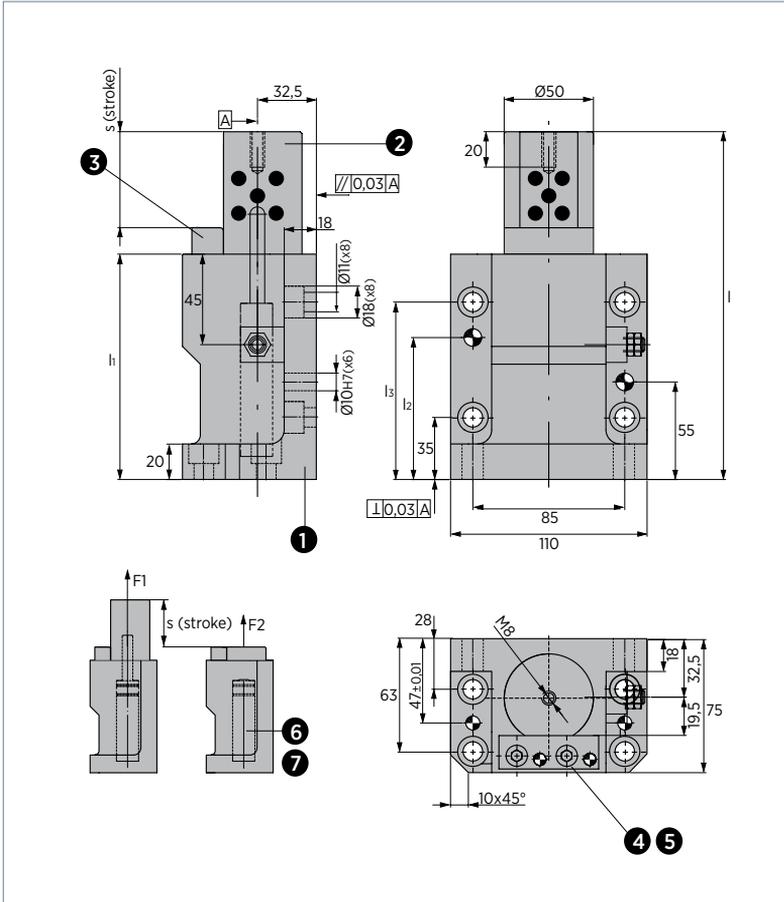
Order Code:
 M304-10-220


3

- 1** Material : CK45
- 2** Material : Bronze + Graphite
HB > 190
- 3** Material : 36NiCrMo4
- 4** M8x30 DIN 912
- 5** Schnorr Ø8
- 6** Gas Spring
- 7** M6x12 DIN 7991



CODE	l	h	lz	ls	F1 (daN)	F2 (daN)	s
M305-06-50050	196	101	51	95	50	86	50
M305-06-50100	196	101	51	95	100	172	50
M305-06-50150	196	101	51	95	150	258	50
M305-06-50200	196	101	51	95	200	344	50
M305-06-80050	256	131	81	125	50	86	80
M305-06-80100	256	131	81	125	100	172	80
M305-06-80150	256	131	81	125	150	258	80
M305-06-80200	256	131	81	125	200	344	80



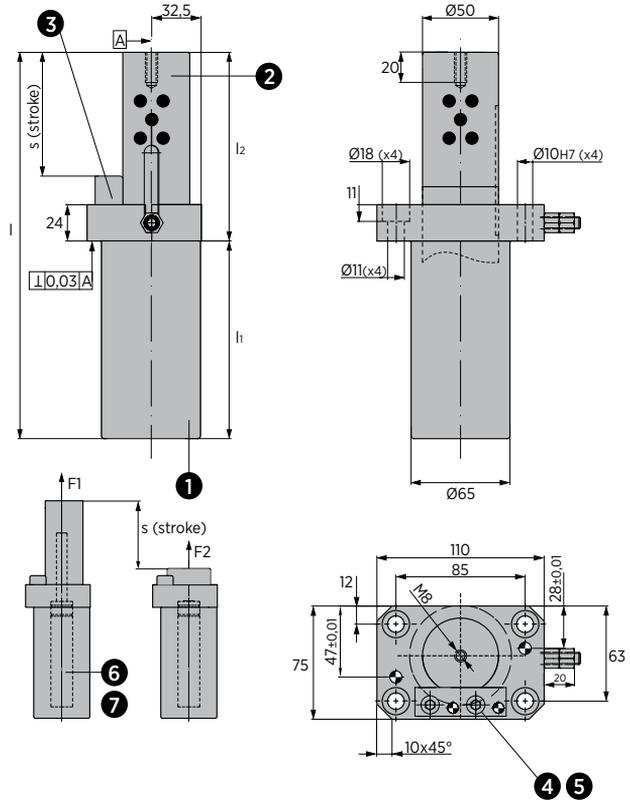
- 1 Material : CK45
- 2 Material : Bronze + Graphite
HB > 190
- 3 Material : 36NiCrMo4
- 4 M8x30 DIN 912
- 5 Schnorr Ø8
- 6 Gas Spring
- 7 M6x12 DIN 7991



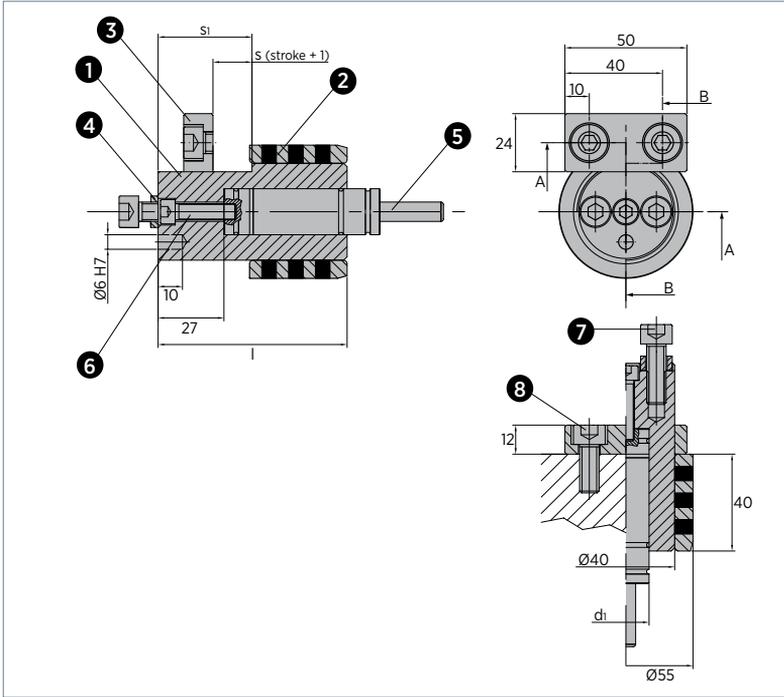
CODE	l	h	l ₂	l ₃	F1 (daN)	F2 (daN)	s
M305-07-50050	196	125	80	100	50	65	50
M305-07-50100	196	125	80	100	100	135	50
M305-07-50150	196	125	80	100	150	200	50
M305-07-50200	196	125	80	100	200	260	50
M305-07-80050	256	155	110	130	50	65	80
M305-07-80100	256	155	110	130	100	135	80
M305-07-80150	256	155	110	130	150	200	80
M305-07-80200	256	155	110	130	200	260	80
M305-07-100050	296	175	130	150	50	65	100
M305-07-100100	296	175	130	150	100	135	100
M305-07-100150	296	175	130	150	150	200	100
M305-07-100200	296	175	130	150	200	260	100


3

- 1** Material : CK45
- 2** Material : Bronze + Graphite
HB > 190
- 3** Material : 36NiCrMo4
- 4** M8x30 DIN 912
- 5** Schnorr Ø8
- 6** Gas Spring
- 7** M6x12 DIN 7991



CODE	l	h	l ₂	F ₁ (daN)	F ₂ (daN)	s
M305-08-50050	196	101	95	50	65	50
M305-08-50100	196	101	95	100	135	50
M305-08-50150	196	101	95	150	200	50
M305-08-50200	196	101	95	200	260	50
M305-08-80050	256	131	125	50	65	80
M305-08-80100	256	131	125	100	135	80
M305-08-80150	256	131	125	150	200	80
M305-08-80200	256	131	125	200	260	80
M305-08-100050	296	151	145	50	65	100
M305-08-100100	296	151	145	100	135	100
M305-08-100150	296	151	145	150	200	100
M305-08-100200	296	151	145	200	260	100


1 Material :
16MnCr5

 Hardened
HRC 54 ÷ 56

2 Material (Bush Self-lubricating) :
Bronze + Graphite
HB > 190

3 Retainer (2.172.472)

4 Material (Locating Ring) :
115CrV3

5 Gas Spring

6 M6x25 DIN 912

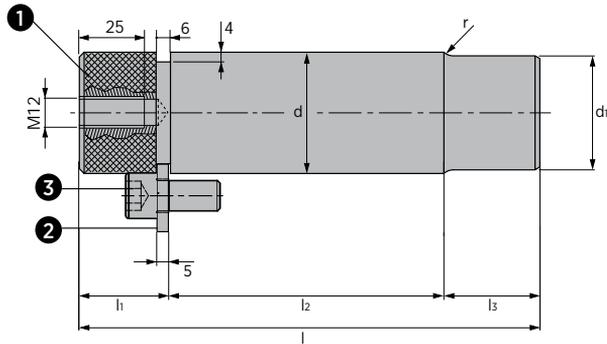
7 M8x25 DIN 912

8 M8x20 DIN 912

CODE	d ₁ +1 / +1,5	l ±0,1	s	s ₁
M305-09-010090	19	64	9	25
M305-09-010200	25	64	9	25
M305-09-015090	19	68,5	13,5	29,5
M305-09-015200	25	68,5	13,5	29,5
M305-09-025090	19	77,5	22,5	38,5
M305-09-025200	25	77,5	22,5	38,5
M305-09-038090	19	89	34	50
M305-09-038200	25	89	34	50
M305-09-050090	19	100	45	63
M305-09-050200	25	100	45	63
M305-09-063090	19	113,5	58,5	74,5
M305-09-063200	25	113,5	58,5	74,5
M305-09-080090	19	130	75	91
M305-09-080200	25	130	75	91
M305-09-100090	19	150	95	111
M305-09-100200	25	150	95	111
M305-09-125090	19	175	120	136
M305-09-125200	25	175	120	136


3

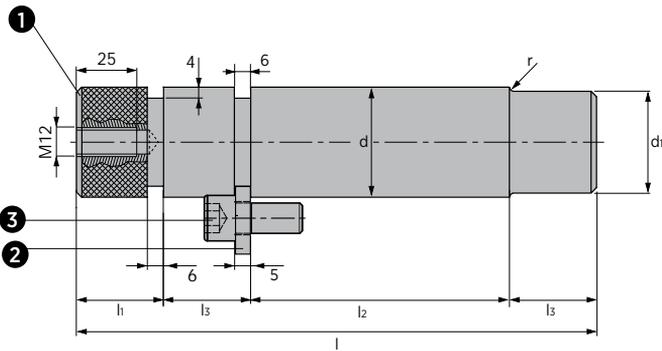
- 1 Material :
42CrMo4
800 ÷ 1000 N/mm²
- 2 Material :
CK45
Washer: 5xØ13,2xØ30
- 3 Screw: M12x20 DIN 912



CODE	d _{e8}	l	l ₁	l ₂	l ₃	d ₁ +0,05	r	Dynamic load (kN)
M306-02-032105	32	105	22	58	25	29	4	3
M306-02-032122	32	122	22	75	25	29	4	3
M306-02-040139	40	139	32	75	32	37	5	5
M306-02-040159	40	159	32	95	32	37	5	5
M306-02-050167	50	167	32	95	40	47	6	7,5
M306-02-050192	50	192	32	120	40	47	6	7,5
M306-02-063202	63	202	32	120	50	60	6	12,5
M306-02-063237	63	237	32	155	50	60	6	12,5



3



- 1** Material :
42CrMo4
800 ÷ 1000 N/mm²
- 2** Material :
CK45
Washer: 5xØ13,2xØ30
- 3** Screw: M12x20 DIN 912

CODE	d _{e8}	l	h ₁	l ₂	l ₃	d ₁ +0,05	r	Dynamic load (kN)
M306-03-032130	32	130	22	58	25	29	4	3
M306-03-032147	32	147	22	75	25	29	4	3
M306-03-040171	40	171	32	75	32	37	5	5
M306-03-040191	40	191	32	95	32	37	5	5
M306-03-050207	50	207	32	95	40	47	6	7,5
M306-03-050232	50	232	32	120	40	47	6	7,5
M306-03-063252	63	252	32	120	50	60	6	12,5
M306-03-063287	63	287	32	155	50	60	6	12,5

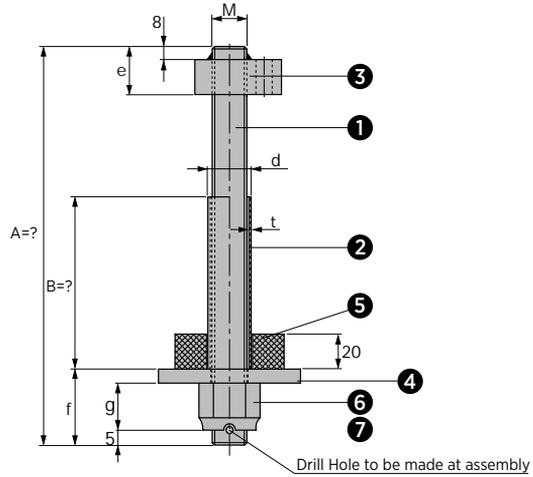
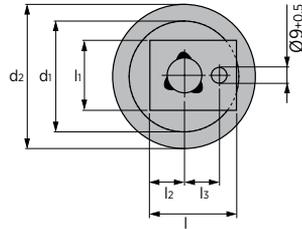
3


- 1 Material: 36NiCrMo4
- 2 3 Material: St37
- 4 Material: CK45
- 5 Elastomer 92SH
- 6 DIN 935 cl. 8.8
- 7 DIN 94



A and B are given by the customer.

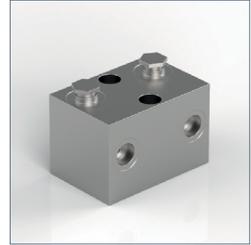
*Respect the max. load.

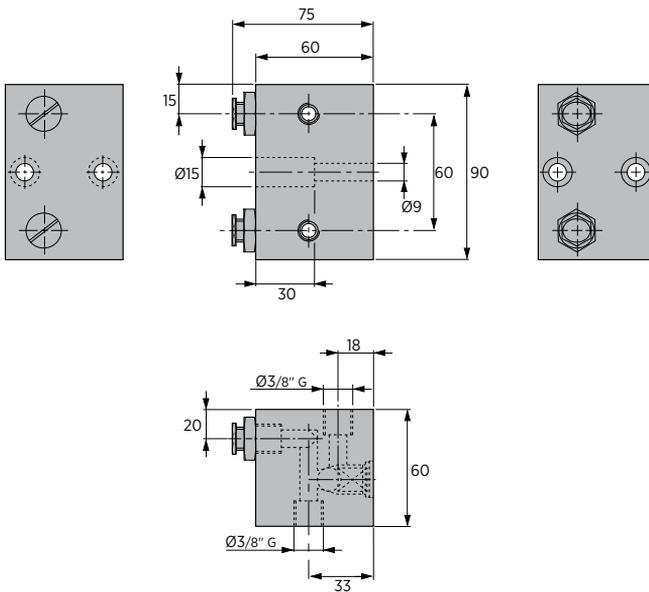


CODE	dxt	l	li	l2	l3 ±0,5	d1	d2	e	f	g	M	Max. Load (kg)
M307-01-16AAABBB	22x2	50	35	20	20	50	65	28	30	19	M16	250
M307-01-20AAABBB	25x2	50	40	20	20	63	82	28	35	22	M20	450
M307-01-24AAABBB	30x2,5	50	45	20	20	80	105	28	42	27	M24	750
M307-01-30AAABBB	38x3,5	63	50	28	26	100	130	33	50	33	M30	1250

Order Example:
 M= 20, A= 247, B= 110

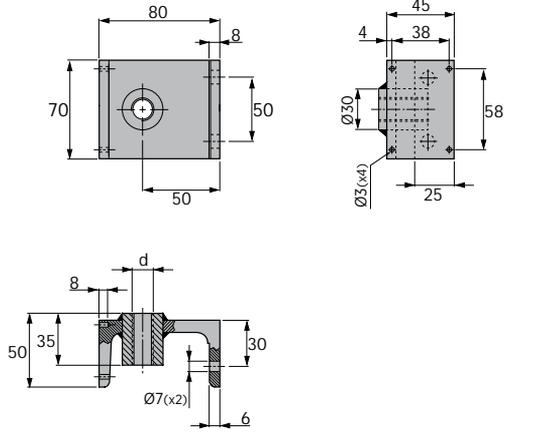
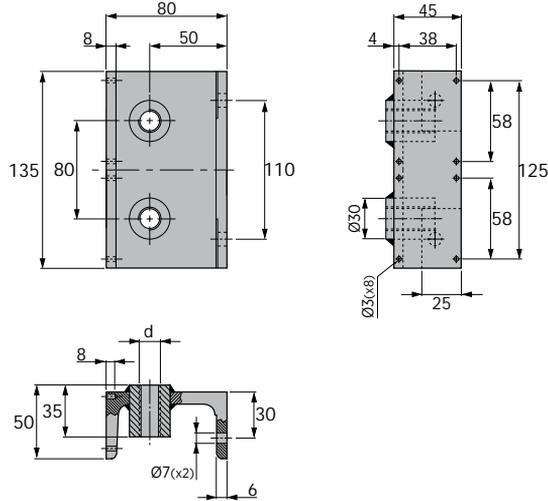
Order Code:
 M307-01-20247110


 Material:
 CK45

3

CODE
M308-01-090-060

3

 Material :
 St 37

Form - A

Form - B


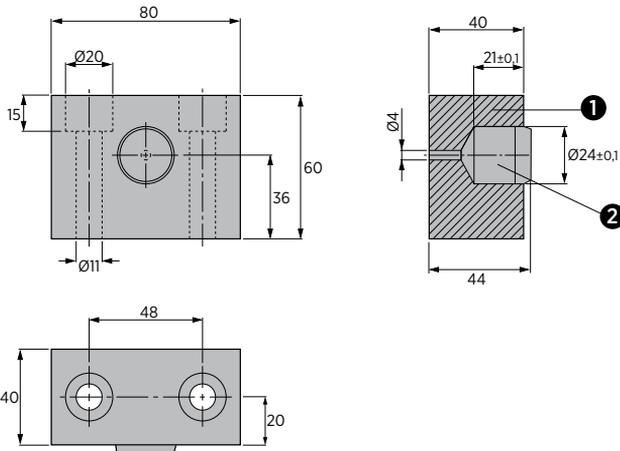
CODE	Form	d
M308-07-080070	A	G 3/8"
M308-07-080135	B	G 1/4"



1 Material :
CK45

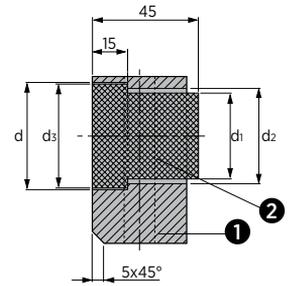
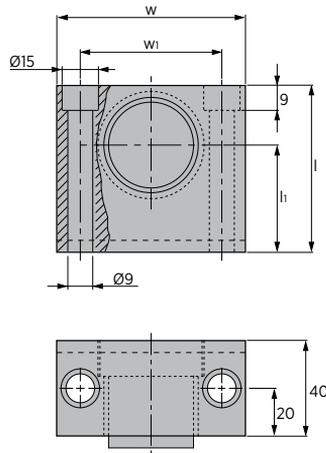


2 Elastomer 92 Shore

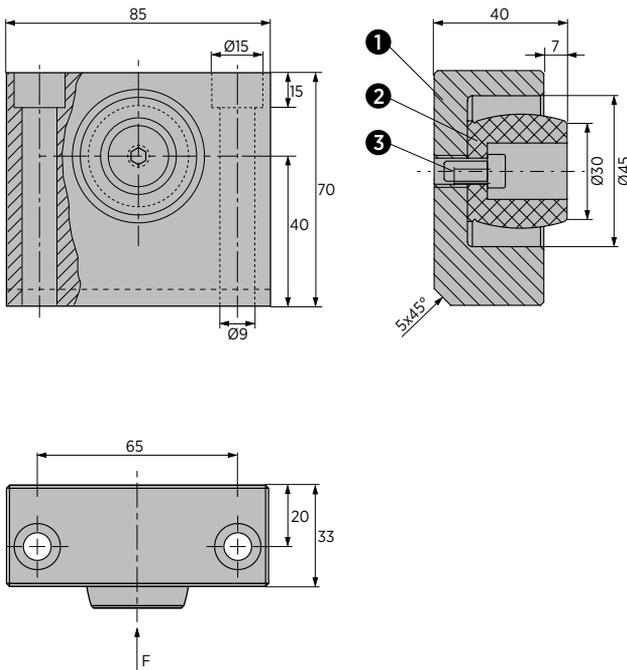
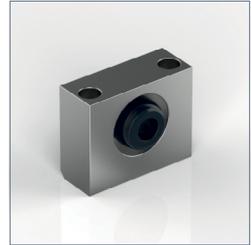


CODE	Fmax. (kN)	Max. Energy Absorbed (J)
M309-02-040080	3	4,8


3
1 Material :
CK45

2 Elastomer 90 Shore


CODE	w	d	l	h	w ₁	d ₁	d ₂	d ₃	F _{max.} (kN)	Max. Energy Absorbed (J)
M309-04-040065	65	35	60	40	45	27	30	34	5,2	13
M309-04-040075	75	45	70	45	55	36	40	44	9,8	24,5



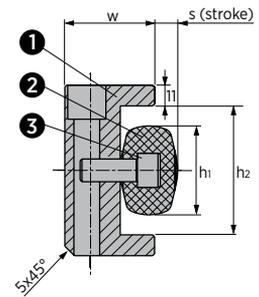
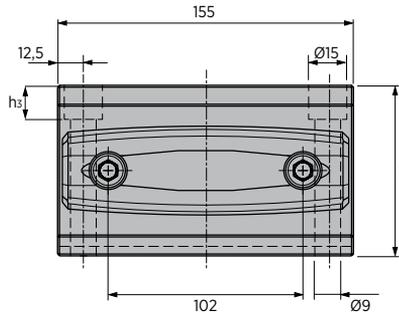
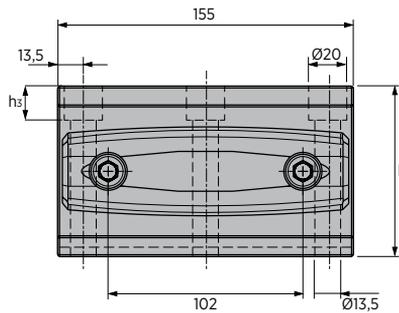
- 1** Material:
CK45
- 2** Shock Absorber
- 3** M6x12 DIN 912



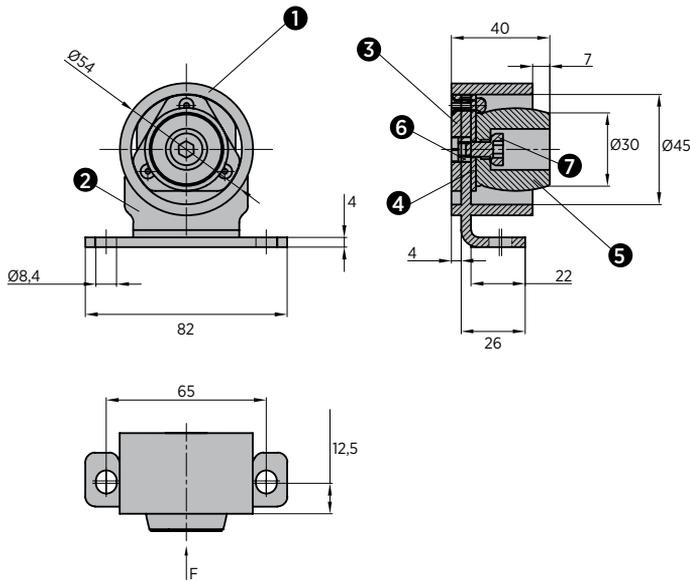
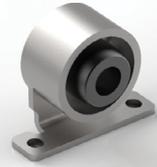
CODE	Fmax. (kN)	Max. Energy Absorbed (J)	Max. Stroke (mm)
M309-05-033085	3,75	8	7


3

- 1** Material: CK45
- 2** Shock Absorber
- 3** M10x30 DIN 912


Form - A

Form - B


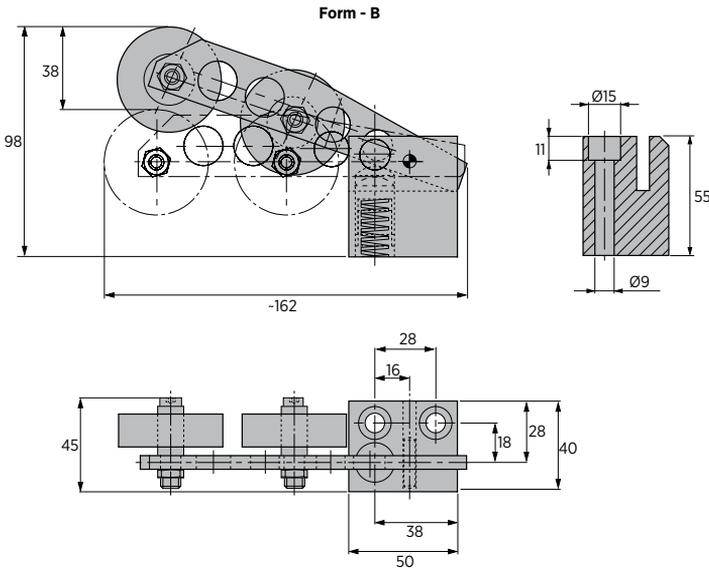
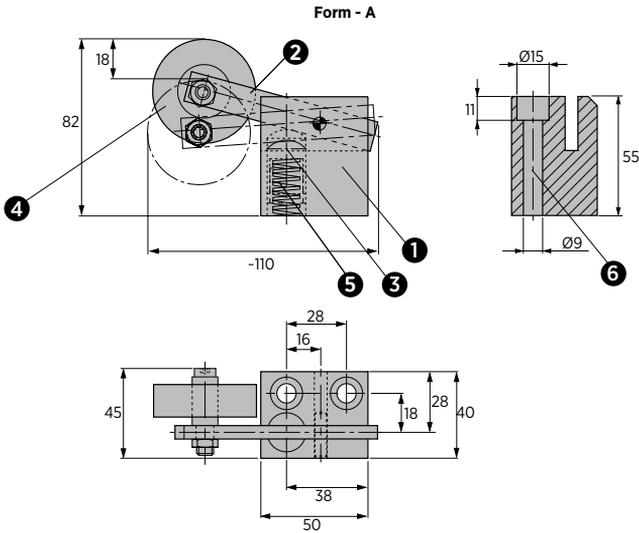
CODE	Form	w	h	h ₁	h ₂	h ₃	Max. Energy/Hub (J/Hub)	Max. Stroke (mm)
M309-06-0467155	A	46,7	80	47	58	9	210	10,3
M309-06-047155	A	47	90	52	68	19	230	7
M309-06-0471551	B	47	90	47	68	18	210	14



- 1** Material : S355
- 2** Material : S355
- 3** Material : S355
- 4** Material : S235/DC01
- 5** Shock Absorber
- 6** Material : M6 DIN 934
- 7** Material : Screw ZKS-M6x10



CODE	Fmax. (Kn)	Max. Energy Absorbed (J)	Max. Stroke (mm)
M309-07-054033	3.75	8	7



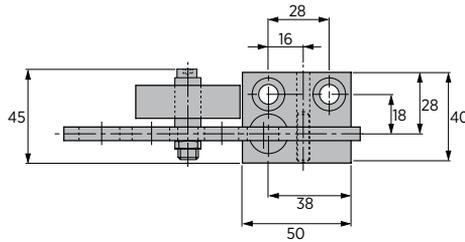
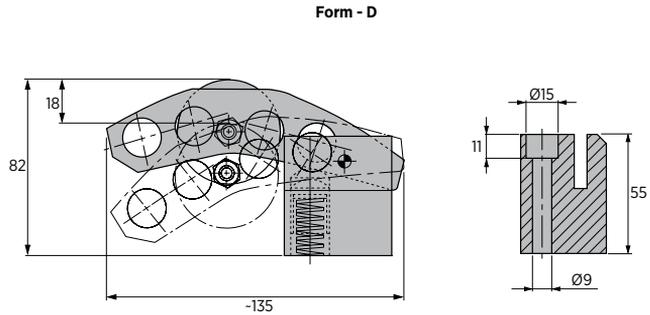
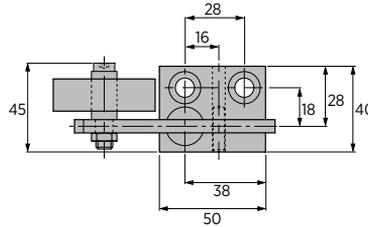
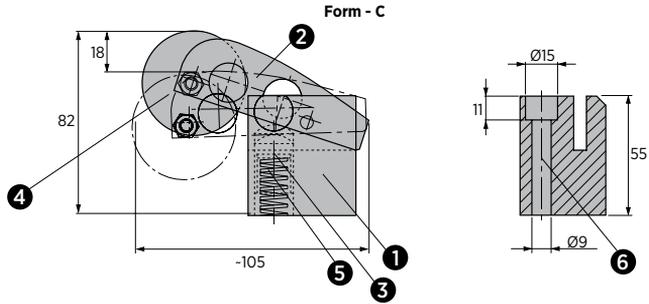
- 1** Material: C15
- 2** Material: S235JRG2K
- 3** Material: 42CrMo4
- 4** Roller
- 5** Spring
- 6** Screws M8x60 DIN 912



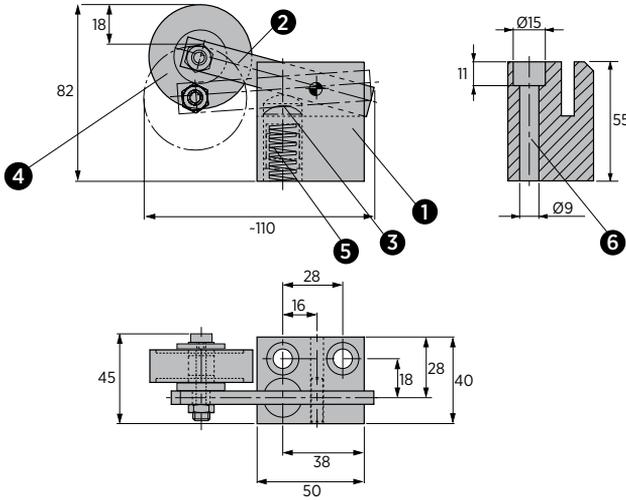
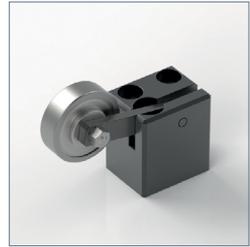
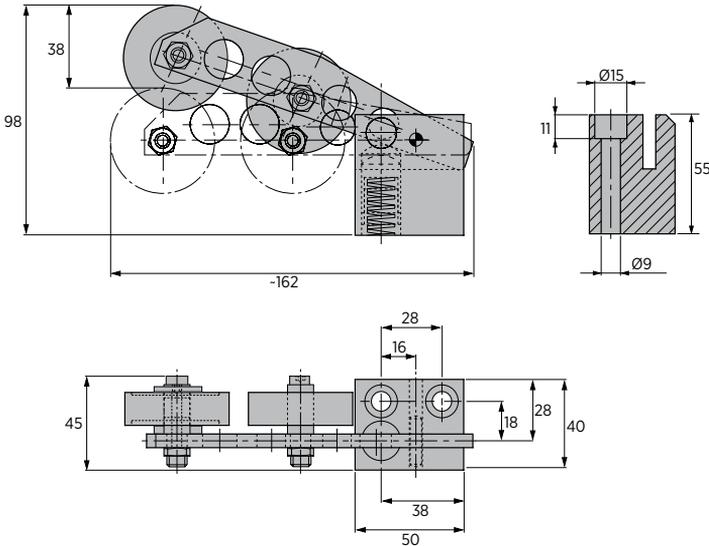
CODE	Form
M310-01-001	A
M310-01-002	B


3

- 1** Material: C15
- 2** Material: S235JRG2K
- 3** Material: 42CrMo4
- 4** Roller
- 5** Spring
- 6** Screws M8x60 DIN 912



CODE	Form
M310-01-003	C
M310-01-004	D

Form - A

Form - B

3

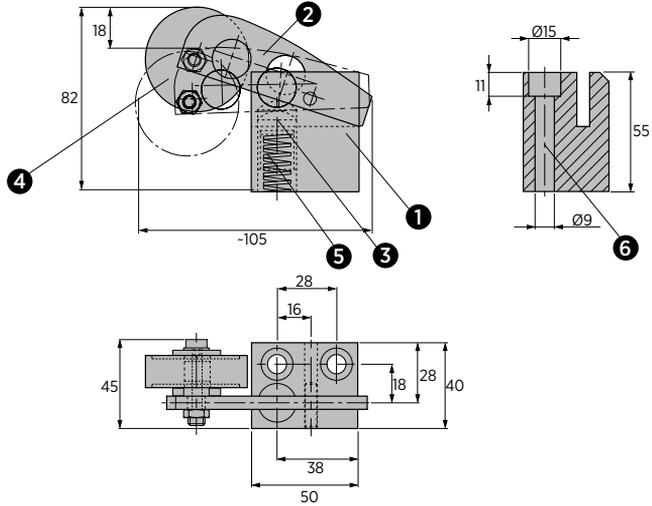
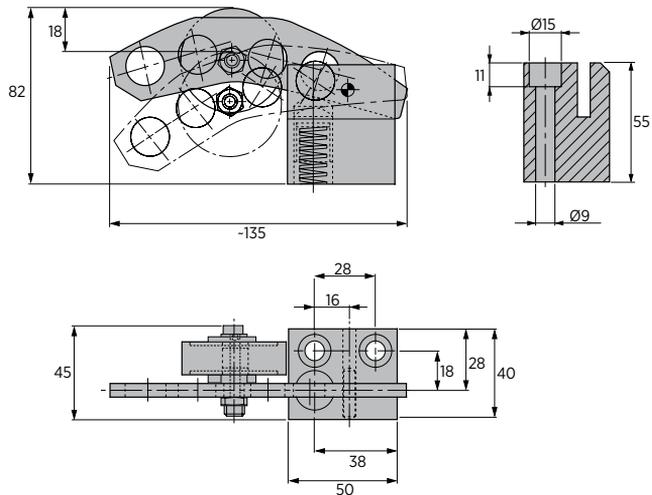
- 1** Material: C15
- 2** Material: S235JRG2K
- 3** Material: 42CrMo4
- 4** Roller
- 5** Spring
- 6** Screws M8x60 DIN 912



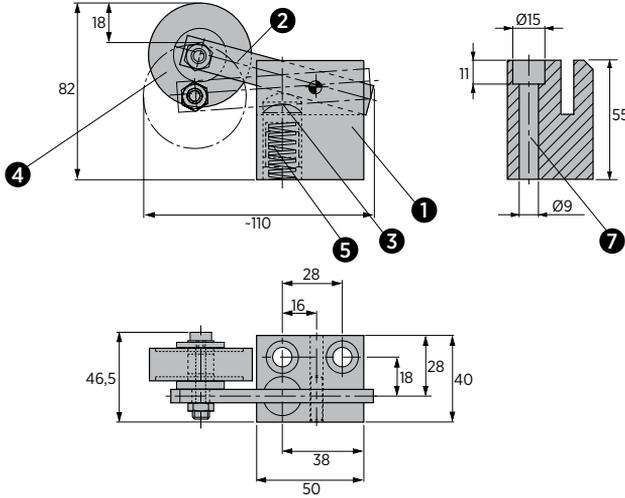
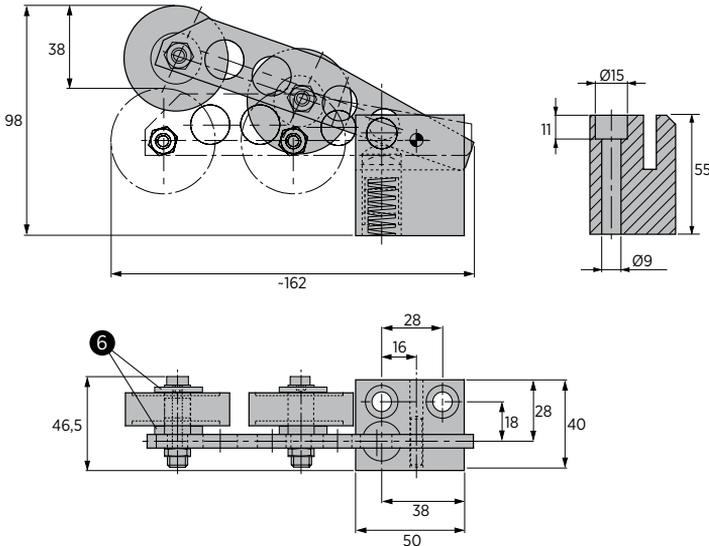
CODE	Form
M310-01-010	A
M310-01-011	B

3


- 1** Material: C15
- 2** Material: S235JRG2K
- 3** Material: 42CrMo4
- 4** Roller
- 5** Spring
- 6** Screws M8x60 DIN 912


Form - C

Form - D


CODE	Form
M310-01-012	C
M310-01-013	D

Form - A

Form - B

3

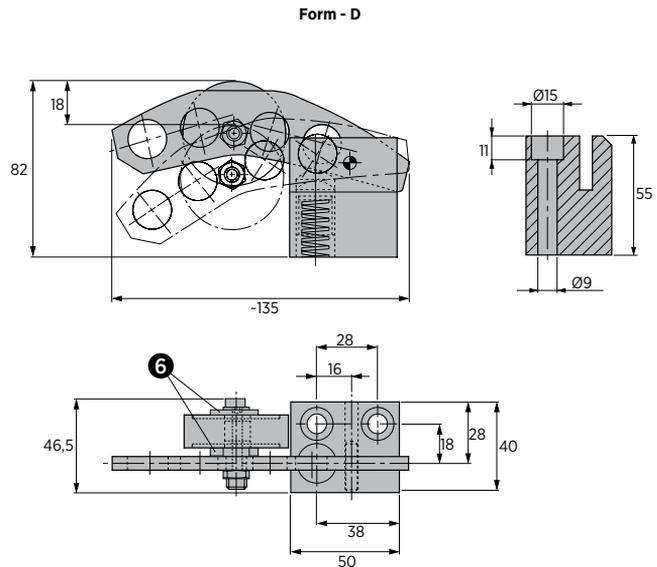
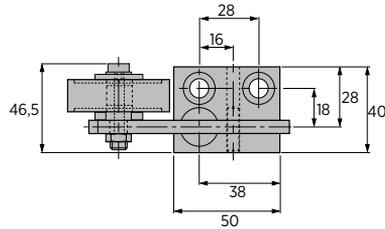
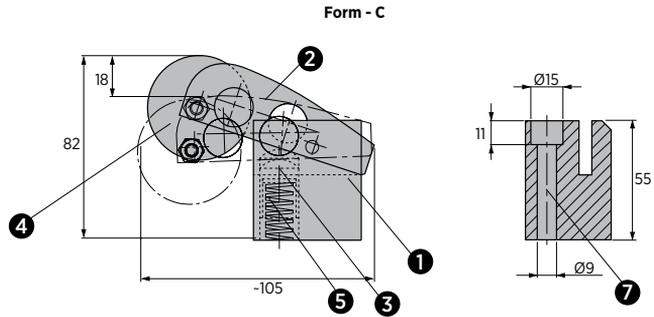
- 1** Material: C15
- 2** Material: S235JRG2K
- 3** Material: 42CrMo4
- 4** Roller
- 5** Spring
- 6** Material: Steel
- 7** Screws M8x60 DIN 912



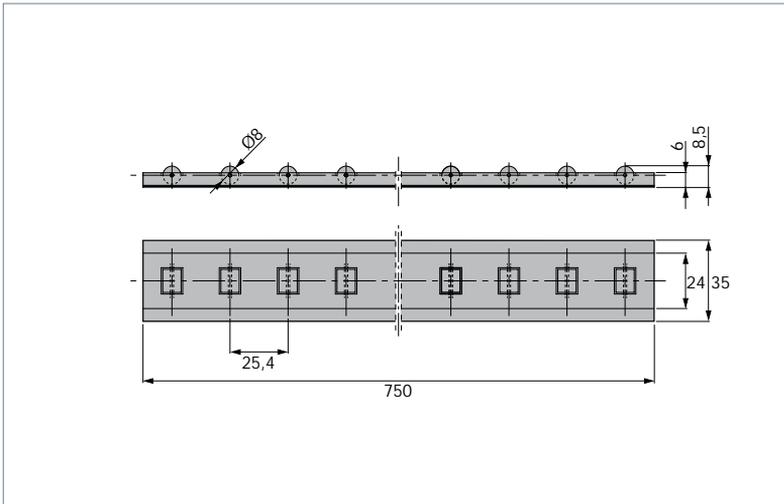
CODE	Form
M310-01-020	A
M310-01-021	B

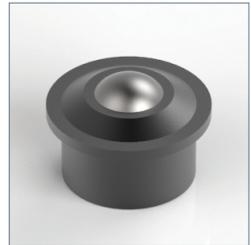
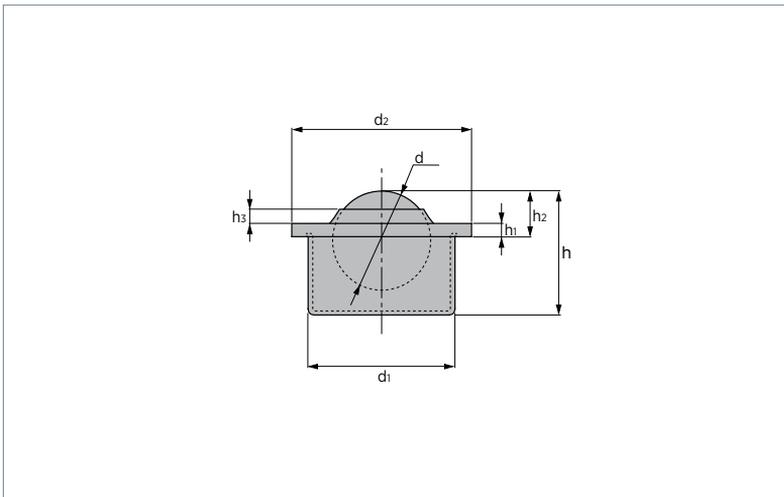

3

- 1** Material: C15
- 2** Material: S235JRG2K
- 3** Material: 42CrMo4
- 4** Roller
- 5** Spring
- 6** Material: Steel
- 7** Screws M8x60 DIN 912



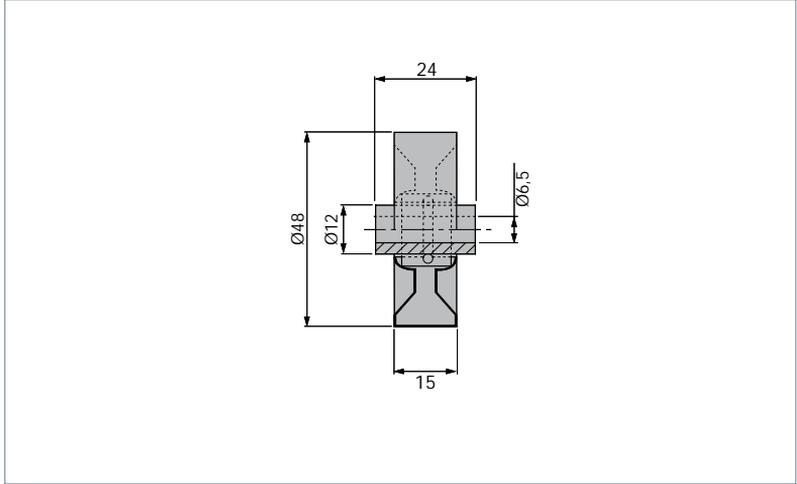
CODE	Form
M310-01-022	C
M310-01-023	D


 Material :
 Steel

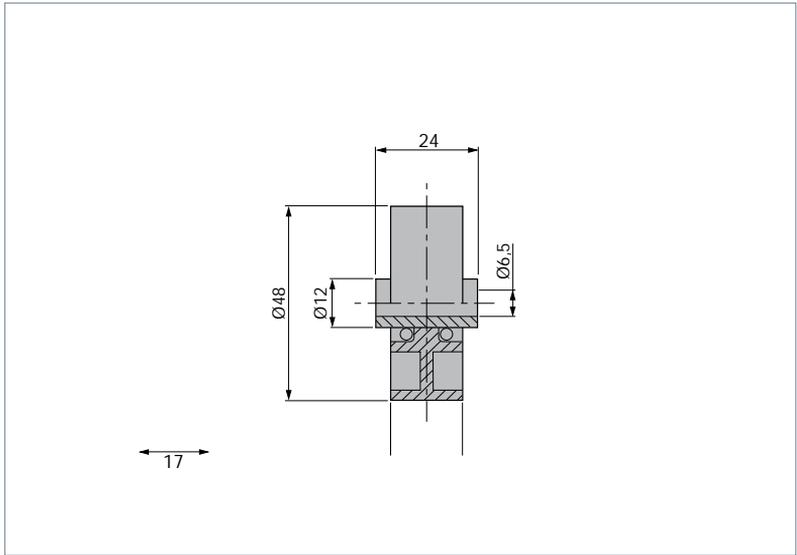
3
CODE
M310-03-35750

 Material :
 Steel


CODE	d	h	d ₁	d ₂	h ₁	h ₂	h _s	Max. Load (daN)
M310-04-0015	15	21,5	24±0,065	31	2,8	9,5±0,2	3,5	50
M310-04-0030	30	37,5	45±0,080	55	4	13,8±0,3	4,3	250

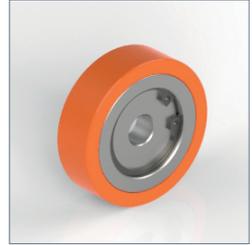
3


 Material :
 Steel


CODE	Max. Load (daN)
M310-05-001	25

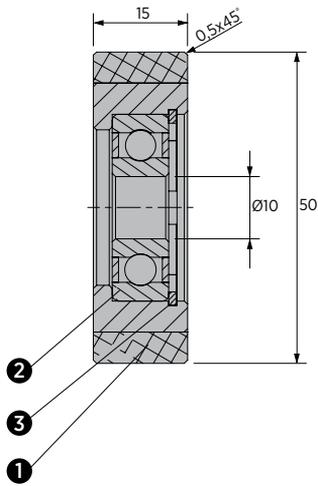

 Material :
 Polypropylene


CODE	Max. Load (daN)
M310-06-001	20



3

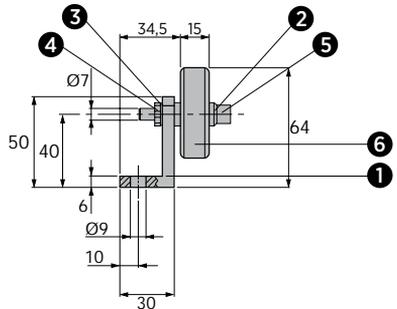
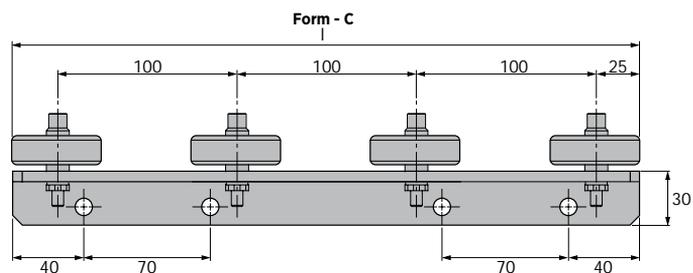
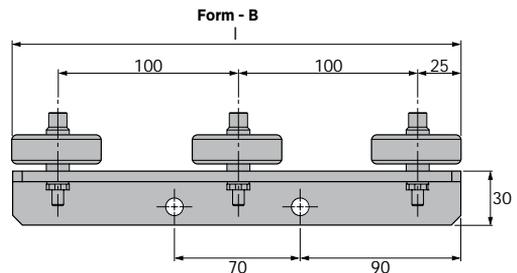
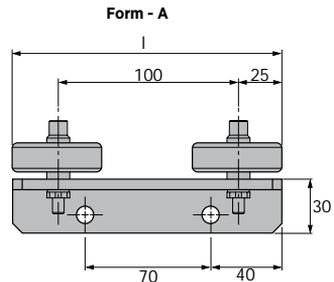
- 1 Material: Steel+Vulkollan
- 2 Roller Bearing 6200 2RS
- 3 I30 DIN 472



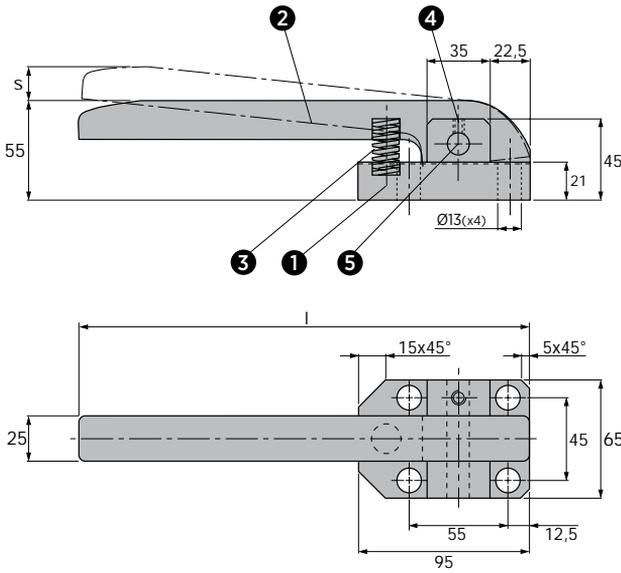
CODE	Max. Load (daN)
M310-08-001	70

3


- 1** Material: St 37
- 2 3** Washers for M6
- 4** Nut for M6
- 5** Screw M6x40 DIN 912
- 6** Material: Steel - M310-05-001



CODE	Form	l	Max. Load (daN)
M310-08-064-150	A	150	50
M310-08-064-250	B	250	75
M310-08-064-350	C	350	100



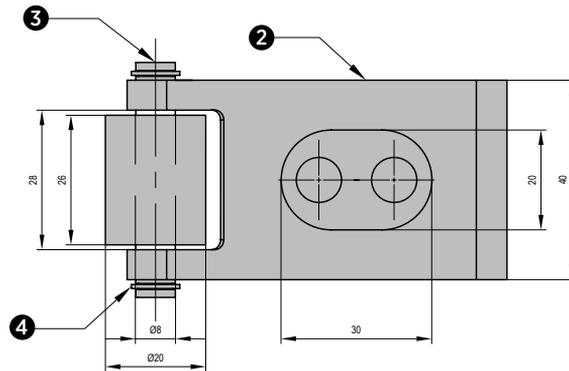
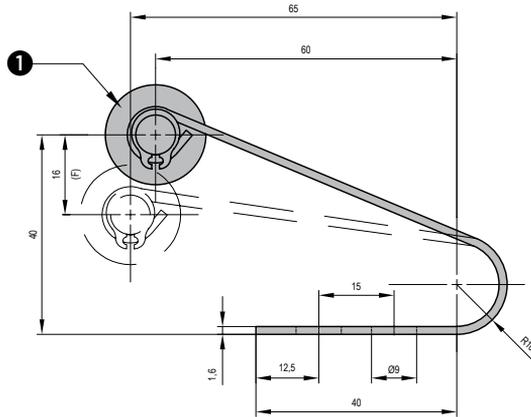
- 1 Material : CK45
- 2 Material: Bronze - HB>190
- 3 Spring
- 4 M6x8 DIN 913
- 5 $\varnothing 12 \times 60$ DIN 6325



CODE	l	s	Spring	Spring Initial Force (N)	Spring Final Force (N)
M310-09-01-001	250	18	TV016044	79	123
M310-09-01-002	250	18	B16044	270	420
M310-09-01-003	300	30	B16044	240	420

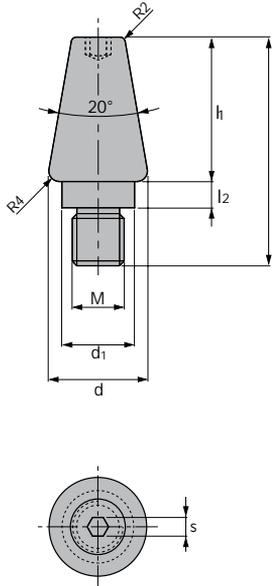

3

- 1** Steel or Resin (POM)
- 2** Steel
- 3** Steel
- 4** G Type Retaining Ring (G-8)



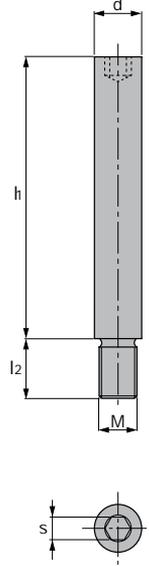
CODE	F max	Type
M310-10-016001	16	Steel
M310-10-016002	16	Resin


 Material :
 CK45

3


CODE	d	l	l ₁	l ₂	d ₁	M	s	Elastomer ø
M311-01-012056	28	56	30	8	19	M12	6	63
M311-01-016074	32	74	40	10	22	M16	8	80-100
M311-01-020100	38	100	55	15	28	M20	10	125-140

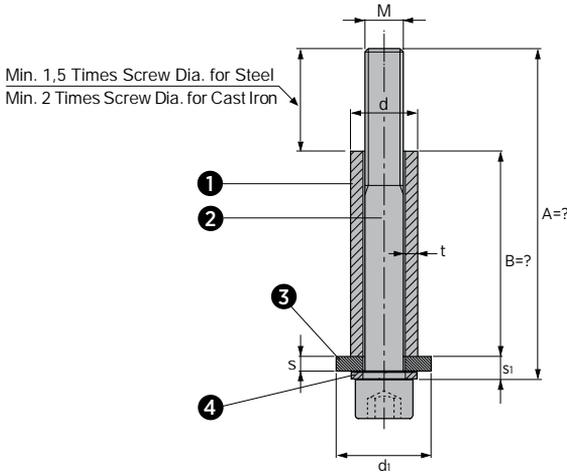
3

 Material :
 CK45


d	l ₁										l ₂	M	s
6	20	25	32	40	-	-	-	-	-	-	6	M4	3
8	20	25	32	40	50	-	-	-	-	-	9	M6	4
10	20	25	32	40	50	63	-	-	-	-	15	M8	5
13	-	-	32	40	50	63	80	95	-	-	15	M10	6
16	-	25	32	40	50	63	80	95	118	140	180	M12	8
20	-	-	32	40	50	63	80	95	118	140	180	M16	10
25	-	-	32	40	50	63	80	95	118	140	180	M20	14

Order Example:
 d= 10, l₁= 50

Order Code:
 M311-05-10050


3

1 Material :
 St37

2 DIN 912 cl. 12.9

3 Material: CK45

4 DIN 127

A and B are given by the customer.

CODE	dxt	d _i	M	s	s ₁	Max. Load (kg)
M312-03-10AAABBB	16x2,5	25	M10	4	5,6	100
M312-03-12AAABBB	20x3,5	30	M12	6	7,7	150
M312-03-16AAABBB	28x5,5	40	M16	6	8,1	250

Order Example:

M= 12, A= 110, B= 76

Order Code:

M312-03-12110076


3
1 Material :
St37

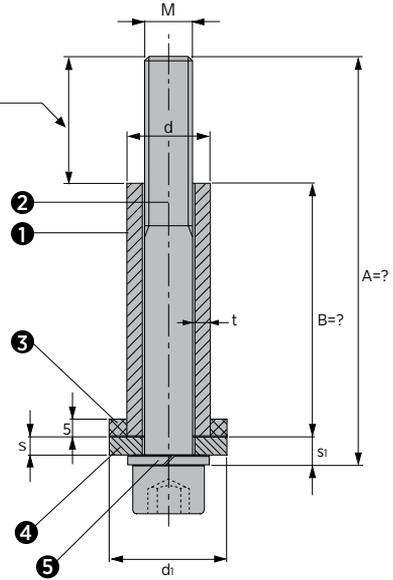
2 DIN 912 cl. 12.9

3 Material: Elastomer 92SH

4 Material : CK45

5 DIN 127

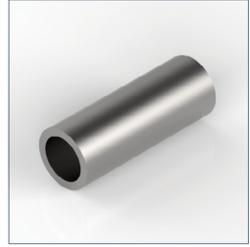
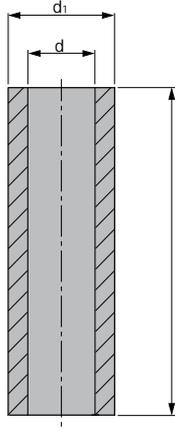
A and B are given by the customer.

 Min. 1,5 Times Screw Dia. for Steel
 Min. 2 Times Screw Dia. for Cast Iron


CODE	dxt	d ₁	M	s	s ₁	Max. Load (kg)
M312-08-10AAABBB	16x2,5	32	M10	4	6,5	100
M312-08-12AAABBB	20x3,5	36	M12	6	8,5	150
M312-08-16AAABBB	28x5,5	45	M16	6	9,5	250

Order Example:
 M= 12, A= 110, B= 76

Order Code:
 M312-08-12110076


 Material :
 St35.4


Different lengths on request.

Order Example:
 d₁ = 20, l = 80

Order Code:
 M313-01-020080

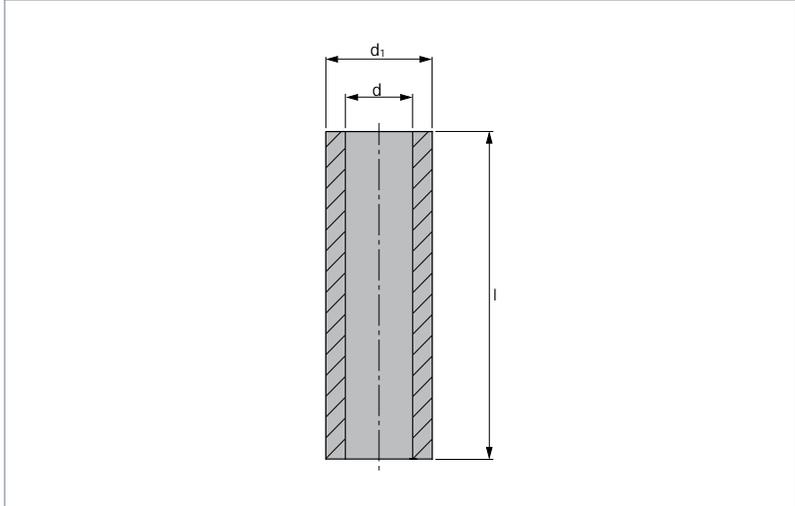
d	6,4	9	11	13	17	22	26	32
d ₁	10	13	16	20	25	30	36	42
Screw	M6	M8	M10	M12	M16	M20	M24	M30
l±0,1								
27	•							
30		•	•					
33	•		•	•				
38	•		•	•				
40		•	•					
44	•		•	•				
48	•		•	•	•			
50		•	•	•	•	•		
61	•		•	•	•			
63		•	•	•	•	•		
70					•	•		
72	•		•	•	•	•	•	
80	•	•	•	•	•	•	•	
90			•	•	•	•	•	
95					•			
100		•	•	•	•	•	•	
105					•			
115					•			
125			•	•	•	•	•	
135					•			
150			•	•	•	•	•	•
155					•			
175					•	•	•	
195					•			
200			•	•	•	•	•	•
215					•			
225					•	•	•	
235					•			
250					•	•	•	
255					•			

3

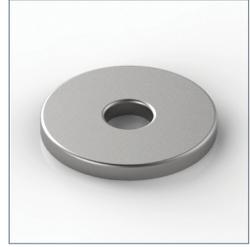
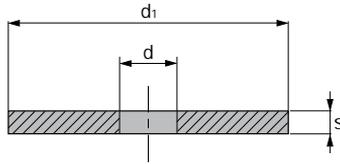
 Material :
 ST35.4
 Surface hardened.
 HRC 56 ± 60


Different lengths on request.

Order Example:
 d= 20, l= 80

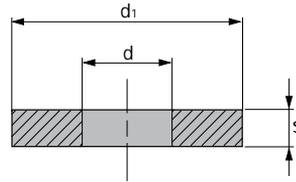
Order Code:
 M313-02-020080


d	6,4	9	11	13	17	22	26	32
d ₁	10	13	16	20	25	30	36	42
Screw	M6	M8	M10	M12	M16	M20	M24	M30
l±0,1								
27	•							
30		•	•					
33	•		•	•				
38	•		•	•				
40		•	•					
44	•		•	•				
48	•		•	•	•			
50		•	•	•	•	•		
61	•		•	•	•			
63		•	•	•	•	•		
70					•	•		
72	•		•	•	•	•	•	
80	•	•	•	•	•	•	•	
90			•	•	•	•	•	
95					•			
100		•	•	•	•	•	•	
105					•			
115					•			
125			•	•	•	•	•	
135					•			
150			•	•	•	•	•	•
155					•			
175					•	•	•	
195					•			
200			•	•	•	•	•	•
215					•			
225					•	•	•	
235					•			
250					•	•	•	
255					•			


 Material :
 CK45

3

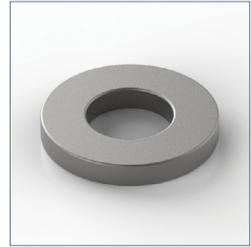
CODE	d	d ₁	s	Elastomer Ø
M313-04-020004	6,5	20	4	16
M313-04-025004	8,5	25	4	20
M313-04-030005	10,5	30	5	25
M313-04-040005	13,5	40	5	32
M313-04-050005	13,5	50	5	40
M313-04-060006	16,5	60	6	50
M313-04-080006	16,5	80	6	63
M313-04-100008	20,5	100	8	80
M313-04-120008	20,5	120	8	100
M313-04-150008	26	150	8	125

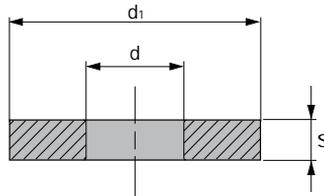
3

 Material :
 CK45


CODE	d	d ₁	s
M313-05-001	8,5	20	4
M313-05-002	10,5	25	5
M313-05-003	13,5	25	5
M313-05-004	13,2	30	5
M313-05-005	13,5	30	5
M313-05-006	12,5	32	5
M313-05-007	12,5	32	6
M313-05-008	13	32	5
M313-05-009	13,5	32	6
M313-05-010	10,5	36	5
M313-05-011	13,5	36	5
M313-05-012	16,5	36	5
M313-05-013	20,5	36	5
M313-05-014	17	38	6

CODE	d	d ₁	s
M313-05-016	20,5	45	5
M313-05-017	21	45	8
M313-05-018	10,5	55	5
M313-05-019	13,5	55	5
M313-05-020	20,5	55	5
M313-05-021	25	55	10
M313-05-022	25,5	55	5
M313-05-023	30,5	55	5
M313-05-024	12,5	60	5
M313-05-025	16,5	60	5
M313-05-026	12,5	75	5
M313-05-027	16,5	75	5
M313-05-028	16,5	90	5
M313-05-029	21	90	5
M313-05-030	21	120	5

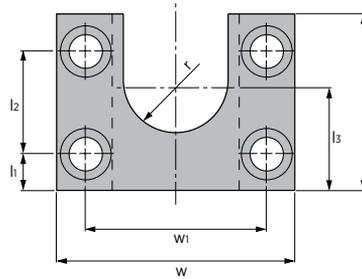
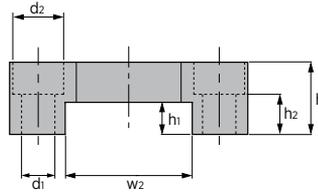

 Material :
 CK45

 Hardened
 HRC 45 ÷ 50


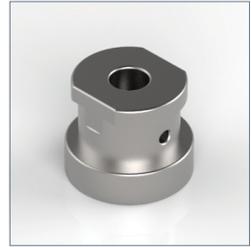
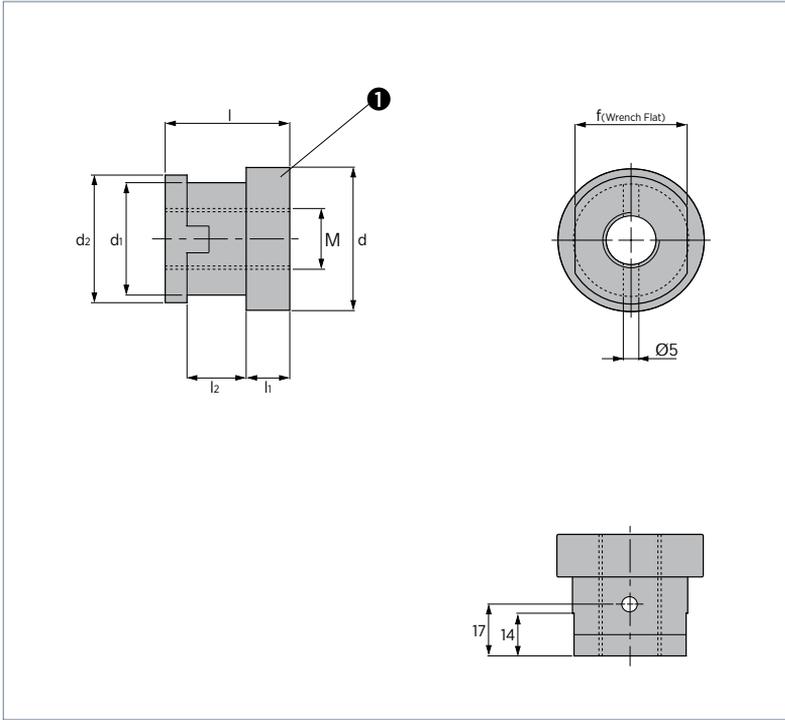
CODE	d	d ₁	s
M313-06-001	6,4	17	3
M313-06-002	8,4	23	4
M313-06-003	10,5	26	4
M313-06-004	13	30	5
M313-06-005	17	35	4
M313-06-006	17	35	5
M313-06-007	17	35	6
M313-06-008	21	42	8
M313-06-009	21	46	6
M313-06-010	25	46	10
M313-06-011	25	55	10



3

 Material :
 CK45


CODE	w	h	l	l ₁	l ₂	l ₃	w ₁	w ₂	h ₁	h ₂	d ₁	d ₂	r	Screw
M316-01-001	80	25	50	11,5	27	30	57	38	11	15	11	17	14	M10
M316-01-002	100	32	55	12,5	30	35	75	50	15	20	13	20	20	M12
M316-01-003	120	40	65	16	33	45	88	60	20	24	17	26	25	M16
M316-01-004	150	45	100	18	64	64	114	80	20	19	21	33	33	M20

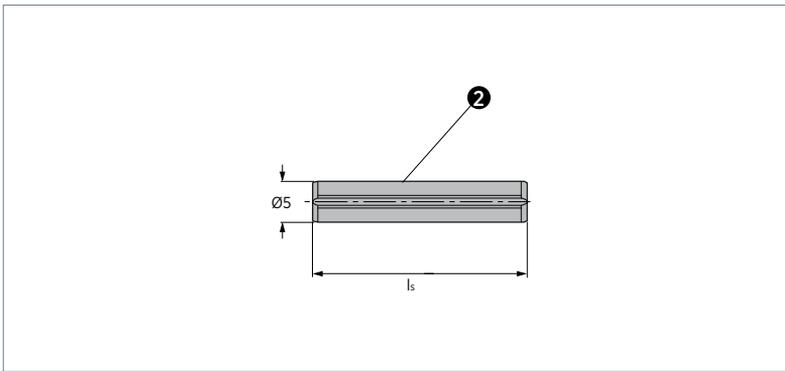


1 Material :
CK45



2 DIN EN ISO 8752

*Slotted Pin - will be supplied
with coupling nut.

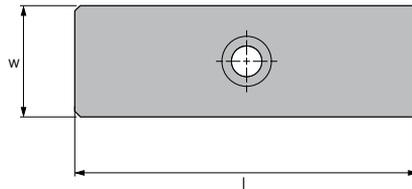
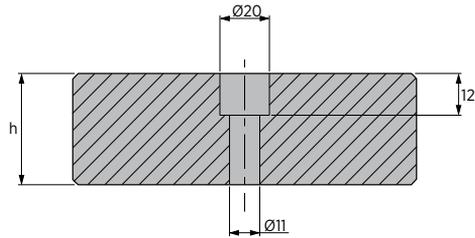


CODE	d	l	h	l ₂	l _s	d ₁	d ₂	f	M	Air Cyl. Bore Size Ø
M316-02-001	35	30	10	16	-	25	30	24	M10x1,25	32
M316-02-002	35	30	10	16	24	25	30	24	M12x1,25	40
M316-02-003	47	40	14	19	36	37	42	36	M16x1,5	50, 63
M316-02-004	47	40	14	19	36	37	42	36	M20x1,5	80, 100
M316-02-005	47	40	14	19	36	37	42	36	M27x2,0	125
M316-02-006	57	50	19	24	45	47	52	46	M36x2,0	160, 200
M316-02-007	76	76	19	50	55	59	64	60	M42x2,0	250

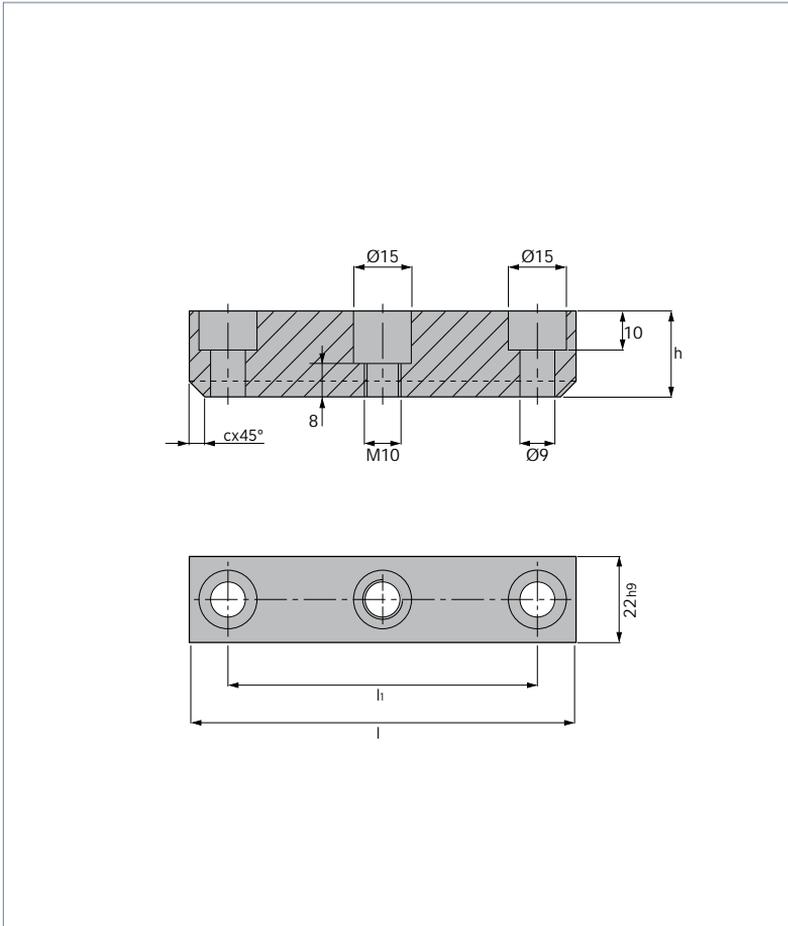


3

Material :
CK45



CODE	w h11	h	l
M317-04-2525080	25	25	80
M317-04-2525125	25	25	125
M317-04-3030080	30	30	80
M317-04-3030125	30	30	125

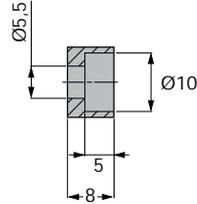
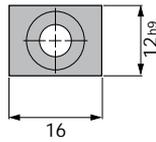
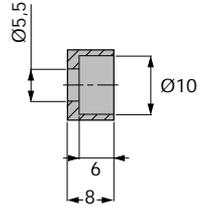
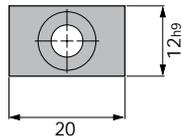
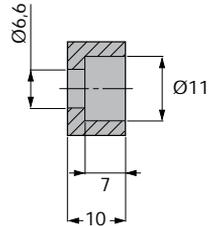
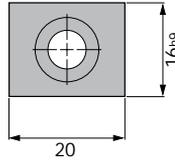

 Material :
 CK45

3

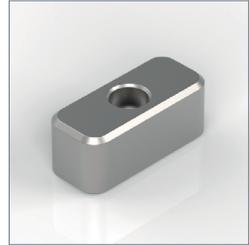
CODE	h	l	h ₁	c
M317-05-014050	14	50	32	-
M317-05-014080	14	80	50	-
M317-05-014100	14	100	80	-
M317-05-014125	14	125	100	-
M317-05-022050	22	50	32	4
M317-05-022080	22	80	50	4
M317-05-022100	22	100	80	4
M317-05-022125	22	125	100	4
M317-05-040050	40	50	32	4
M317-05-040080	40	80	50	4
M317-05-040100	40	100	80	4
M317-05-040125	40	125	100	4

3

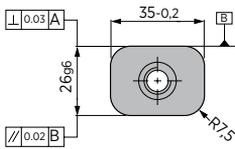
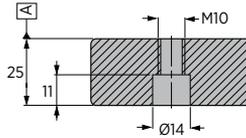
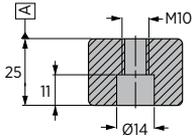
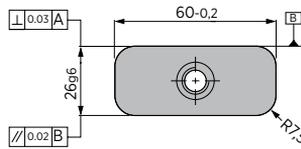
 Material :
 CK45

Form - A

Form - B

Form - C


CODE	Form
M317-07-012016	A
M317-07-012020	B
M317-07-016020	C

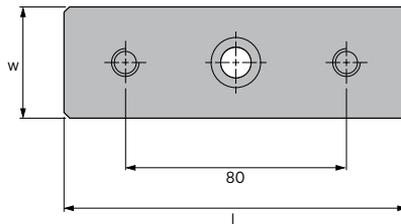
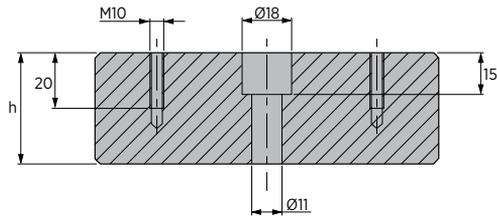

 Material :
90MnCrV8

 Hardened
HRC 58 ÷ 60

3
Form - A

Form - B


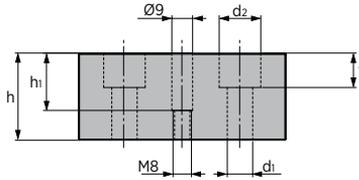
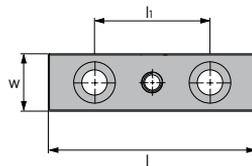
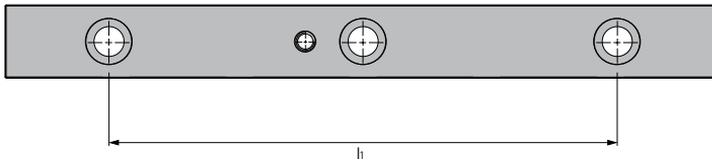
CODE	Form
M317-08-2635	A
M317-08-2660	B


3

 Material :
 CK45


CODE	w h9	h	l
M317-10-42125	42	40	125
M317-10-50135	50	48	135
M317-10-50220	50	48	220

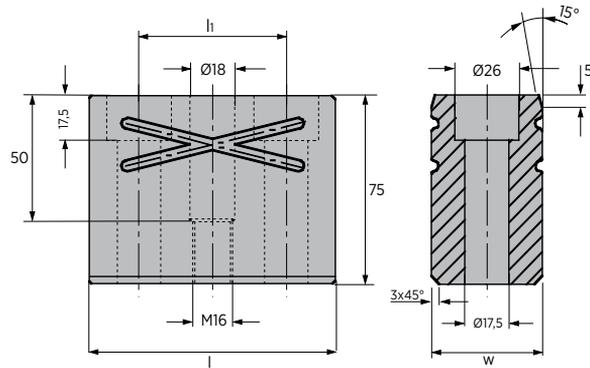

 Material :
CK45

3

Form - A

Form - B


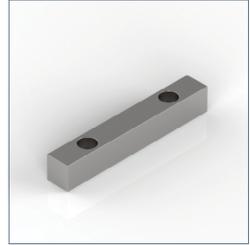
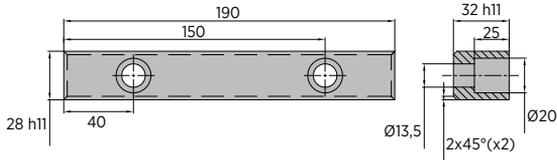
CODE	Form	w h7	h	l	l ₁	h ₁	d ₁	d ₂	t
M317-11-2538090	A	25	38	90	50	25	11	18	15
M317-11-2538120	A	25	38	120	80	25	11	18	15
M317-11-3248150	A	32	48	150	90	35	13	20	25
M317-11-3248210	A	32	48	210	130	35	13	20	25
M317-11-3258260	A	32	58	260	150	42	13	20	25
M317-11-3258310	B	32	58	310	220	42	13	20	25
M317-11-3258350	B	32	58	350	250	42	13	20	25

3

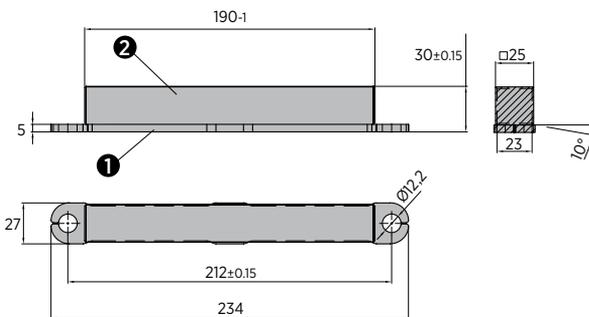
 Material :
 16MnCr5

 Hardened
 HRC 60 + 62


CODE	w h6	l	h
M317-12-045100	45	100	60
M317-12-045125	45	125	85
M317-12-045160	45	160	120
M317-12-045200	45	200	160

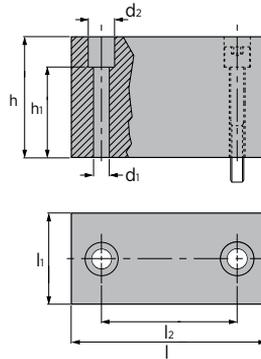
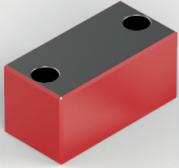

 Material :
1.0503 (C45+C)


3

CODE
M317-16-028032

1 Material :
S355MC (t=5 mm)

2 Material :
S235 JRC+C

CODE
M317-17-025030


 Material :
 CK45


Screws not included.

3

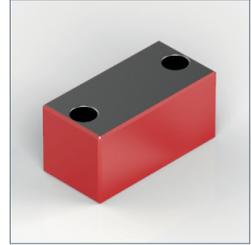
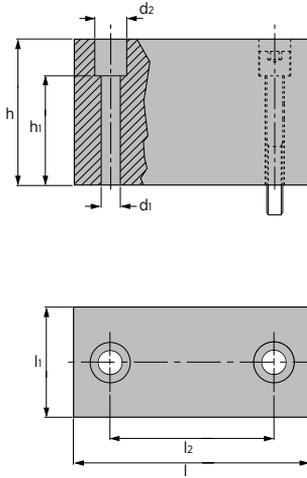
l x h	60 x 40			80 x 40			100 x 40			100 x 50			120 x 60			150 x 80		160 x 100	
d₁	9			11			14			14			14			18		18	
d₂	15			18			20			20			20			26		26	
Max. Load (t)	50			65			85			110			160			270		380	
l₂	40			56			71			76			93			120		130	
h₁	10	28	48	8	25	45	6	22	42	6	22	42	6	22	42	18	38	18	38
h±0,05																			
20																			
20,3																			
20,5																			
23																			
25																			
28																			
30																			
30,3																			
30,5																			
33																			
35																			
38																			
40																			
40,3																			
40,5																			
41																			
43																			
45																			
48																			
50																			
50,3																			
50,5																			
51																			
55																			
60																			
60,5																			
61																			

Order Example:

l= 150, h= 80, h= 40

Order Code:

M318-03-15008004000


 Material :
 CK45


Screws not included.

3

CODE	l	h ₁	l ₂	d ₁	d ₂	Screw	Max. Load (t)
M318-03-???????????	60	40	40	9	15	M8	50
M318-03-???????????	80	40	56	11	18	M10	65
M318-03-???????????	100	40	71	14	20	M12	85
M318-03-???????????	100	50	76	14	20	M12	110
M318-03-???????????	120	60	93	14	20	M12	160
M318-03-???????????	150	80	120	18	26	M16	270
M318-03-???????????	160	100	130	18	26	M16	380

	M8	M10	M12	M16
h ±0,05	h ₁	h ₁	h ₁	h ₁
≥ 20 - 40	10	8	6	-
> 40 - 60	28	25	22	18
> 60 - 80	48	45	42	38
> 80 - 100	68	65	62	58
> 100 - 120	68	85	82	78
> 120 - 140	68	105	102	98
> 140 - 160	68	105	122	118

Order Example:

l= 150, h= 80, h= 85

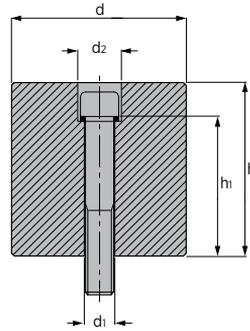
Order Code:

M318-03-15008008500

3

 Material :
 CK45

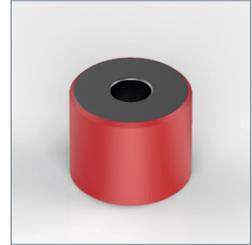
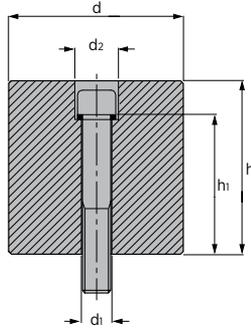

Screws not included.



d	60			80			100		120		150	
d ₁	14			18			18		22		22	
d ₂	20			26			26		33		33	
Max. Load (t)	55			100			170		250		400	
h ₁	12	22	42	20	36	20	36	15	30	15	30	
h±0,05												
25	•			•								
28	•			•								
30	•			•								
30,3	•			•								
30,5	•			•								
33	•			•								
35	•			•								
38	•			•								
40		•		•			•					
40,3		•		•			•					
40,5		•		•			•					
41		•		•			•					
43		•		•			•					
45		•		•			•					
48		•		•			•					
50		•		•			•		•			•
50,3		•		•			•		•			•
50,5		•		•			•		•			•
51		•		•			•		•			•
55		•		•			•		•			•
60		•		•			•		•			•
60,3			•		•		•		•			•
60,5			•		•		•		•			•
61			•		•		•		•			•

Order Example:
 d= 80, h= 45

Order Code:
 M318-05-08004500


 Material :
 CK45


Screws not included.

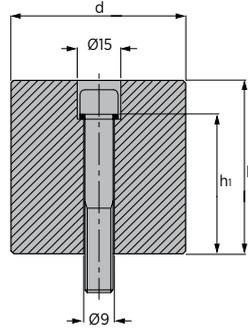
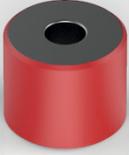
3

CODE	d	d ₁	d ₂	Screw	Max. Load (t)
M318-05-????????	60	14	20	M12	50
M318-05-????????	80	18	26	M16	65
M318-05-????????	100	18	26	M16	85
M318-05-????????	120	22	33	M20	110
M318-05-????????	150	22	33	M20	160

	M12	M16		M20	
d	60	80	100	120	150
h ±0,05	h ₁	h ₁		h ₁	
≥ 25 < 40	12	-	-	-	
≥ 40 - 60	22	20	20	15	
> 60 - 80	42	36	36	30	
> 80 - 100	62	56	56	50	
> 100 - 120	82	76	76	70	
> 120 - 140	102	96	96	90	
> 140 - 160	122	116	116	110	

Order Example:
 d= 80, h= 105

Order Code:
 M318-05-08010500


3

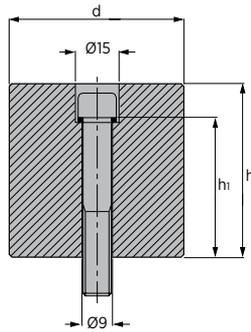
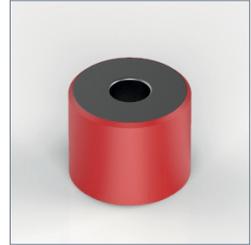
 Material :
 CK45


Screws not included.

d	25		30		40		50	
Max. Load (t)	3,5		8		20		35	
h ₁	10	28	10	28	10	28	10	28
h_{±0,05}								
20	•		•		•		•	
20,3	•		•		•		•	
20,5	•		•		•		•	
23	•		•		•		•	
25	•		•		•		•	
28	•		•		•		•	
30	•		•		•		•	
30,3	•		•		•		•	
30,5	•		•		•		•	
33	•		•		•		•	
35	•		•		•		•	
38	•		•		•		•	
40	•		•		•		•	
40,3		•		•		•		•
40,5		•		•		•		•
41				•		•		•
43				•		•		•
45				•		•		•
48				•		•		•
50				•		•		•
50,3				•		•		•
50,5				•		•		•
51						•		•
55						•		•
60						•		•
60,3						•		•
60,5						•		•

Order Example:
 d= 50, h= 45

Order Code:
 M318-06-05004500


 Material :
 CK45


Screws not included.

3

CODE	d	Screw	Max. Load (t)
M318-06-????????	25	M8	3,5
M318-06-????????	30	M8	8
M318-06-????????	40	M8	20
M318-06-????????	50	M8	35

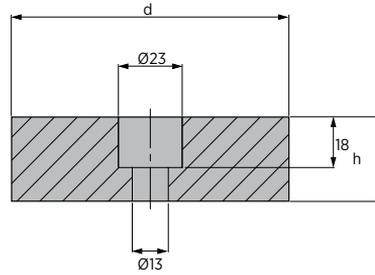
h ±0,05	h ₁
≥ 20 - 40	10
> 40 - 60	28

Order Example:
 d= 50, h= 45

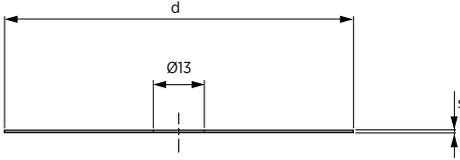
Order Code:
 M318-06-05004500


3

 Material :
 42CrMo4

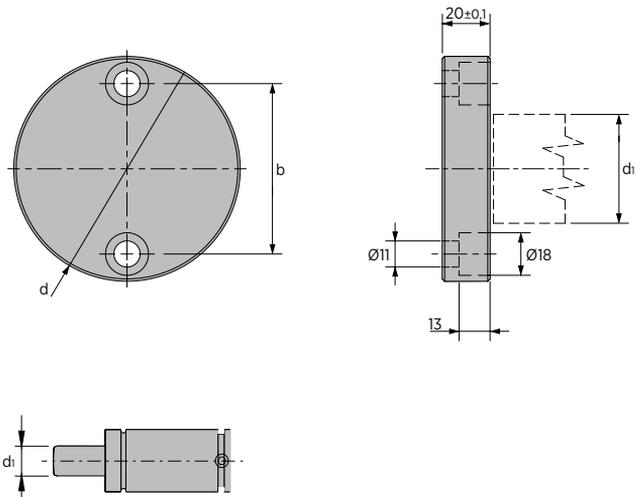
 Hardened
 HRC 46 ÷ 48


CODE	d	h
M318-07-080025	80	25
M318-07-080030	80	30
M318-07-100025	100	25
M318-07-100030	100	30
M318-07-120025	120	25
M318-07-120030	120	30

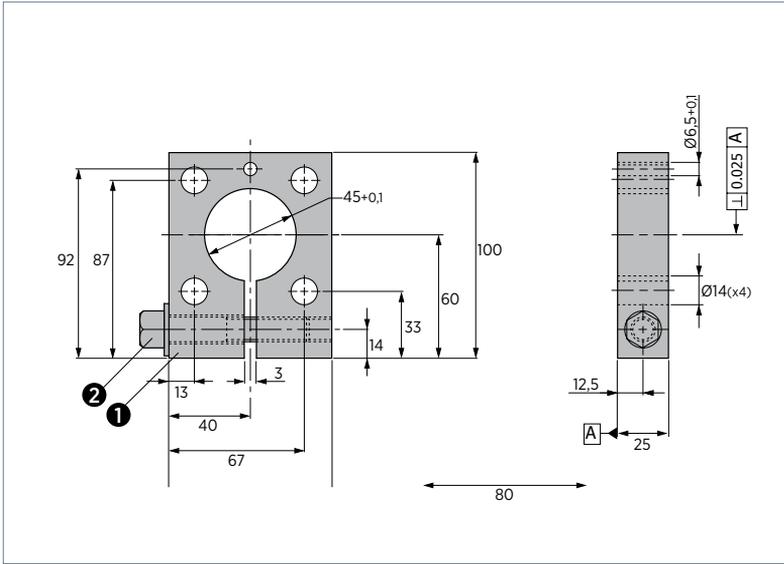

 Material :
 Steel or Brass

3

CODE	d	s	Material
M318-08-080001	80	0,1	Brass
M318-08-080005	80	0,5	Steel
M318-08-100001	100	0,1	Brass
M318-08-100005	100	0,5	Steel
M318-08-120001	120	0,1	Brass
M318-08-120005	120	0,5	Steel

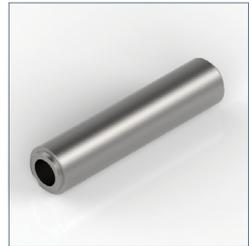
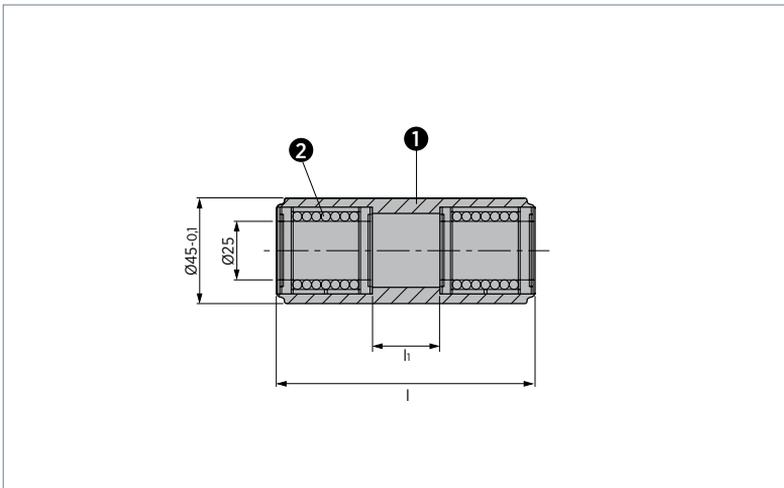
3

 Material :
 16MnCr5
 Hardened
 HRC 58 ÷ 60


CODE	d	d ₁	b
M318-09-065020	65	≤25	42
M318-09-095020	95	≤50	72



- 1 Material : CK45
- 2 M12x70 DIN 931 (8.8)

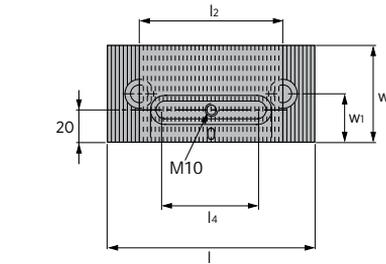
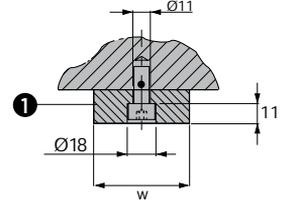
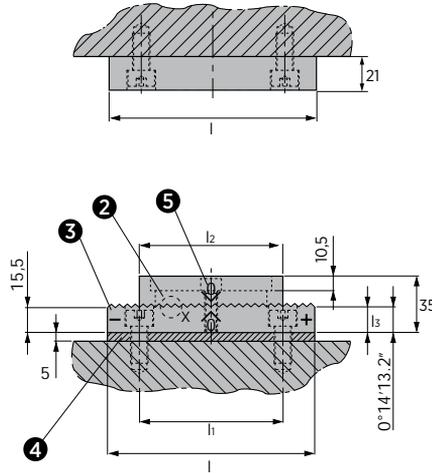

3
CODE
M319-01-100080


- 1 Material : CK45
- 2 STAR 0658-225-40

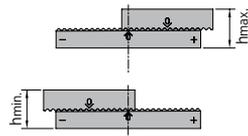
CODE	l	h
M319-01-045112	112	40
M319-01-045200	200	120

3


- 1 Material : 90MnCrV8
 - 2 Hardened
 - 3 HRC 58 ÷ 60
- Screws not included.
- 4 Material : X155CrVMo12
 - 5 M10x20 DIN 912



Basis : 0,02 mm per tooth

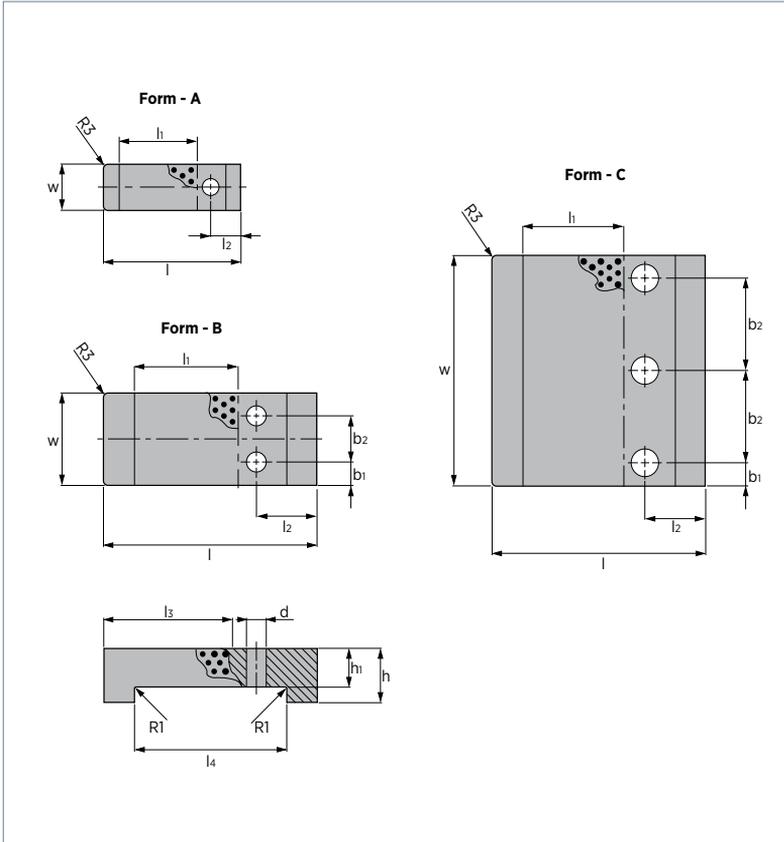


- ↔ Basic setting in the middle (grinding-in)
- + Adjustment to the right - plus
- Adjustment to the left - minus

 Adjustment Range
 - 12 increments each of 0,02 mm means an adjusting range of 0,24 mm with a minimum support area of 60 x 80 mm

- 14 increments each of 0,02 mm means an adjusting range of 0,28 mm with a minimum support area of 100 x 80 mm

CODE	w	l	l ₁	l ₂	l ₃	l ₄	w ₁	h _{min.}	h _{max.}
M319-02-060130	60	130	90	90	16,04	61	30	34,88	35,12
M319-02-080160	80	160	120	110	16,16	71	40	34,86	35,14


 Material :
 Bronze with
 Non-liquid Lubricant
 HB >190

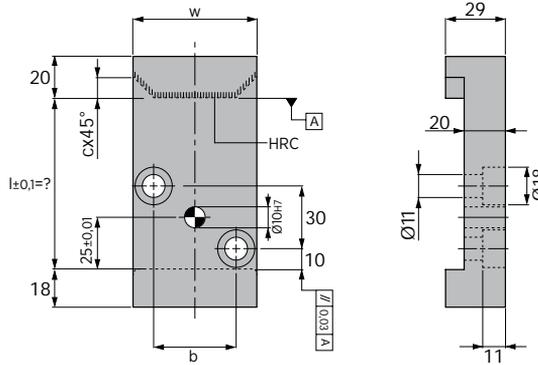
3

CODE	Form	w h7	h	l	h	l ₂	l ₃	l ₄	d	h ₁	b ₁	b ₂ ±0,2
M320-03-030070	A	30	17	70	30	20	40	50	11	12	-	-
M320-03-030090	A	30	17	90	50	20	60	70	11	12	-	-
M320-03-045070	B	45	25	70	30	20	40	50	11	15	11,5	22
M320-03-045090	B	45	25	90	50	20	60	70	11	15	11,5	22
M320-03-060120	B	60	35	120	40	40	60	80	13	25	15	30
M320-03-060140	B	60	35	140	60	40	80	100	13	25	15	30
M320-03-060160	B	60	35	160	80	40	100	120	13	25	15	30
M320-03-100120	B	100	35	120	40	40	60	80	18	25	15	70
M320-03-100140	B	100	35	140	60	40	80	100	18	25	15	70
M320-03-100160	B	100	35	160	80	40	100	120	18	25	15	70
M320-03-150120	C	150	35	120	40	40	60	80	18	25	15	60
M320-03-150140	C	150	35	140	60	40	80	100	18	25	15	60
M320-03-150160	C	150	35	160	80	40	100	120	18	25	15	60
M320-03-150180	C	150	35	180	100	40	120	140	18	25	15	60

3

 Material :
 CK45

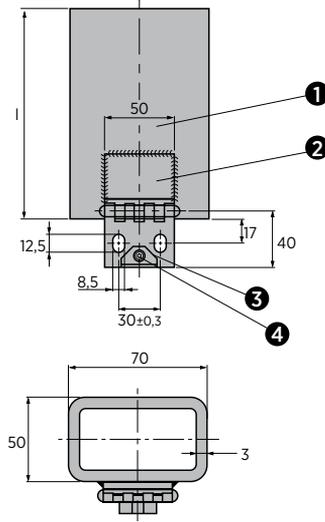
 Hardened
 HRC 52 ÷ 54

 Length (l) is given by the
 customer.


CODE	w -l	b	c
M320-07-035-l	35	15	7
M320-07-060-l	60	40	10

Order Example:
 w= 35, l= 110

Order Code:
 M320-07-035110



- 1 Material :
St 37
- 2 Hinge
- 3 Material :
Elastomer 68 Shore
- 4 Screw M4x8 DIN 912


3

CODE	l±0,05	Max. Load (kN)
M321-01-070065	65	125
M321-01-070070	70	125
M321-01-070075	75	125
M321-01-070080	80	125
M321-01-070085	85	125
M321-01-070090	90	125
M321-01-070095	95	125
M321-01-070100	100	125
M321-01-070105	105	125
M321-01-070110	110	125
M321-01-070115	115	125
M321-01-070120	120	125
M321-01-070125	125	125
M321-01-070130	130	125
M321-01-070135	135	125
M321-01-070140	140	125
M321-01-070145	145	125
M321-01-070150	150	125
M321-01-070155	155	125
M321-01-070160	160	125
M321-01-070165	165	125
M321-01-070170	170	125
M321-01-070175	175	125
M321-01-070180	180	125
M321-01-070185	185	125

CODE	l±0,05	Max. Load (kN)
M321-01-070190	190	125
M321-01-070195	195	125
M321-01-070200	200	125
M321-01-070205	205	125
M321-01-070210	210	125
M321-01-070215	215	125
M321-01-070220	220	125
M321-01-070225	225	125
M321-01-070230	230	125
M321-01-070235	235	125
M321-01-070240	240	125
M321-01-070245	245	125
M321-01-070250	250	125
M321-01-070260	260	125
M321-01-070270	270	125
M321-01-070280	280	125
M321-01-070290	290	125
M321-01-070300	300	125
M321-01-070310	310	125
M321-01-070320	320	125
M321-01-070330	330	125
M321-01-070340	340	125
M321-01-070350	350	125

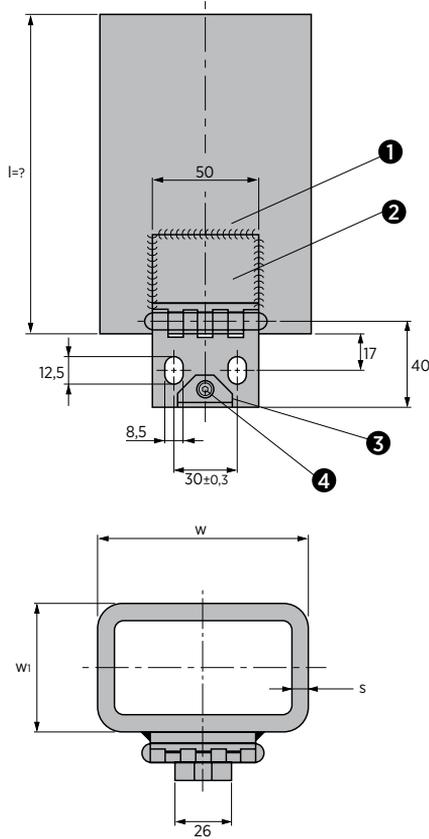
3


- 1 Material :
St 37
- 2 Hinge
- 3 Material :
Elastomer 68 Shore
- 4 Screw M4x8 DIN 912



Length (l) is given by the customer;

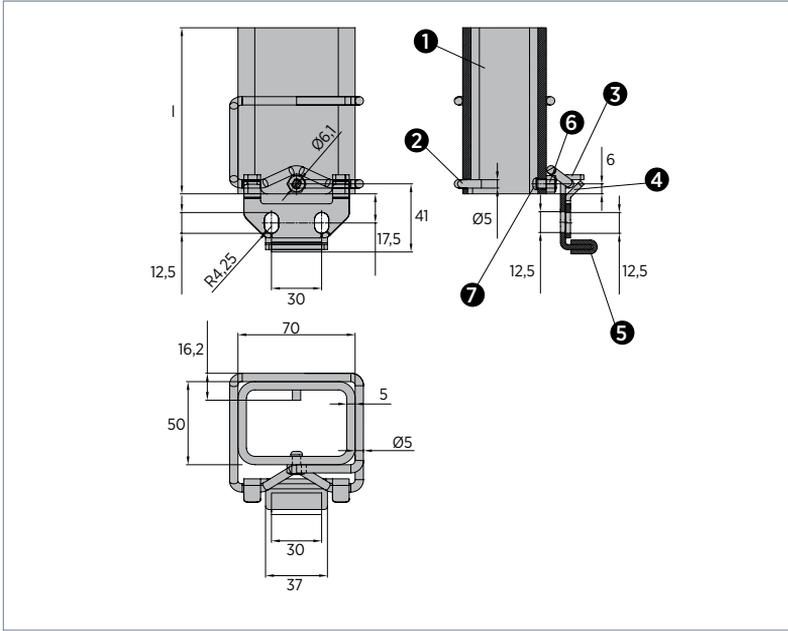
Max. Length: 365 mm



CODE	w	w ₁	s	Max. Load (kN)
M321-01-070-l	70	50	3	125
M321-01-100-l	100	60	8	250

Order Example:
w= 100, l= 200

Order Code:
M321-01-100200



- 1** Material : S235JR
- 2** Material : 1.4310
- 3** Material : S235/DC01
- 4**
- 5** Material : Soft-PVC
- 6** Material : M6 DIN 934
- 7** Material : Rivet Ø5x14 DIN 7337



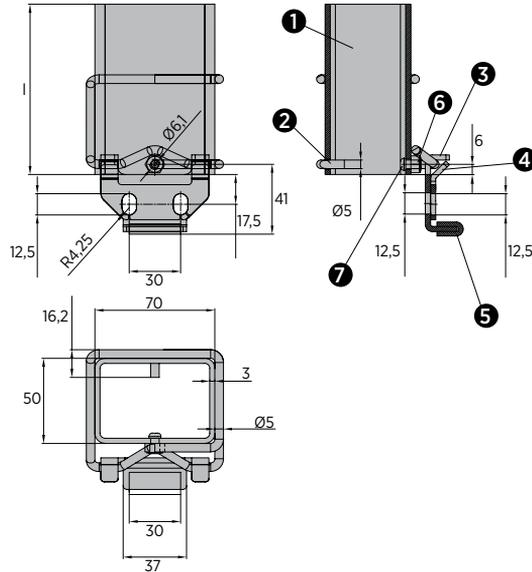
3

CODE	l±0,05	Max. Load (kN)
M321-02-070065	65	235
M321-02-070070	70	235
M321-02-070075	75	235
M321-02-070080	80	235
M321-02-070085	85	235
M321-02-070090	90	235
M321-02-070095	95	235
M321-02-070100	100	235
M321-02-070105	105	235
M321-02-070110	110	235
M321-02-070115	115	235
M321-02-070120	120	235
M321-02-070125	125	235
M321-02-070130	130	235
M321-02-070135	135	235
M321-02-070140	140	235
M321-02-070145	145	235
M321-02-070150	150	235
M321-02-070155	155	235
M321-02-070160	160	235
M321-02-070165	165	235
M321-02-070170	170	235
M321-02-070175	175	235
M321-02-070180	180	235

CODE	l±0,05	Max. Load (kN)
M321-02-070185	185	235
M321-02-070190	190	235
M321-02-070195	195	235
M321-02-070200	200	235
M321-02-070205	205	235
M321-02-070210	210	235
M321-02-070215	215	235
M321-02-070220	220	235
M321-02-070225	225	235
M321-02-070230	230	235
M321-02-070235	235	235
M321-02-070240	240	235
M321-02-070245	245	235
M321-02-070250	250	235
M321-02-070260	260	235
M321-02-070270	270	235
M321-02-070280	280	235
M321-02-070290	290	235
M321-02-070300	300	235
M321-02-070310	310	235
M321-02-070320	320	235
M321-02-070330	330	235
M321-02-070340	340	235
M321-02-070350	350	235


3

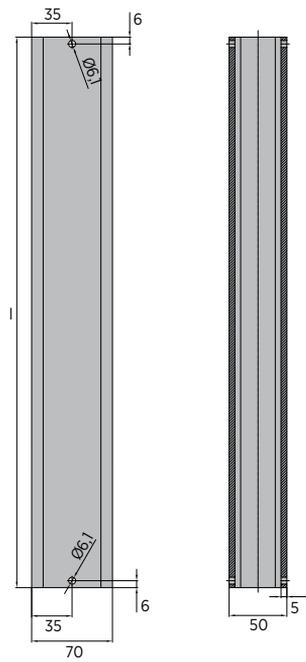

- 1** Material : S235JR
- 2** Material : 1.4310
- 3** Material : S235/DC01
- 4**
- 5** Material : Soft-PVC
- 6** Material : M6 DIN 934
- 7** Material : Rivet Ø5x12 DIN 7337



CODE	±0,05	Max. Load (kN)
M321-03-080065	65	125
M321-03-080070	70	125
M321-03-080075	75	125
M321-03-080080	80	125
M321-03-080085	85	125
M321-03-080090	90	125
M321-03-080095	95	125
M321-03-080100	100	125
M321-03-080105	105	125
M321-03-080110	110	125
M321-03-080115	115	125
M321-03-080120	120	125
M321-03-080125	125	125
M321-03-080130	130	125
M321-03-080135	135	125
M321-03-080140	140	125
M321-03-080145	145	125
M321-03-080150	150	125
M321-03-080155	155	125
M321-03-080160	160	125
M321-03-080165	165	125
M321-03-080170	170	125
M321-03-080175	175	125
M321-03-080180	180	125

CODE	±0,05	Max. Load (kN)
M321-03-080185	185	125
M321-03-080190	190	125
M321-03-080195	195	125
M321-03-080200	200	125
M321-03-080205	205	125
M321-03-080210	210	125
M321-03-080215	215	125
M321-03-080220	220	125
M321-03-080225	225	125
M321-03-080230	230	125
M321-03-080235	235	125
M321-03-080240	240	125
M321-03-080245	245	125
M321-03-080250	250	125
M321-03-080260	260	125
M321-03-080270	270	125
M321-03-080280	280	125
M321-03-080290	290	125
M321-03-080300	300	125
M321-03-080310	310	125
M321-03-080320	320	125
M321-03-080330	330	125
M321-03-080340	340	125
M321-03-080350	350	125


 Material:
 S235JR

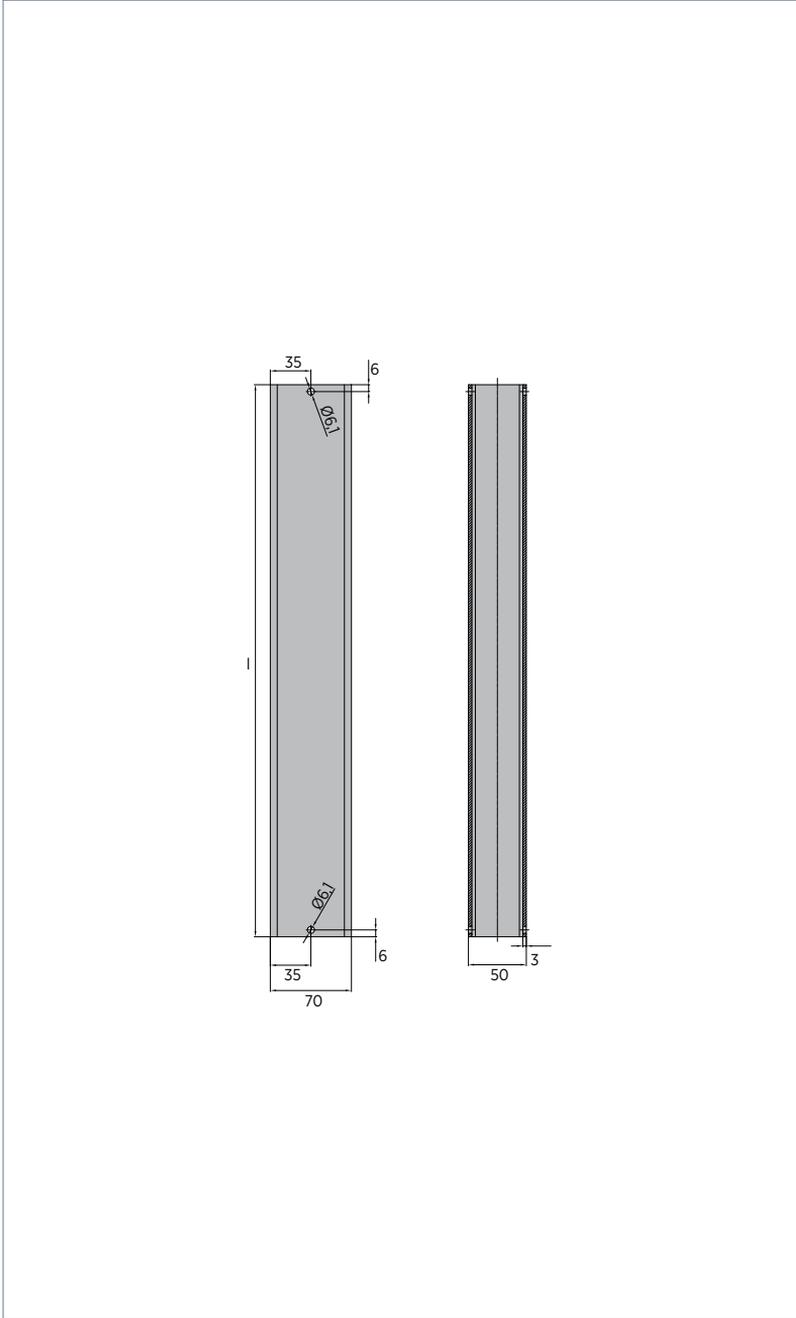
3


CODE	l ± 0,05
M321-04-071	480

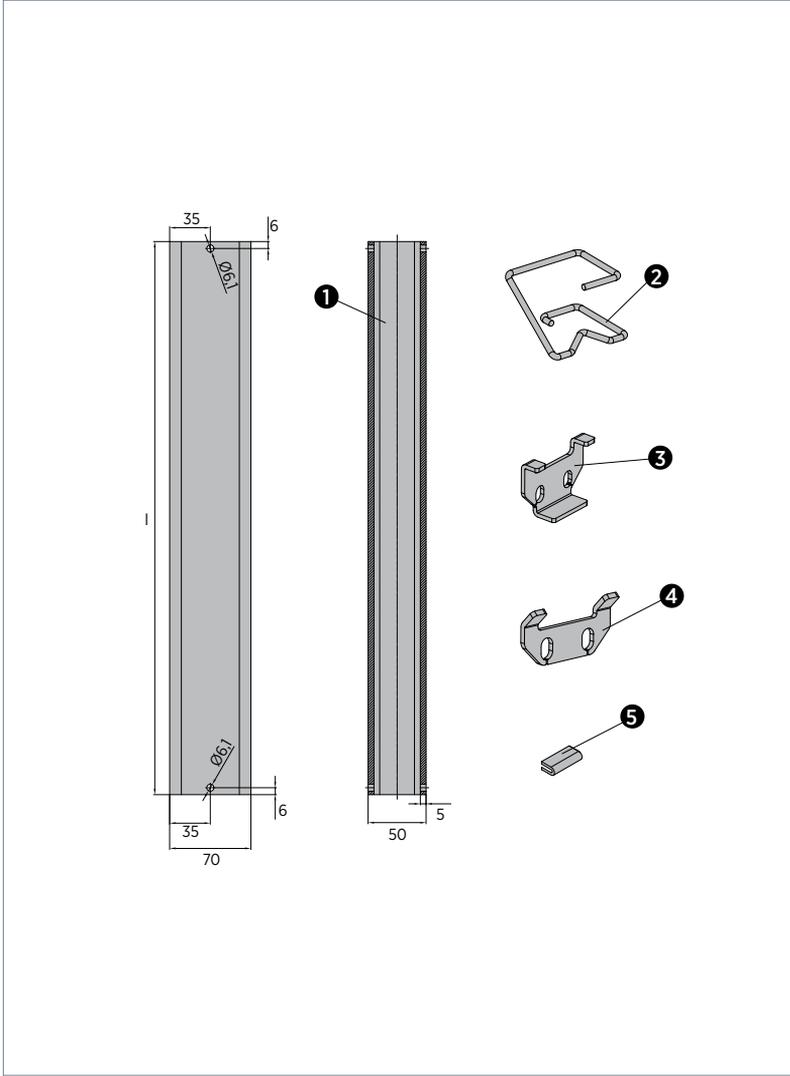
3



Material:
S235JR



CODE	$L \pm 0,05$
M321-04-081	480



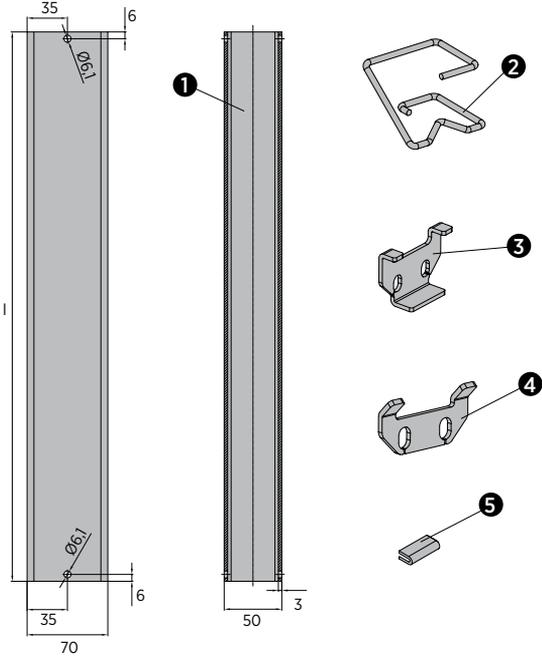
- 1** Material : S235JR
- 2** Material : 1.4310
- 3** Material : S235/DC01
- 4** Material : S235/DC01
- 5** Material : Soft-PVC



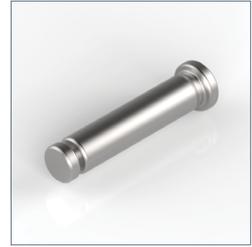
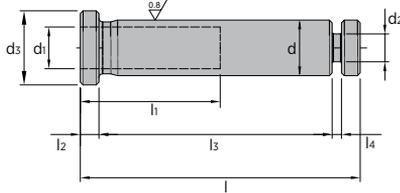
CODE		
	M321-05-75 Set	
1	M321-04-071	50 adet / pcs
2	M321-02/15	100 adet / pcs
3	M321-02/16	100 adet / pcs
4	M321-02/17	100 adet / pcs
5	M321-02/18	4 metre / meter

3

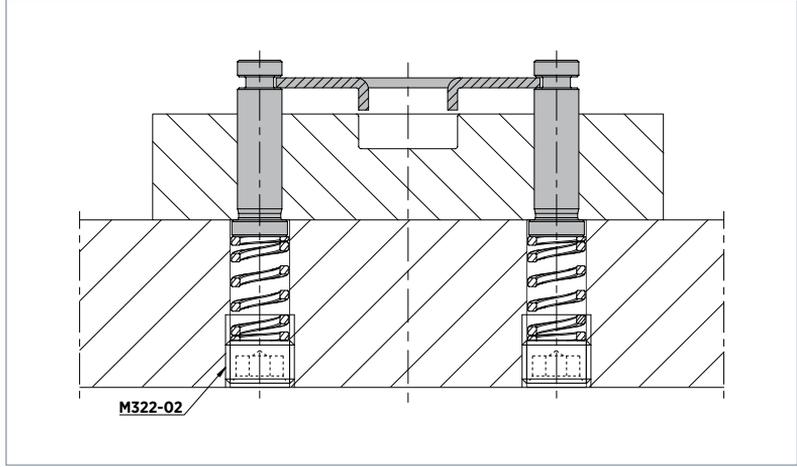

- 1 Material : S235JR
- 2 Material : 1.4310
- 3 Material : S235/DC01
- 4 Material : S235/DC01
- 5 Material : Soft-PVC



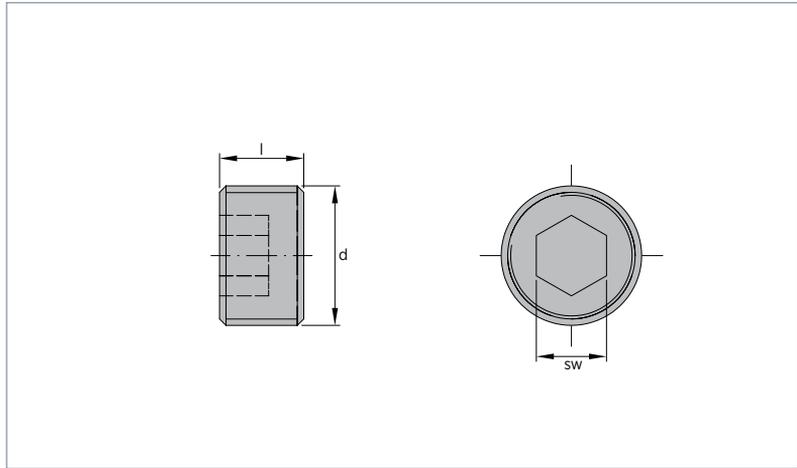
CODE		
	M321-05-85 Set	
1	M321-04-081	50 adet / pcs
2	M321-02/15	100 adet / pcs
3	M321-02/16	100 adet / pcs
4	M321-02/17	100 adet / pcs
5	M321-02/18	4 metre / meter


 Material :
 16MnCr5
 Hardened
 HRC 60

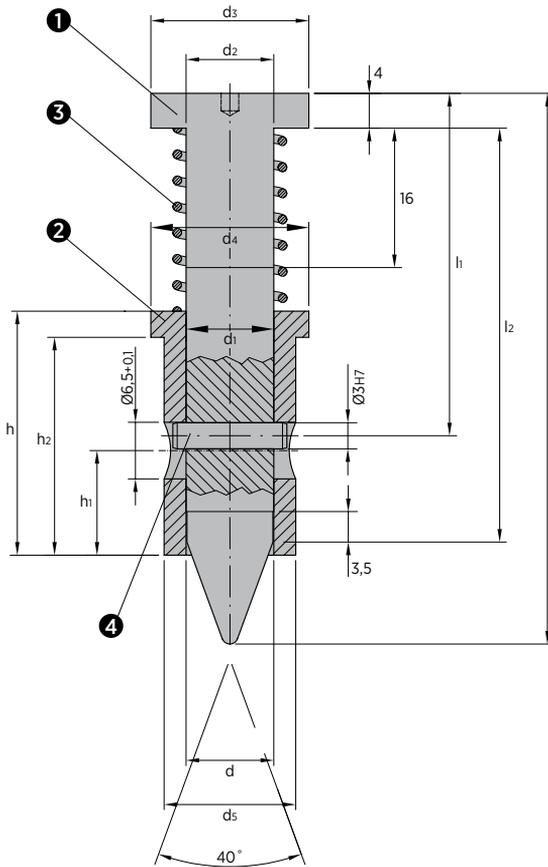

CODE	d h6	l -0,5	h	l ₂	l ₃ ±0,1	l ₄	d ₁	d ₂ -0,05/-0,1	d ₃ -0,2/-0,5
M322-01-0060295	6	29,5	-	2	25	0,5	-	3	8
M322-01-006030	6	30	-	2	25	1	-	3	8
M322-01-0060365	6	36,5	-	2	32	0,5	-	3	8
M322-01-006037	6	37	-	2	32	1	-	3	8
M322-01-008031	8	31	-	3	25	1	-	5	10
M322-01-008032	8	32	-	3	25	2	-	5	10
M322-01-008038	8	38	-	3	32	1	-	5	10
M322-01-008039	8	39	-	3	32	2	-	5	10
M322-01-008046	8	46	-	3	40	1	-	5	10
M322-01-008047	8	47	-	3	40	2	-	5	10
M322-01-010033	10	33	18	3	25	2	6,5	6	12,5
M322-01-010034	10	34	18	3	25	3	6,5	6	12,5
M322-01-010040	10	40	24	3	32	2	6,5	6	12,5
M322-01-010041	10	41	24	3	32	3	6,5	6	12,5
M322-01-010048	10	48	30	3	40	2	6,5	6	12,5
M322-01-010049	10	49	30	3	40	3	6,5	6	12,5
M322-01-012033	12	33	18	3	25	2	8,5	7	16
M322-01-012034	12	34	18	3	25	3	8,5	7	16
M322-01-012040	12	40	24	3	32	2	8,5	7	16
M322-01-012041	12	41	24	3	32	3	8,5	7	16
M322-01-012048	12	48	30	3	40	2	8,5	7	16
M322-01-012049	12	49	30	3	40	3	8,5	7	16
M322-01-016042	16	42	24	3	32	3	10,5	7	20
M322-01-016044	16	44	24	3	32	5	10,5	8	20
M322-01-016050	16	50	30	3	40	3	10,5	8	20
M322-01-016052	16	52	30	3	40	5	10,5	8	20
M322-01-016060	16	60	40	3	50	3	10,5	8	20
M322-01-016062	16	62	40	3	50	5	10,5	8	20
M322-01-020052	20	52	30	5	40	3	12,5	12	25
M322-01-020054	20	54	30	5	40	5	12,5	12	25
M322-01-020062	20	62	40	5	50	3	12,5	12	25
M322-01-020064	20	64	40	5	50	5	12,5	12	25
M322-01-020075	20	75	50	5	63	3	12,5	12	25
M322-01-020077	20	77	50	5	63	5	12,5	12	25


 Material :
 16MnCr5

 Hardened
 HRC 60

M322-02

 Material :
 Steel 12.9


CODE	d	l	SW
M322-02-12010	M12x1,5	10	6
M322-02-14010	M14x1,5	10	6
M322-02-16010	M16x1,5	10	8
M322-02-18010	M18x1,5	10	10
M322-02-20012	M20x1,5	12	10
M322-02-22012	M22x1,5	12	12
M322-02-24012	M24x1,5	12	14
M322-02-27012	M27x1,5	12	14
M322-02-36012	M36x1,5	12	17


3

1 Punch 1.2550

 Hardness
 50 ± 2 HRC

2 Bush 1.3505

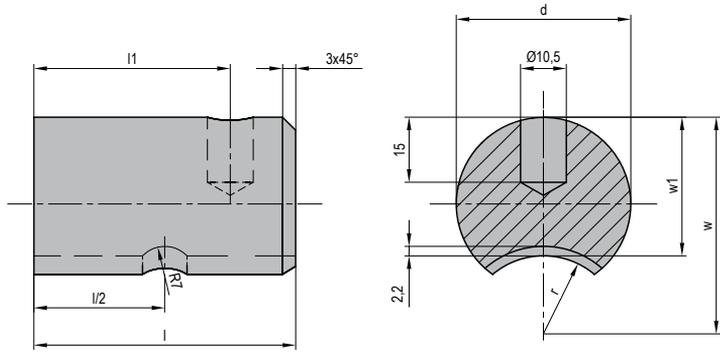
 Hardness
 58 ± 2 HRC

3 Coil Spring

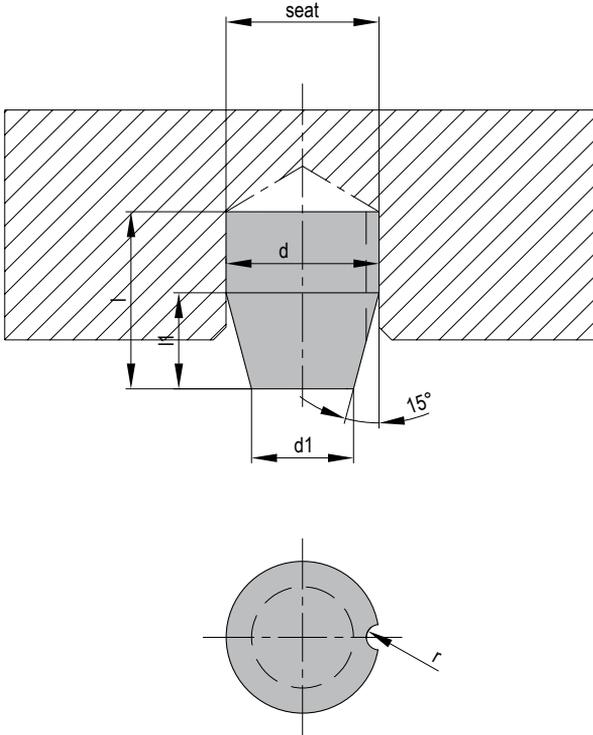
4 $\varnothing 3 \times 14$ DIN 6325

CODE	d +0,05	l	h ₁	h ₂	l ₂	d ₁ H7, f7	d ₂	d ₃	d ₄	d ₅ f7	h	h ₁	h ₂ +0,1	Spring force preloaded (daN)	Spring force pressed (daN)
M323-01-0980632	9,8	63,2	39,3	47,5	10	10	10	18	18	15	28	12	25	4,9	6,2
M323-01-1580725	15,8	72,5	46,3	54,5	16	16	16	24	30	26	28	12	25	4,8	5,6


3

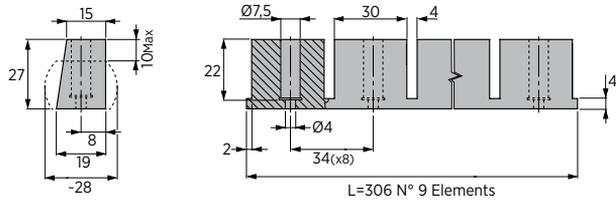
 Material :
 Elastomer 92 Sh


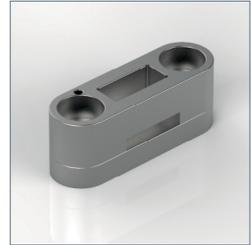
CODE	d ±0,25	w	l	l1	l/2	w1	r
S510-02-040060	40	50	60	45	30	32	18
S510-02-050080	50	63	80	60	40	40	23
S510-02-063080	63	86	80	60	40	51	35


 Material :
 Elastomer 92 Shore

3

CODE	d +0,3 / +0,5	l	h	d ₁	r	seat ±0,1	F max. (N)
S511-01-006	6	9,5	4,5	3,6	-	6	100
S511-01-010	10	15,5	7,5	6	1	10	450
S511-01-016	16	25	12	9,5	1,5	16	1500
S511-01-024	24	25	10	18	2	24	3000
S511-01-030	30	35	19	20	2,5	30	3000
S511-01-032	32	32	14	24	3	32	12000
S511-01-039	39,5	40	16	30	3	39,5	25000


 Material :
 Elastomer 70 Shore

CODE
S515-03-0017

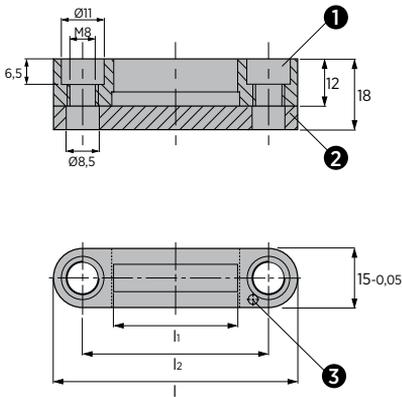


3

1 Material :
CK45

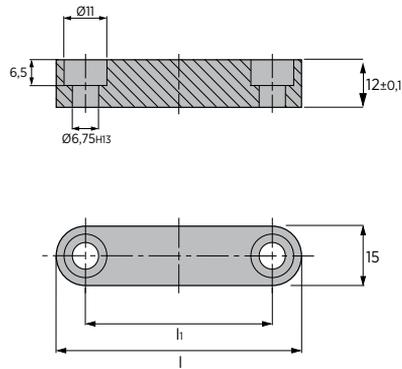


3 ELASTIC PIN Ø2.5x14
DIN 1481

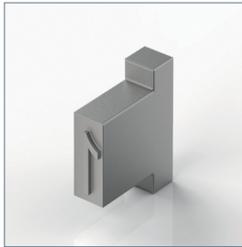
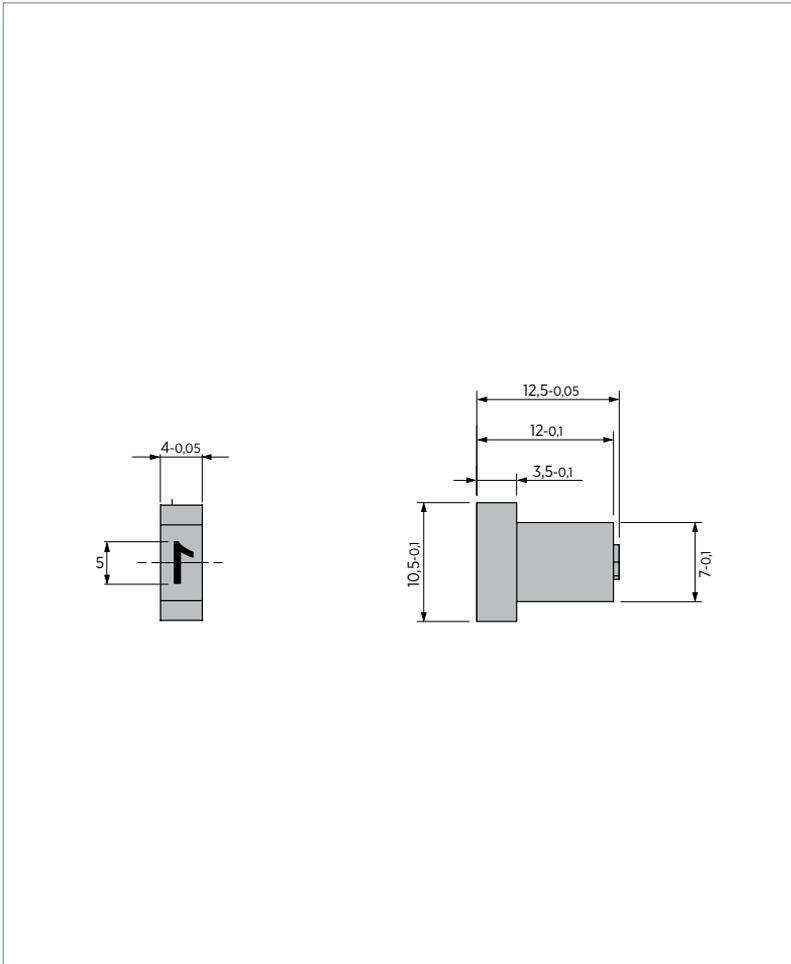


CODE	l -0,05	h +0,1	l ₂	Number of Stamps
Z401-01-045	45	12	30	6
Z401-01-047	47	16	32	8
Z401-01-055	55	24	40	12
Z401-01-063	63	32	48	16
Z401-01-071	71	40	56	20

3

 Material :
 CK45


CODE	l	h
Z401-02-045	45	30
Z401-02-047	47	32
Z401-02-056	55	40
Z401-02-063	63	48
Z401-02-071	71	56



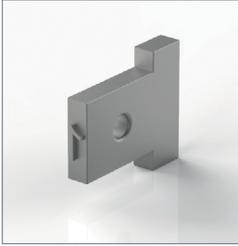
Material :
X153CrMoV12
Hardened
HRC 54 ÷ 56

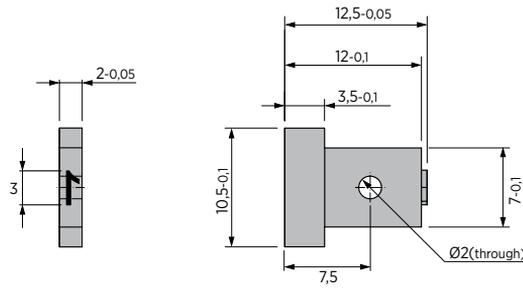


CODE	Stamp
Z401-06-000	0
Z401-06-001	1
Z401-06-002	2
Z401-06-003	3
Z401-06-004	4
Z401-06-005	5
Z401-06-006	6 or 9
Z401-06-007	7
Z401-06-008	8
Z401-06-009	A
Z401-06-010	B
Z401-06-011	C
Z401-06-012	D

CODE	Stamp
Z401-06-013	E
Z401-06-014	F
Z401-06-015	G
Z401-06-016	H
Z401-06-017	I
Z401-06-018	J
Z401-06-019	K
Z401-06-020	L
Z401-06-021	M
Z401-06-022	N
Z401-06-023	O
Z401-06-024	P
Z401-06-025	Q

CODE	Stamp
Z401-06-026	R
Z401-06-027	S
Z401-06-028	T
Z401-06-029	U
Z401-06-030	V
Z401-06-031	W
Z401-06-032	X
Z401-06-033	Y
Z401-06-034	Z
Z401-06-035	Space
Z401-06-036	-
Z401-06-037	_


 Material :
 X153CrMoV12

 Hardened
 HRC 54 ÷ 56


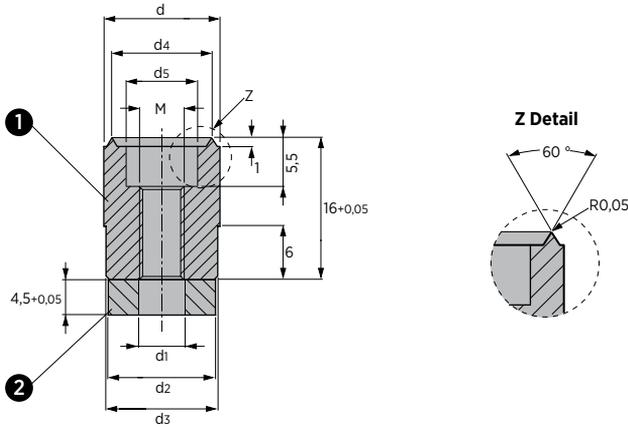
CODE	Stamp
Z401-07-000	0
Z401-07-001	1
Z401-07-002	2
Z401-07-003	3
Z401-07-004	4
Z401-07-005	5
Z401-07-006	6 or 9
Z401-07-007	7
Z401-07-008	8
Z401-07-009	A
Z401-07-010	B
Z401-07-011	C
Z401-07-012	D

CODE	Stamp
Z401-07-013	E
Z401-07-014	F
Z401-07-015	G
Z401-07-016	H
Z401-07-017	I
Z401-07-018	J
Z401-07-019	K
Z401-07-020	L
Z401-07-021	M
Z401-07-022	N
Z401-07-023	O
Z401-07-024	P
Z401-07-025	Q

CODE	Stamp
Z401-07-026	R
Z401-07-027	S
Z401-07-028	T
Z401-07-029	U
Z401-07-030	V
Z401-07-031	W
Z401-07-032	X
Z401-07-033	Y
Z401-07-034	Z
Z401-07-035	Space
Z401-07-036	-
Z401-07-037	_



3

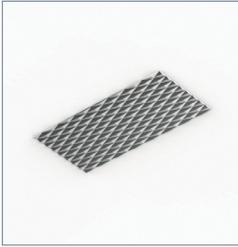


1 Material :
X205Cr12KU
Hardened
HRC 60 ÷ 62

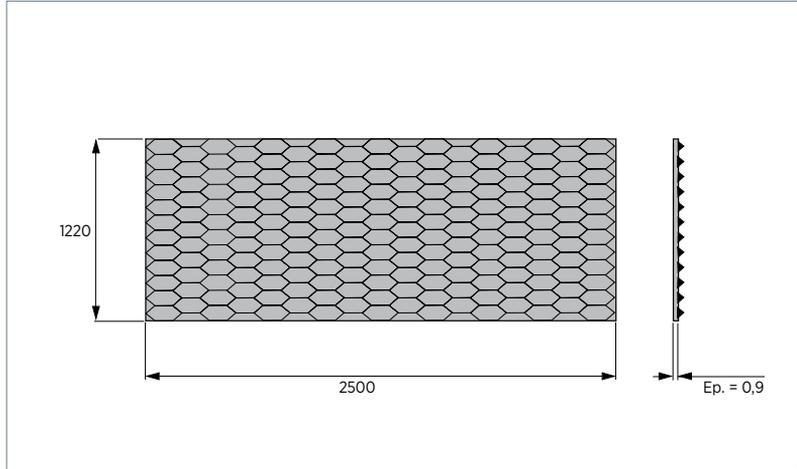


2 Material: X205Cr12KU

CODE	d d9	d1	d2	d3	d4 ±0,1	d5	M
Z402-03-010	10	4,2	9,9	9,5	8	6	M4
Z402-03-013	13	5,2	12	12,5	11,2	8	M5

3


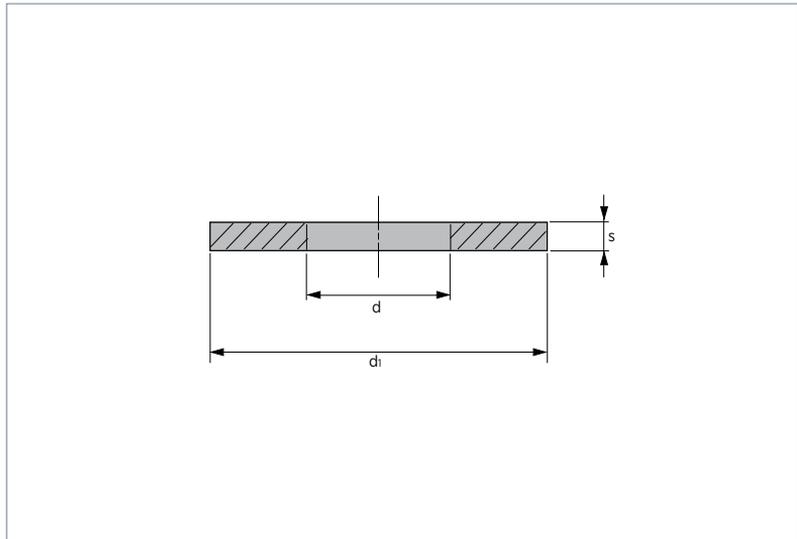
Material :
Stainless Steel



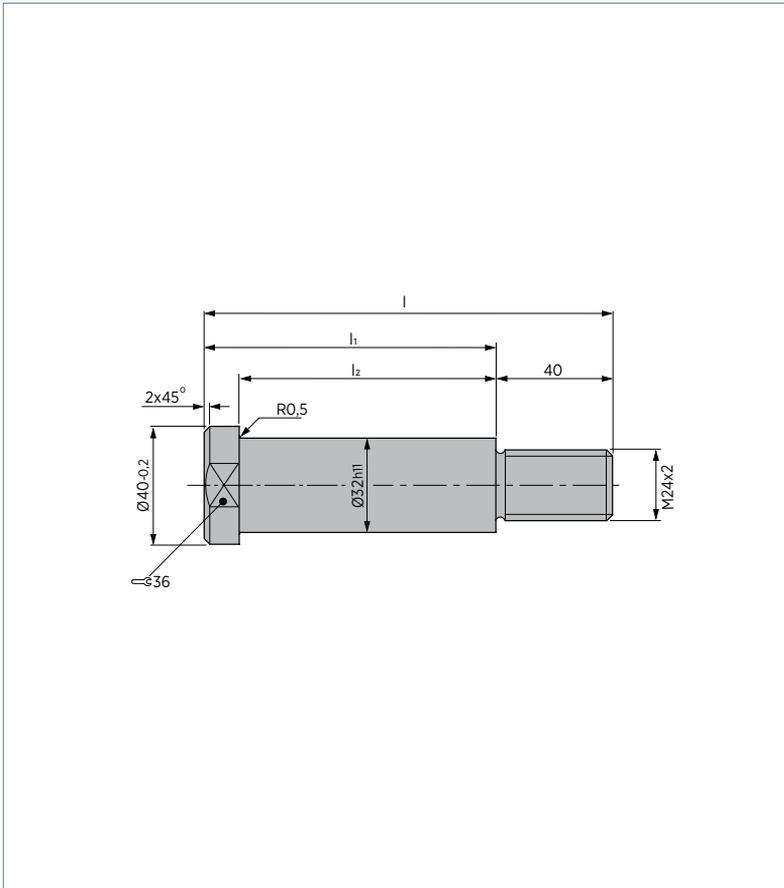
CODE	Dimensions mm
Z000166439	2500x1220xep,0,9



Material :
CK45



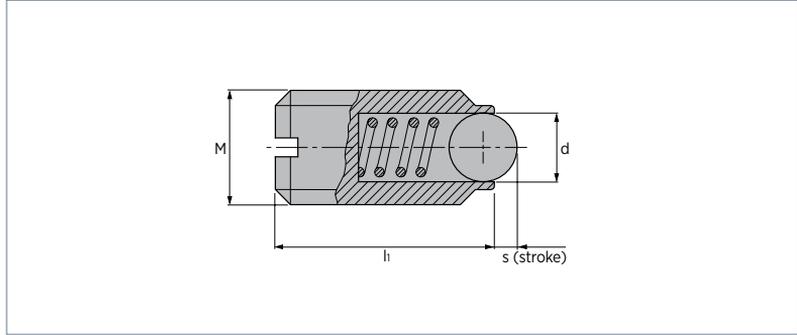
CODE	d	d ₁	s
A101-15-001	33	80	6
A101-15-002	33	100	8


 Material :
 42CrMo4
 1000 ÷ 1200 N/mm²


3

CODE	l	l ₁	l ₂
M307-04-048	100	60	48
M307-04-068	120	80	68
M307-04-088	140	100	88
M307-04-108	160	120	108
M307-04-128	180	140	128
M307-04-148	200	160	148
M307-04-168	220	180	168
M307-04-188	240	200	188
M307-04-208	260	220	208
M307-04-228	280	240	228
M307-04-248	300	260	248
M307-04-268	320	280	268
M307-04-288	340	300	288

3

 Material :
 Steel Class 5.8
 Hardened inox.


CODE	d	h	s	M	Initial Force (N)	Final Force (N)
M314-01-004	2.5	9	0.8	M4	6	12
M314-01-005	3	12	0.9	M5	7	13
M314-01-006	3.5	14	1.0	M6	9	15
M314-01-008	5	16	1.5	M8	20	35
M314-01-010	6	19	2.0	M10	25	45
M314-01-012	8	22	2.5	M12	35	60
M314-01-016	10	24	3.5	M16	65	110


 Material :
 C80W2

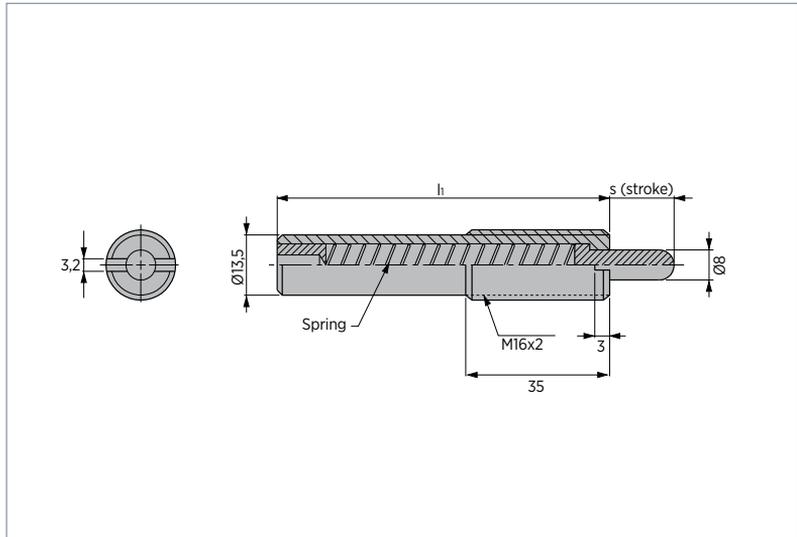
 Hardened
 HRC 36 ÷ 40

Body 34CrMo4

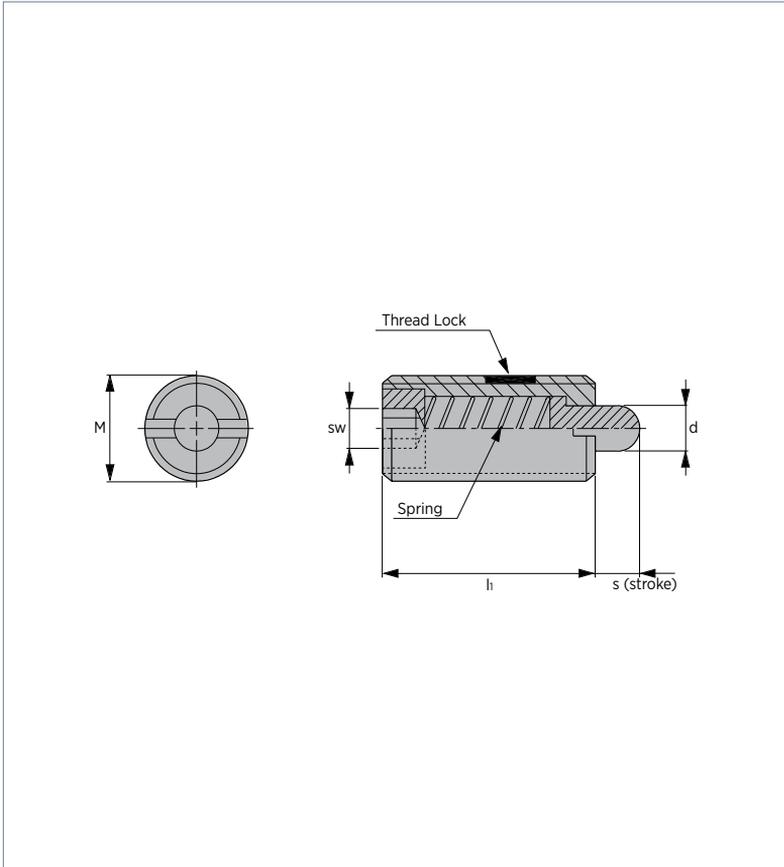
Springs C80W2

 Hardened
 HRC 36 ÷ 40

Black oxide finish.



CODE	l ₁	s	Initial Force (N)	Final Force (N)
M314-02-060	150	60	11	45
M314-02-080	200	80	2	38


 Material :
 90Mn4

 Hardened
 HRC 36 ÷ 40

Body 34CrMo4

Black oxide finish.

CODE	d	h	s	sw	M	Initial Force N (Kgf)	Final Force N (Kgf)
M314-03-001	1	10	1,5	0,8	M3x0,5	0,4 (0,05)	2,9 (0,3)
M314-03-002	1,6	12	2	0,8	M4x0,7	1,9 (0,2)	9,8 (1,0)
M314-03-003	2	20	3	1,5	M5x0,8	3,9 (0,4)	19,6 (2,0)
M314-03-004	2	13	3	1,5	M5x0,8	1,9 (0,2)	7,8 (0,8)
M314-03-005	2	20	3	1,5	M5x0,8	1,9 (0,2)	9,8 (1,0)
M314-03-006	2,5	25	3	2,0	M6x1,0	2,9 (0,3)	9,8 (1,0)
M314-03-007	2,5	25	3	2,0	M6x1,0	7,8 (0,8)	29,4 (3,0)
M314-03-008	3,1	25	3	2,5	M8x1,25	2,9 (0,3)	9,8 (1,0)
M314-03-009	3,1	25	3	2,5	M8x1,25	7,8 (0,8)	29,4 (3,0)
M314-03-010	3,8	30	5	3,0	M10x1,5	2,9 (0,3)	14,7 (1,5)
M314-03-011	3,8	30	5	3,0	M10x1,5	9,8 (1,0)	49,0 (5,0)
M314-03-012	5,5	30	5	4,0	M12x1,75	1,9 (0,2)	9,8 (1,0)
M314-03-013	5,5	30	5	4,0	M12x1,75	9,8 (1,0)	49,0 (5,0)

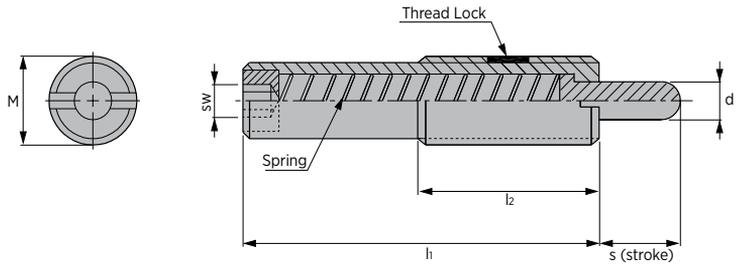
3


Material :
Pin 90Mn4

Hardened
HRC 36 ÷ 40

Body 34CrMo4

Black oxide finish.

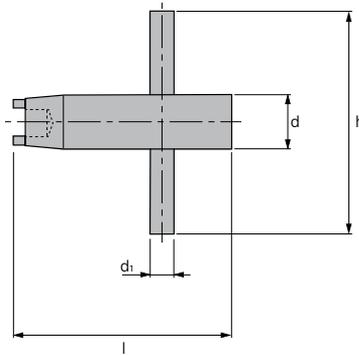


CODE	d	h	l ₂	s	sw	M	Initial Force N (Kgf)	Final Force N (Kgf)
M314-04-001	5,5	43	35	10	4	M12x1,75	3,9 (0,4)	19,6 (2)
M314-04-002	5,5	43	35	10	4	M12x1,75	6,8 (0,7)	39,2 (4)
M314-04-003	8	50	35	10	5	M16x2,0	9,8 (1)	49,0 (5)
M314-04-004	8	50	35	10	5	M16x2,0	19,6 (2)	98,0 (10)
M314-04-005	8	60	35	10	5	M16x2,0	12,7 (1,3)	39,2 (4)
M314-04-006	8	60	35	10	5	M16x2,0	26,4 (2,7)	78,4 (8)
M314-04-007	8	60	35	15	5	M16x2,0	9,8 (1)	39,2 (4)
M314-04-008	8	60	35	15	5	M16x2,0	14,7 (1,5)	78,4 (8)
M314-04-009	8	85	35	20	5	M16x2,0	12,7 (1,3)	39,2 (4)
M314-04-010	8	85	35	20	5	M16x2,0	16,6 (1,7)	78,4 (8)
M314-04-011	8	125	35	30	5	M16x2,0	19,6 (1,8)	78,4 (4)
M314-04-012	8	125	35	30	5	M16x2,0	19,6 (2)	78,4 (8)
M314-04-013	8	155	35	50	8	M16x2,0	19,6 (2)	49,0 (5)
M314-04-014	8	155	35	50	8	M16x2,0	29,4 (3)	98,0 (10)
M314-04-015	10	60	45	15	8	M24x3,0	19,6 (2)	98,0 (10)
M314-04-016	10	60	45	15	8	M24x3,0	39,2 (4)	196,1 (20)
M314-04-017	15	70	45	20	12	M30x3,5	29,4 (3)	147,0 (15)
M314-04-018	15	70	45	20	12	M30x3,5	49,0 (5)	294,1 (30)


 Material :
 Steel

 Hardened
 HRC 36 ÷ 40

Black oxide finish.



CODE	d	h	l	d ₁	Spring Plunger
M314-05-006	6	40	40	3	M5, M6
M314-05-008	8	45	45	4	M8
M314-05-010	10	45	45	4	M10
M314-05-012	12	50	50	5	M12
M314-05-016	16	70	52	8	M16
M314-05-024	24	80	62	12	M24
M314-05-030	30	100	73	15	M30

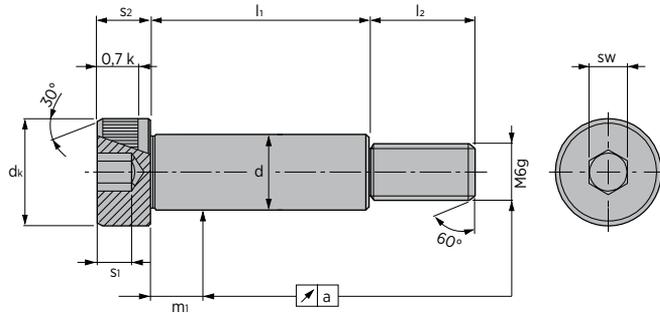

3

 Material :
 High grade alloy steel
 ISO 12.9

 Hardened
 HRC 39 ± 44

 Tensile Strength $R_m = 1200$
 N/mm²
 Yield Strength $R_p = 1080$ N/mm²
 Shear Strength $T_m = 720$ N/mm²
 Elongation $A = \%8$ min.
 Impact Test : KCU 15J min.

m1 measuring point = "d"

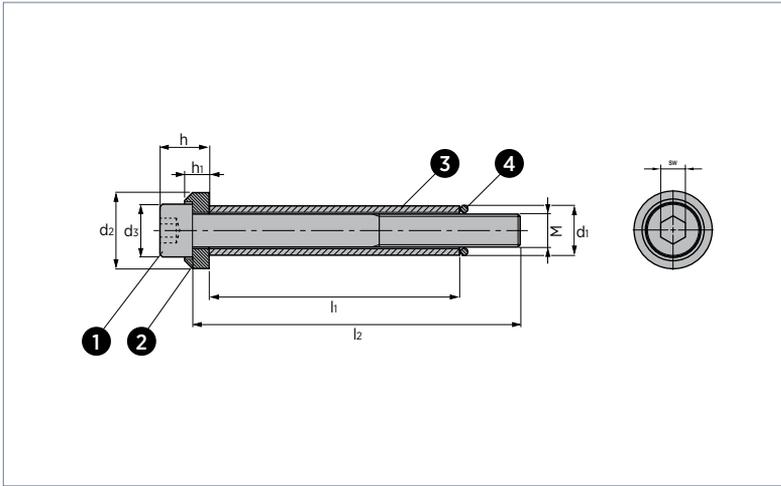


d h8	6	8	10	12	16	20	24
M	M5	M6	M8	M10	M12	M16	M20
dk / s2	10/ 4,5	13/ 5,5	16/ 7	18/ 9	24/ 11	30/ 14	36/ 16
l2 ±0,25	9,5	11	13	16	18	22	27
s1 / sw	2,4/3	3,3/4	4,2/5	4,9/6	6,6/8	8,8/10	10/12
l1 js11							
10	•						
12	•	•					
15	•	•	•	•			
16	•	•	•	•			
20	•	•	•	•			
25	•	•	•	•			
30	•	•	•	•	•		

d h8	6	8	10	12	16	20	24
l1 js11							
35	•	•	•	•	•		
40	•	•	•	•	•	•	
45	•	•	•	•	•	•	
50	•	•	•	•	•	•	•
55	•	•	•	•	•	•	•
60	•	•	•	•	•	•	•
65		•	•	•	•	•	•
70		•	•	•	•	•	•
80		•	•	•	•	•	•
90		•	•	•	•	•	•
100		•	•	•	•	•	•
120				•	•	•	•

Order Example:
 d= 6, l1= 10

Order Code:
 M315-01-0506010



- 1 DIN 912 cl. 12.9
 - 2 Material: Steel 1000 N/mm²
 - 3 Material: Steel 1200 ÷ 1400 N/mm²
 - 4 O-Ring*
- * Remove before assembly



3

d₁ h₇	10	12,5	15	17,5	23
M	M6	M8	M10	M12	M16
d₂	15	19	23	27	34
d₃	10	13	16	18	24
h	10	13	15	18	24
h₁	5,5	6,5	7,5	9	11
sw	5	6	8	10	14
l₁ ±0,1	l₂				
20	35				
25	40				
30	45	45	50		
35	50	50	55		
40	55	55	60	60	
45	60	60	65	65	
50	65	65	70	70	80
55	70	70	75	80	
60	80	80	80	90	90
70	90	90	90	100	100
80	100	100	100	110	110
90	110	110	110	120	120
100	120	120	120	130	130
110				140	140
120			140	150	150
140				170	180
150					180
160					200

Order Example:
M= 6, l= 20

Order Code:
M315-02-06020

3

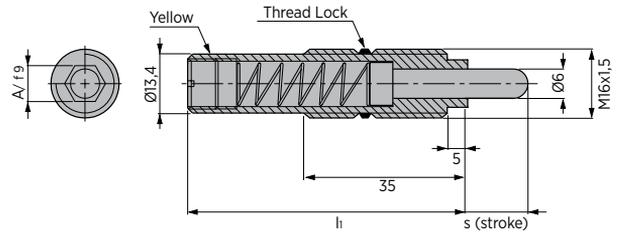

Material :
Pin 90Mn4

Hardened
HRC 36 ÷ 40

Body 34CrMo4

Black oxide finish.

Colour marking yellow.



CODE	h	s	Spring Rate (N/mm)	Initial Force N	Final Force N
S504-03-010060	60	10	0,95	3,8	13,3
S504-03-015060	60	15	2	10	40
S504-03-020080	80	20	1,38	6,9	34,5
S504-03-030080	80	30	1,3	6,5	45,5
S504-03-030120	120	30	0,73	18	40
S504-03-040150	150	40	0,6	13,2	37,2
S504-03-050150	150	50	0,6	13,2	43,2
S504-03-060150	150	60	0,6	13,2	49,2
S504-03-070200	200	70	0,44	9,68	40,5
S504-03-080200	200	80	0,44	9,68	44,8

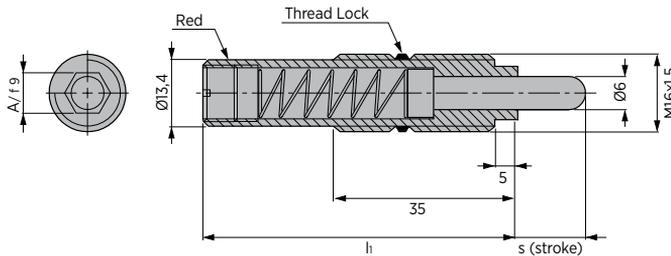

 Material :
 Pin 90Mn4

 Hardened
 HRC 36 ÷ 40

Body 34CrMo4

Black oxide finish.

Colour marking red.



CODE	h	s	Spring Rate (N /mm)	Initial Force (N)	Final Force (N)
S504-04-010060	60	10	3,25	13	45,5
S504-04-015060	60	15	2,60	15	56,0
S504-04-020080	80	20	6,90	34,5	172,5
S504-04-030120	120	30	2	20	80,0
S504-04-030150	150	30	2,55	56,1	132,6
S504-04-040150	150	40	2,55	56,1	158,1
S504-04-050200	200	50	1,61	19,3	99,9
S504-04-060200	200	60	1,61	19,3	116,1
S504-04-070200	200	70	1,61	19,3	132,1
S504-04-080200	200	80	0,94	25	100,1

3

 Material :
 Pin 90Mn4

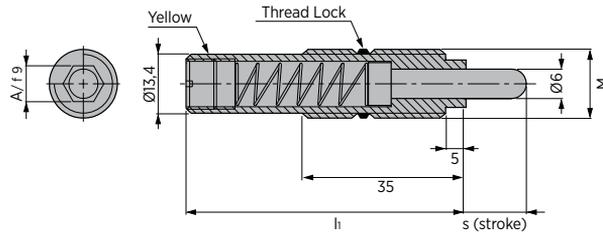
 Hardened
 HRC 36 ÷ 40

Body 34CrMo4

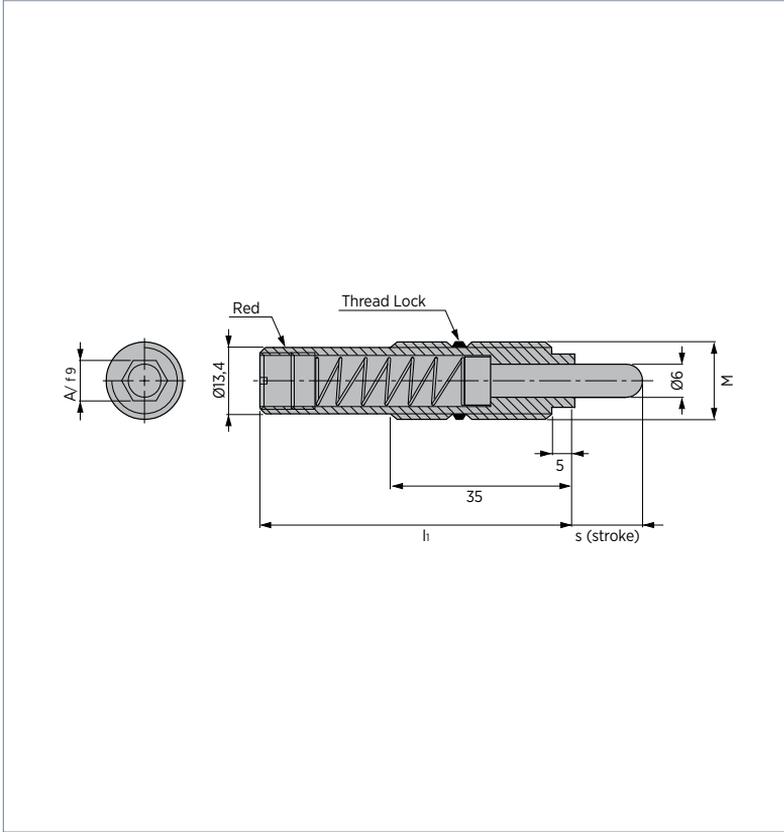
Black oxide finish.

Colour marking yellow.

***The spring pin made from high performance plastic with additives permits lateral loading of max. 15° depending on the stroke length.**



CODE	M	h	s	Spring Rate (N /mm)	Initial Force N	Final Force N
S504-05-010060	16x1,5	60	10	0,95	3,8	13,3
S504-05-010060-002	16x2	60	10	0,95	3,8	13,3
S504-05-015060	16x1,5	60	15	2	10	40
S504-05-015060-002	16x2	60	15	2	10	40
S504-05-020080	16x1,5	80	20	1,38	6,9	34,5
S504-05-020080-002	16x2	80	20	1,38	6,9	34,5
S504-05-030080	16x1,5	80	30	1,3	6,5	45,5
S504-05-030080-002	16x2	80	30	1,3	6,5	45,5
S504-05-030120	16x1,5	120	30	0,73	18	40
S504-05-030120-002	16x2	120	30	0,73	18	40
S504-05-040150	16x1,5	150	40	0,6	13,2	37,2
S504-05-040150-002	16x2	150	40	0,6	13,2	37,2
S504-05-050150	16x1,5	150	50	0,6	13,2	43,2
S504-05-050150-002	16x2	150	50	0,6	13,2	43,2


 Material :
 Pin 90Mn4

 Hardened
 HRC 36 ÷ 40

Body 34CrMo4

Black oxide finish.

Colour marking red.

***The spring pin made from high performance plastic with additives permits lateral loading of max. 15° depending on the stroke length.**

CODE	M	li	s	Spring Rate (N /mm)	Initial Force (N)	Final Force (N)
S504-06-010060	16x1,5	60	10	3,25	13	45,5
S504-06-010060-002	16x2	60	10	3,25	13	45,5
S504-06-015060	16x1,5	60	15	2,6	15	56
S504-06-015060-002	16x2	60	15	2,6	15	56
S504-06-020080	16x1,5	80	20	6,9	34,5	172,5
S504-06-020080-002	16x2	80	20	6,9	34,5	172,5
S504-06-030120	16x1,5	120	30	2	20	80
S504-06-030120-002	16x2	120	30	2	20	80
S504-06-030150	16x1,5	150	30	2,55	56,1	132,6
S504-06-030150-002	16x2	150	30	2,55	56,1	132,6
S504-06-040150	16x1,5	150	40	2,55	56,1	158,1
S504-06-040150-002	16x2	150	40	2,55	56,1	158,1
S504-06-050200	16x1,5	200	50	1,61	19,3	99,9
S504-06-050200-002	16x2	200	50	1,61	19,3	99,9


3

 Material :
 Pin 90Mn4

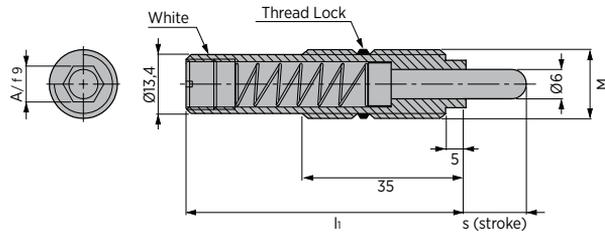
 Hardened
 HRC 36 ÷ 40

Body 34CrMo4

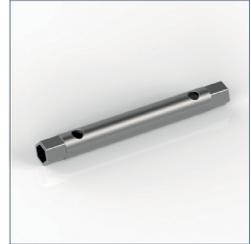
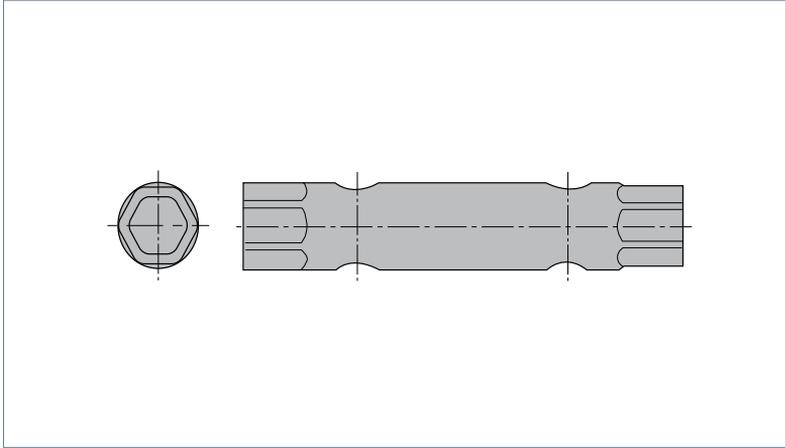
Black oxide finish.

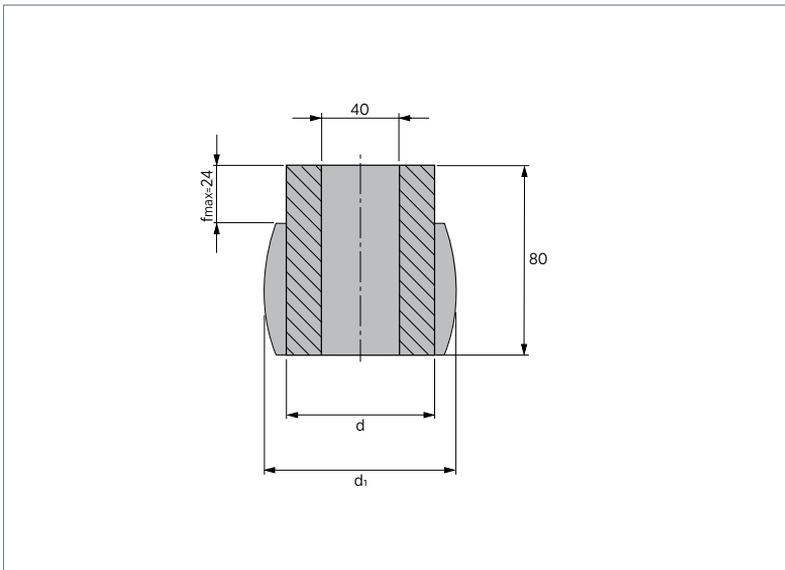
Colour marking white.

***The spring pin made from high performance plastic with additives permits lateral loading of max. 15° depending on the stroke length.**



CODE	M	h _i	s	Spring Rate (N/mm)	Initial Force N	Final Force N
S504-07-020080	16x1,5	80	20	3,02	15,1	75,6
S504-07-020080-002	16x2	80	20	3,02	15,1	75,6


 Material :
 Steel

3
CODE
S504-08-016

 Material :
 Elastomer 92 Shore A

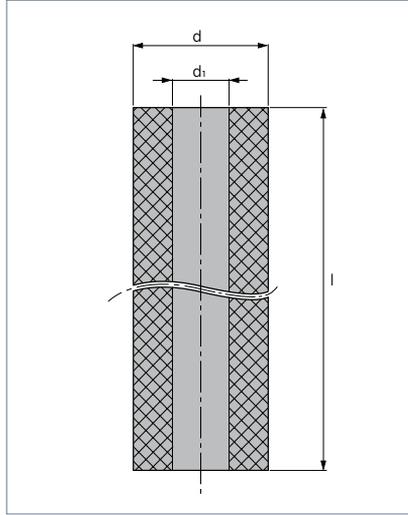

CODE	d	di
S510-05-003	80	106
S510-05-004	90	117

3


Material :
 Polyurethane - Ultraflex

Hardness - Color - Deflection

82 Shore A - Yellow	%35
92 Shore A - Red	%30
94 Shore A - Green	%25



CODE	d	d ₁	l
S512-1XX-0160250	16	6,5	250
S512-1XX-0200250	20	8,5	250
S512-1XX-0250250	25	10,5	250
S512-1XX-0320500	32	13,5	500
S512-1XX-0400500	40	13,5	500
S512-1XX-0500500	50	17	500
S512-1XX-0630500	63	17	500
S512-1XX-0800500	80	21	500
S512-1XX-1000500	100	21	500
S512-1XX-1250500	125	27	500

Order Example:
 d= 32, l= 500, Hardness= 92 Sh

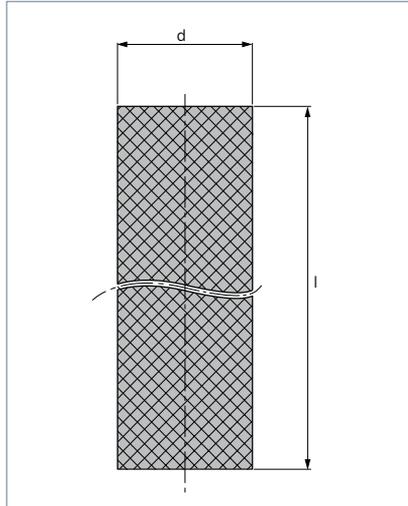
Order Code:
 S512-192-0320500



Material :
 Polyurethane - Ultraflex

Hardness - Color - Deflection

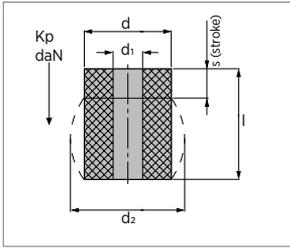
82 Shore A - Yellow	%35
92 Shore A - Red	%30
94 Shore A - Green	%25



CODE	d	l
S513-1XX-0160250	16	250
S513-1XX-0200250	20	250
S513-1XX-0250250	25	250
S513-1XX-0320500	32	500
S513-1XX-0400500	40	500
S513-1XX-0500500	50	500
S513-1XX-0630500	63	500
S513-1XX-0800500	80	500
S513-1XX-1000500	100	500
S513-1XX-1250500	125	500

Order Example:
 d= 32, l= 500, Hardness= 92 Sh

Order Code:
 S513-192-0320500

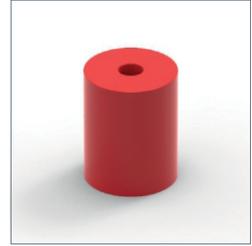


Material:
 Polyurethane - Ultraflex

Hardness - Colour - Deflection
 82 Shore A - Yellow %35
 92 Shore A - Red %30
 94 Shore A - Green %25

Order Example:
d= 32, l= 50, Hardness= 92 Sh

Order Code:
 S514-192-032050



				S514-182			S514-192			S514-194		
				Mak. Esneme %35 Ultrafleks 82 Shore Yellow			Mak. Esneme %30 Ultrafleks 92 Shore Red			Mak. Esneme %25 Ultrafleks 94 Shore Green		
dxl	d	d1	l	s	d2	Kp	s	d2	Kp	s	d2	Kp
mm	mm	mm	mm	mm	mm	daN	mm	mm	daN	mm	mm	daN
016 x 16	16	6,5	16	5,6	22	80	4,8	19	130	4	19	160
016 x 20	16	6,5	20	7	22	80	6	19	130	5	19	160
016 x 25	16	6,5	25	9	22	80	7,5	19	130	6	19	160
016 x 32	16	6,5	32	11,2	22	80	9,6	19	130	8	19	160
020 x 16	20	8,5	16	6	28	150	4,8	26	200	4	25	325
020 x 20	20	8,5	20	7	28	150	6	26	200	5	25	325
020 x 25	20	8,5	25	9	28	150	7,5	26	200	6	25	325
020 x 32	20	8,5	32	11,2	28	150	9,6	26	200	8	25	325
020 x 40	20	8,5	40	14	28	150	12	26	200	10	25	325
025 x 16	25	10,5	16	6	33	210	4,8	30	300	4	29	450
025 x 20	25	10,5	20	7	33	210	6	30	300	5	29	450
025 x 25	25	10,5	25	9	33	210	7,5	30	300	6	29	450
025 x 32	25	10,5	32	11	33	210	9,6	30	300	8	29	450
025 x 40	25	10,5	40	14	33	210	12	30	300	10	29	450
025 x 50	25	10,5	50	17,5	33	210	15	30	300	13	29	450
032 x 16	32	13,5	16	6	43	360	4,8	41	580	4	38	800
032 x 20	32	13,5	20	7	43	360	6	41	580	5	38	800
032 x 25	32	13,5	25	9	43	360	7,5	41	580	6	38	800
032 x 32	32	13,5	32	11	43	360	9,6	41	580	8	38	800
032 x 40	32	13,5	40	14	43	360	12	41	580	10	38	800
032 x 50	32	13,5	50	18	43	360	15	41	580	13	38	800
032 x 63	32	13,5	63	22	43	360	19	41	580	16	38	800
040 x 20	40	13,5	20	7	54	650	6	50	1250	5	47	1500
040 x 25	40	13,5	25	9	54	650	7,5	50	1250	6	47	1500
040 x 32	40	13,5	32	11	54	650	9,6	50	1250	8	47	1500
040 x 40	40	13,5	40	14	54	650	12	50	1250	10	47	1500
040 x 50	40	13,5	50	18	54	650	15	50	1250	13	47	1500
040 x 63	40	13,5	63	22	54	650	19	50	1250	16	47	1500
040 x 80	40	13,5	80	28	54	650	24	50	1250	20	47	1500
050 x 25	50	17	25	9	65	1100	7,5	62	1700	6	60	2000
050 x 32	50	17	32	11	65	1100	9,6	62	1700	8	60	2000
050 x 40	50	17	40	14	65	1100	12	62	1700	10	60	2000
050 x 50	50	17	50	18	65	1100	15	62	1700	13	60	2000
050 x 63	50	17	63	22	65	1100	19	62	1700	16	60	2000
050 x 80	50	17	80	28	65	1100	24	62	1700	20	60	2000
050 x 100	50	17	100	35	65	1100	30	62	1700	25	60	2000



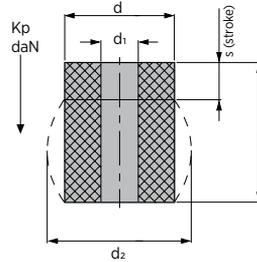
Order Example:
d= 80, l= 100, Hardness= 92 Sh

Order Code:
 S514-192-080100

Material:
 Polyurethane - Ultraflex

Hardness - Colour - Deflection

82 Shore A - Yellow	%35
92 Shore A - Red	%30
94 Shore A - Green	%25



dxl	d	d1	l	S514-182			S514-192			S514-194		
				s	d2	Kp	s	d2	Kp	s	d2	Kp
mm	mm	mm	mm	mm	mm	daN	mm	mm	daN	mm	mm	daN
063 x 32	63	17	32	11	81	1600	9,6	78	2600	8	74	3500
063 x 40	63	17	40	14	81	1600	12	78	2600	10	74	3500
063 x 50	63	17	50	18	81	1600	15	78	2600	13	74	3500
063 x 63	63	17	63	22	81	1600	19	78	2600	16	74	3500
063 x 80	63	17	80	28	81	1600	24	78	2600	20	74	3500
063 x 100	63	17	100	35	81	1600	30	78	2600	25	74	3500
063 x 125	63	17	125	44	81	1600	37,5	78	2600	31	74	3500
080 x 40	80	21	40	14	103	2600	12	98	4300	10	95	6000
080 x 50	80	21	50	18	103	2600	15	98	4300	13	95	6000
080 x 63	80	21	63	22	103	2600	19	98	4300	16	95	6000
080 x 80	80	21	80	28	103	2600	24	98	4300	20	95	6000
080 x 100	80	21	100	35	103	2600	30	98	4300	25	95	6000
080 x 125	80	21	125	44	103	2600	37,5	98	4300	31	95	6000
080 x 160	80	21	160	56	103	2600	48	98	4300	40	95	6000
0100 x 50	100	21	50	18	126	4300	15	120	5900	13	120	10000
0100 x 63	100	21	63	22	126	4300	19	120	5900	16	120	10000
0100 x 80	100	21	80	28	126	4300	24	120	5900	20	120	10000
0100 x 100	100	21	100	35	126	4300	30	120	5900	25	120	10000
0100 x 125	100	21	125	44	126	4300	37,5	120	5900	31	120	10000
0100 x 160	100	21	160	56	126	4300	48	120	5900	40	120	10000
0125 x 63	125	27	63	22	160	6400	19	152	9900	15,7	150	15000
0125 x 80	125	27	80	28	160	6400	24	152	9900	20	150	15000
0125 x 100	125	27	100	35	160	6400	30	152	9900	25	150	15000
0125 x 125	125	27	125	43,7	160	6400	37,5	152	9900	31,2	150	15000
0125 x 160	125	27	160	56	160	6400	48	152	9900	40	150	15000
0125 x 200	125	27	200	70	160	6400	60	152	9900	50	150	15000

CODE	Colour	Lt.
D901-01-745	Blue	250 ml.



Physical and Chemical Properties	
Physical State	Paste
Colour	Blue
Odour	Characteristic
Melting Point	45 °C
Flammability	> 150 °C
Explosiveness	not explosive
Density	0,85 g /ml
Solubity	In many solvents
Water Solubility (20°C)	Insoluble

Fiziksel ve Kimyasal Özellikler	
Fiziksel Durum	Paste
Renk	Mavi
Koku	Karakteristik
Erime Noktası	45 °C
Yanma Derecesi	> 150 °C
Patlayıcılık	Patlayıcı özelliği yoktur.
Yoğunluk	0,85 g /ml
Çözünürlük	Birçok çözücü de çözünür.
Suda Çözünme (20°C)	Suda çözünmez

Physikalische und chemische Eigenschaften	
Physischer Zustand	Paste
Farbe	Blau
Geruch	Karakteristik
Schmelzpunkt	45 °C
Endzündbarkeit	> 150 °C
Brisant	Keine
Dichte	0,85 g /ml
Lösbarkeit	Mit den meisten Lösungsmittel lösbar
Wasserlöslichkeit (20°C)	Keine



4 BMW

5 FCA

6 FORD

7 JLR

8 MERCEDES-BENZ

9 OPEL

10 PSA GROUP

11 RENAULT

12 VOLKSWAGEN-AUDI

BMW



B2 2101 15

Taşıma Milleri için Burçlar
Bush for Lifting Pins
Buchse für Tragbolzen



B2 2506 12

Kanca
Hook for Chute
Haken



B2 2305 16

Sertleştirilmiş Mekanik Dayamalar
Gage, Hardened
Einweiser, Gehärtet



B2 2604 12

Hava Pimi
Air Pin
Druckbolzen



B2 2305 17

Sertleştirilmiş Mekanik Dayamalar
Gage, Hardened
Einweiser, Gehärtet



B2 2615 002

Hava Pimi
Air Pin
Druckbolzen



B2 2305 22

Sertleştirilmiş Kontrol Parçalı Mekanik Dayamalar
Gage with Sensor, Hardened
Einweiser für Teillagekontrolle Gehärtet



B2 2625 11

Tutucu Plaka
Retainer
Sicherungsplatte



B2 2305 22

Sensörlü Mekanik Dayamalar
Gage for Sensor
Einweiser für Teillagekontrolle



B2 2625 11

Destek Plakası
Support Plate
Sicherungsplatte



B2 2305 24

Sertleştirilmiş Kontrol Parçalı Mekanik Dayamalar
Gage for Sensor, Hardened
Einweiser für Teillagekontrolle Gehärtet



B2 2705 11

Stoplama Bloğu
Stop Block
Abstandsblock



B2 2305 24

Sertleştirilmiş Kontrol Parçalı Mekanik Dayamalar
Gage with Panel Position Sensor, Hardened
Einweiser für Teillagekontrolle Gehärtet



B2 2705 11

Silindirik Stoplama Bloğu
Stop Block
Abstandsblock

BMW



B2 2708 11

Kalip Ayar Bloğu
Spacer
Distanzstück



B2 2904 9

Tutucu Plaka
Retainer
Sicherungsplatte



B2 2709 11

Altlik Plakası
Backing Plate
Distanzkappe



B2 2904 11

Tespit Cıvatası
Retaining Bolt
Sicherungsbolzen



B2 2715 11

Konik Merkezleme Ünitesi
Locating Cone
Kegeldistanz



B2 2920 001

Kılavuz Kolonu
Guide Post
Führungssäule



B2 2715 11

Ayar Plakası
Shim
Ausgleichscheib



B2 2920 001

Rondela
Washer
Federscheibe



B2 2715 14

Konik Merkezleme Ünitesi
Locating Cone
Kegeldistanz



B2 2920 003

Burç Tutucu
Toe Clamp
Haltestück



B2 2715 14

Ayar Plakası
Shim
Ausgleichscheib



B2 2933 1

Faturalı Grafitli Kılavuz Burçlar
Bush Self-lubricating
Führungsbuchsen mit Festschmierstoff
DIN 9834



B2 2717 12a / B2 2717 13a

Disli Ayar Plakaları
Spacer Plates, Toothed with Adjusting Plate
Distanzplatten Gezahnt



B2 2960 12

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleiplatten Bronze mit Festschmierstoff
VDI 3357

BMW



B2 2960 12

Çelik Kilavuz Plakalar
Wear Plates, Steel
Gleiplatten, Stahl

VDI 3357



B2 2978 23

Boşluk Ayar Plakası
Shim Plate for V Driver
Ausgleichscheibe



B2 2961 11

Grafitli Bronz Kilavuz Plakalar
Wear Plates, Self-lubricating
Gleiplatten Bronze mit Festschmierstoff

VDI 3357



B2 2981 011

Kızak Stoplama Bloğu
Slide Stop Block
Schieberranschlag



B2 2961 11

Çelik Kilavuz Plakalar
Wear Plates, Steel
Gleiplatten, Stahl

VDI 3357



B2 3001 021

Kızak Stoplama Bloğu
Slide Stop Block
Schieberranschlag



B2 2975 11

Bronz Grafitli Kilavuz Plakalar
Wear Strip with Two Slide Surfaces
Gleiplatten Bronze mit Festschmierstoff

VDI 3357



B2 3001 021

Darbe Önleyici
Anti-Shock
Dämpfungselement



B2 2978 20

Değiştirilebilir Plakalı V Blok Setleri
V Driver Sets with Replaceable Inserts with Positive
Return
Prismenführungssatz mit Auswechsellbaren
Gleitleisten und Zwangsrückholung

VDI 3357



B2 3001 021

Kızak Stoplama Bloğu
Slide Stop Block
Schieberranschlag



B2 2978 21

Bronz Grafitli V Bloklar
V Driver, Self-lubricating
Prismenführungen Bronze mit Festschmierstoff

VDI 3357



B2 3001 021

Darbe Önleyici
Anti-Shock
Dämpfungselement



B2 2978 21

V Bloklar, Çelik
V Driver, Steel
Prismenführung aus Stahl

VDI 3357



B2 3602 15

Boşluk Ayar Plakası
Shim
Ausgleichscheibe

BMW



B2 3602 15

İz Zimbasi
Visual Locator Setting Punch
Stempel f. Entgasungsnoppen



B2 5602 12

Taşıma Pimleri
Lifting Pins
Tragschrauben
VDI 3366



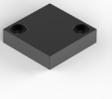
B2 3765 1

Kama
Key
Passfeder



B2 5605 11

Taşıma Braketleri
Lifting Brackets with Pins
Tragwange mit Tragbolzen



B2 4010 1

Altlık Plakası
Backing Plate
Distanzkappe



B2 5605 12

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



B2 4068 2

Merkezi Pimi
Locating Pin
Zentrierbolzen



B2 5702 12

Emniyet Pimleri
Pad Retainer Pins
Steckbolzen



B2 4069 1/2

Kama
Key
Passfeder



B2 6201 11

Rondela
Washer
Unterlegscheibe



B2 5601 11

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



B2 6201 12

Emniyet Setleri için Borular
Spacer Tubes
Distanzbuchse



B2 5602 11

Emniyet Plakalı Taşıma Braketleri
Lifting Brackets with Rope Stop Safety
Tragzapfen mit Seilsicherung



B2 6202 1

Elastomer Rondela
Buffer
Stossdämpfer

BMW**B2 6202 1**

Rondela
Washer
Unterlegscheibe

**B2 6202 1**

Rondela
Washer
Unterlegscheibe

**B2 6204 12**

Emniyet Pimleri için Amortisör Vulkolanlar
Shock Absorber for Pad Retainer Pins
Halteelement

FCA



010.90.05

Marka Zimbası
Stamp
Buchstabenstempel



010.90.65

Metrik Kamalar
Metric Master Keys
Metrische Passfeder



010.90.05

Altılık Plakası
Backing Plate
Druckplatte



010.90.85

Konik Merkezleme Üniteleri
Locating Cone
Kegeldistanz



010.90.10

Marka Zimbası
Stamp
Buchstabenstempel



025.90.05

Bilyalı Taşıyıcılar
Ball Carriers
Kugelrollensystem



010.90.50

Konumlandırma Zimbası
Visual Locator Punch
Endkontrollstempel



025.90.35

Makaralı Kılavuz Üniteler
Coil Guide Roller
Bandführung



010.90.55

Ayar Plakası
Adjustment Plate
Scheibe



025.90.40

Makaralı Kılavuz Üniteler
Coil Guide Roller
Bandführung



010.90.60

Kama
Key
Passfeder



025.90.45

Makaralı Sürücü Üniteler
Roller Group
Förderrolle



010.90.61

Kama
Key
Passfeder



025.90.55

Çelik Makaralar
Steel Roller
Stahlrolle

FCA



025.90.70

Kaldırıcı Stoplama Ünitesi
Lifter Stop
Anschlag Heber



030.90.20

Hava Pimleri
Air Pins
Unterluftbolzen



025.90.80

Elastomer Sıyırıcılar
Stripper for Blanking Dies
Abstreifer für Platinenschnitte



030.90.25

Çelik Burç
Bush, Steel
Buchse, Stahl



025.90.85

Makaralı Kollu Kaldırıcı
Roller Stock Lifter
Federnde Laufrolle



030.90.40

Mekanik Dayamalar
Gage
Einweiser



025.90.90

Yaylı Ünite Grubu
Spring Group
Federeinheit



030.90.41

Sertleştirilmiş Mekanik Dayamalar
Gage, Hardened
Einweiser Gehartet



030.90.05

Ayar Telafi Bloğu
Compensation Block
Abstandsblock



030.90.45

Sertleştirilmiş Kontrol Parçalı Mekanik Dayamalar
Gage for Sensor, Hardened
Einweiser für Teillagekontrolle Gehartet



030.90.10

Dişli Ayar Plakaları
Spacer Plates, Toothed with Adjusting Plate
Distanzplatten Gezahnt



030.90.165

Hava Tahliye Borusu
Air Relief Tubing
Tube



030.90.15

Ön Merkezleme Plakası
Pre-Centering Plate
Stempelvorschzentrierung



030.90.180

Zorunlu Dönüş Destek Plakaları
Positive Return Plates, Steel
Zwangsrückholer

FCA



040.90.05

Flanş Kaldırıcı
Flange Lifter
Kantenheber



040.90.10

Flanş Kaldırıcı
Flange Lifter
Kantenheber



045.90.90

Kama
Key
Passfeder



050.90.65

Kılavuz Plakalar için Ayar Plakaları
Distance Plates for Wear Plates
Höhenausgleich für Gleitplatten



050.90.70

Bronz Grafitli Kılavuz Plakalar
Wear Plates Self-lubricating
Gleitplatten Bronze mit Festschmierstoff

VDI 3357



050.90.75

Çelik Kılavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl

VDI 3357



050.90.80

Çelik Kılavuz Plakalar
Gib Plates Steel
Deckleisten ohne Festschmierstoff

VDI 3357



050.90.85

Çelik Grafitli Kılavuz Plakalar
Gib Plates Steel Self-lubricating
Deckleisten mit Festschmierstoff

VDI 3357



050.90.90

Çelik Sürtünme Plakaları
Wear Plates, Steel
Deckleisten, Stahl



050.90.95

Çelik Sürtünme Plakaları
Wear Plates, Steel
Deckleisten, Stahl



050.90.100

Değiştirilebilir Plakalı V Blok Setleri
V Driver Sets with Replaceable Inserts with Positive
Return
V Driver mit Auswechselbaren Gleitleisten und
Zwangsrückholung



050.90.100

Kendinden Yağlı Değiştirilebilir Sürtünme Plakaları
Replaceable Wear Plates Self-lubricating
Wechselbare Gleitplatten mit Festschmierstoff



050.90.101

Değiştirilebilir Plakalı V Blok Setleri
V Driver Sets with Replaceable Inserts with Positive
Return
V Driver mit Auswechselbaren Gleitleisten und
Zwangsrückholung



050.90.105

V Bloklar, Çelik
V Driver, Steel
Prismenführung, Stahl

VDI 3357

FCA



050.90.110

Bronz Grafitli V Blok
V Driver, Self-lubricating
Prismenführungen Bronze mit Festschmierstoff

VDI 3357



050.90.131

Ayar Plakası
Shim Plate
Beilagplatte



050.90.115

V Blok Üniteleri için Ayar Plakaları
Distance Plates for V Drivers
Höhenausgleich für Prismenführungen



050.90.135

Ayar Plakası
Adjustment Plate
Einstellplatte



050.90.120

Bronz Grafitli L Kilavuz Plakalar
L Shaped Wear Plates, Self-lubricating
Winkelleisten Bronze mit Festschmierstoff



050.90.140

Kam Sürtünme Plakası
Cam Dwell Wear Plate
Überlaufkeile



050.90.125

Kam Kilavuz Plakalar
Cam Dwell Wear Plates
Überlaufkeile

VDI 3357



050.90.145

Kam Kilavuz Plakası
Cam Dwell Wear Plate
Gleitplatte für Cam



050.90.125

Grafitli Bronz Kam Kilavuz Plakalar
Cam Dwell Wear Plates, Self-lubricating
Überlaufkeile mit Festschmierstoff

VDI 3357



050.90.150

Mandal
Fork Pawl
Befestigungsplatte



050.90.130

Kam Kilavuz Plakalar
Cam Dwell Wear Plates
Überlaufkeile

VDI 3357



050.90.177

Zorunlu Dönüş Destek Plakaları
Positive Return Plates, Steel
Zwangsrukholer



050.90.130

Grafitli Bronz Kam Kilavuz Plakalar
Cam Dwell Wear Plates, Self-lubricating
Überlaufkeile mit Festschmierstoff

VDI 3357



050.90.200

Stoplama Bloğu
Stop Block
Anschlag

FCA



050.90.205

Kızak Stoplama Bloğu
Slide Stop Block
Schieberanschlag



065.90.85

Faturalı Grafitli Kılavuz Burçlar
Guide Bushes with Collar, Self-lubricating
Führungsbuchsen mit Festschmierstoff

DIN 9834



065.90.05

Kılavuz Kolon Tutucu Seti
Guide Pin Pad Retainer Assembly
Zugbolzensatz



065.90.90

Burç Tutucu
Toe Clamp
Haltestück



065.90.30-35-40-45

Frenleyiciler
Retainer Bolts
Zugbolzensatz



065.90.95

Faturalı Grafitli Kılavuz Burçlar
Guide Bushes with Collar, Self-lubricating
Führungsbuchsen mit Festschmierstoff



065.90.65

Emniyet Pimleri için Amortisör Vulkanlar
Shock Absorber for Pad Retainer Pins
Halteelement



065.90.96

Faturalı Grafitli Kılavuz Burçlar
Guide Bushes with Collar, Self-lubricating
Führungsbuchsen mit Festschmierstoff



065.90.70

Kılavuz Kolonlar
Guide Posts
Führungssäulen

DIN 9833



065.90.100

Burç Tutucu
Toe Clamp
Haltestück



065.90.75

Kılavuz Kolonlar
Guide Posts
Führungssäulen



065.90.102

Burç Tutucu
Toe Clamp
Haltestück



065.90.80

Kılavuz Kolonlar
Guide Posts
Führungssäulen

DIN 9833



065.90.115

Kılavuz Kolonlar için Tutucu Plaka
Retainer Plate for Guide Pins
Halteplatte für Führungssäulen

FCA



065.90.120

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff

VDI 3357



075.90.45

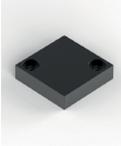
Yaylı İtici
Spring Plunger
Federnde Druckstücke



065.90.120

Çelik Kılavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl

VDI 3357



075.90.110

Baskı Plakası
Pressure Plate
Druckplatte



065.90.125

Kılavuz Plakalar için Ayar Plakaları
Distance Plate for Wear Plates
Höhenausgleich für Gleitplatten



075.90.115

Baskı Plakası
Pressure Plate
Druckplatte



065.90.130

Emniyet Pimleri
Pad Retainer Pins
Steckbolzen



075.90.120

Baskı Plakası
Pressure Plate
Druckplatte



065.90.190

Merkezleme Pimleri
Locating Pins
Zentrierbolzen



080.90.25

Kaldırıcı
Lifter
Kantenheber



065.90.195

Silindirik Stoplama Bloğu
Cylindrical Stop Block
Distanzstück



080.90.60

Sabitleme Kelepçeleri
Coupling Clamps
Befestigungselement



065.90.200

Tutucu Plaka
Retainer Plate
Halteplatte



080.90.65

Sabitleme Elemanı
Union Nut
Befestigungselemen

FCA



080.90.70

Sabitleme Elemanı
Union Nut
Befestigungselemen



095.90.20

Elastomer Yaylar
Elastomer Springs
Elastomerfedern



080.90.75

Bilyalı Yatak
Sleeve
Führungseinheit



095.90.25

Elastomer Yaylar için Sabitleme Pimleri
Pins for Elastomer Springs
Aufnahmebolzen



080.90.80

Kılavuz Mil
Guide Post
Führungssäule



095.90.30

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



080.90.90

Elastomer Tıpa
Elastomer Cap
Elastomerdruckstück



095.90.35

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



085.90.135

Kavrama Plakaları
Coupling Plates
Befestigungsplatten



095.90.40

Taşıma Milleri için Burçlar
Bush for Lifting Pins
Buchse für Tragbolzen



085.90.140

Bağlantı Kavrama Somunu
Coupling Nut
Kupplungsmutter



095.90.60

Taşıma Braketleri
Lifting Brackets with Pins
Tragwange mit Tragbolzen



095.90.10

Dişli Taşıma Mapası
Threaded Steel Insert
Gewindeeinsatz Aus Stahl



095.90.60

Taşıma Braketleri
Lifting Brackets with Pins
Tragwange mit Tragbolzen

FCA



095.90.75

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



STQ 40007

Konumlandırma Zımbası
Visual Locator
Endkontrollstempel



095.90.75

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



STQ 40010

Silindirik Merkezleme Bloğu
Locating Block
Zentrierung



STQ 40005

Klempler için Braket
Bracket for Clamps
Klammern für Clamps



STQ 40011

Stoplama Blokları
Stop Blocks
Anschlag



STQ 40005

Braket için Plakalar
Plates for Bracket
Haltestücke für Klammern



STQ 40013

Kama
Key
Passfeder



STQ 40005

Braket için Plakalar
Plates for Bracket
Haltestücke für Klammern



STQ 40005

Braket için Plakalar
Plates for Bracket
Haltestücke für Klammern



STQ 40005

Braket için Plakalar
Plates for Bracket
Haltestücke für Klammern

FORD



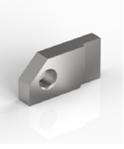
WDX3-60-0165

Elastomer Sıyırıcılar
Elastomer Stripper for Blanking Dies
Abstreifer für Platinenschnitte



WDX3-70-2002-A

Makaralı Kılavuz Ünite
Coil Guide Roller
Bandführung



WDX3-70 0101 ~ 0103

Tutucu Plaka
Stock Keeper Plate
Platte



WDX3-70-2101-A

Makaralı Kılavuz Ünite
Coil Guide Roller
Bandführung



WDX3-70-0201

Tutucu Civata
Shoulder Screw
Stift



WDX3-80 2401 ~ 2402

Konum İz Zimbasi
Visual Locator Setting Punch
Endkontrolstempel



WDX3-70-0402-A

Yükseltici
Stock Lifter
Heber



WDX4-70 0201-S ~ 0202-S

Hava Borusu
Air Relief Tubing
Tube



WDX3-70 0502 ~ 0504

Kılavuz Plaka
Guide Bar
Führung



WDX4-70-0601??

Tutucu Pim
Retainer Pin
Steckbolzen



WDX3-70 0505_ ~ 0506_

Kılavuz Plaka
Guide Bar
Führung



WDX4-70-0602

Tutucu Plaka
Clamp
Haltestück



WDX3-70-2001-A

Makaralı Kılavuz Ünite
Coil Guide Roller
Bandführung



WDX4-70 12070 ~ 12145

Üst Mesafe Ayar bloğu
Upper Distance Block
Oberer Abstandblock

FORD



WDX4-70-1301

Alt Mesafe Ayar Bloğu
Lower Distance Block
Underter Abstandblock



WDX5-60-3420

Mentese Pimi
Hinge Pin
Scharnierstift



WDX5-60-2201

Tutucu Plaka
Punch Retainer Plate
Haltestück



WDX5-60-3401-A

İkili Mentese Seti
Slide Bolt with Hinge
Bolzen mit Scharnier



WDX5-60-3301

İkili Mentese
Dual Hinge
Scharniernut



WDX5-60-3704

Köşebent
Hinged Bracket
Bügel



WDX5-60-3302

Mentese
Hinge
Scharnierfeder



WDX5-61-0901

Kama
Key
Haltestück



WDX5-60-3303

Mentese Pimi
Hinge Pin
Scharnierstift



WDX6-60 0401 ~ 0402

Flaş Çıkarıcı
Flange Stripper
Flanschbefestigung



WDX5-60-3301-A

İkili Mentese Seti
Slide Bolt with Hinge
Bolzen mit Scharnier



WDX7-60 1101 ~ 1102

Zorunlu Dönüş Plakası
Positive Return Wear Plate
Platte



WDX5-60-3401

Mentese
Hinge
Scharnierfeder



WDX7-60 1701 ~ 1704

Kavrama Plakaları
Coupling Plates
Befestigungsplatten

FORD



WDX7-60
1802 ~ 1807

Kavrama Somunu
Coupling Nut
Kupplungsmutter



WDX7-65
09100125Y ~ 09160170Y

Kendinden Yağlı Kam Kılavuz Sürtünme Plakası
Cam Dwell Wear Plate, Self-lubricating
Überlaufkeile, Bronze mit Festschmierstoff



WDX7-60-1901

Engelleme Pimi
Holdback Pin
Handgriff



WDX7-65
10050100Y ~ 10160315Y

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff



WDX7-65
01075200 ~ 01150450

Grafitli Çelik Sürtünme Plakası
Gib Plate Steel Self-lubricating
Deckleiste Stahl mit Festschmierstoff



WDX7-65
11175100 ~ 11175200

Kam Kızak Kapama Plakası
Cam Slide Cover Plate
Deckleiste für Scheiber



WDX7-65
03065150 ~ 03125300

V Blok Seti
V Driver Set
Prismenführung



WDX7-65-1201

Kamlar için Gazlı Yay Geri Dönüş Blokları
Return Blocks
Stop Blocks



WDX7-65
05111-A ~ 05243-A

V Blok Seti
V Driver Set
Prismenführung



WDX7-65-1202

Kamlar için Gazlı Yay Geri Dönüş Blokları
Return Blocks
Stop Blocks



WDX7-65-0445

Geri Dönüş Plakaları
Positive Return Clamp for V Drivers
Positive Rendite Klemme für V Bloks



WDX7-65-1203

Kamlar için Gazlı Yay Geri Dönüş Plakası
Return Plate
Stop Platte



WDX7-65
09100125X ~ 09160170X

Kam Kılavuz Sürtünme Plakası, Çelik
Cam Dwell Wear Plate, Steel
Überlaufkeile, Stahl



WDX7-70
03113-A ~ 03243-A

Değiştirilebilir Plakalı V Blok Setleri
V Driver Sets with Replaceable Inserts with
Positive Return
Prismenführungssatz mit Auswechsellbaren
Gleitleisten und Zwangsrückholung
VDI 3357

FORD



WDX7-70-1001-A

Emniyet Cıvatası
Upper Cam Safety Screw
Sicherheitschraube für Oberschieber



WDX13-60 08025-A ~ 08125-A

Faturalı Grafitli Kilavuz Burçlar ve Burç Tutucu
Guide Bushes with Collar, Self-lubricating with Toe
Clamp
Führungsbuchsen mit Festschmierstoff
NAAMS



WDX7-70-1536

Kızak Stoplama Bloğu
Slide Stop Block
Schieberanschlag



WDX13-60 08025 ~ 08125

Faturalı Grafitli Kilavuz Burçlar
Guide Bushes with Collar, Self-lubricating
Führungsbuchsen mit Festschmierstoff
NAAMS



WDX7-70 16080 ~ 16130

Stoplama Bloğu
Stop Block
Anschlag



WDX13-60-1001

Burç Tutucu
Toe Clamp
Haltestück



WDX7-70 18050 ~ 18100

Tampon
Cam Buffer
Anschlag



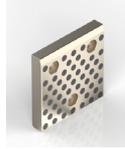
WDX13-65 01050100X ~ 01160315X

Çelik Kilavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl
VDI 3357



WDX7-70 19090 ~ 19140

Tampon Destek Bloğu
Cam Slide Buffer Support Block
Dämpferhalterung



WDX13-65 01050100Y ~ 01160315Y

Grafitli Bronz Kilavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten mit Festschmierstoff
VDI 3357



WDX7-80 0605- 0608

Grafitli Çelik L Kilavuz Plakalar
L Shaped Wear Plates, Steel
Führungslaschen Stahl mit Festschmierstoff



WDX13-65 04040 1 ~ 04152 1

Stoplama Bloğu
Stop Block
Abstandsblock



WDX7-80-211254

Kam Dönüş Ünitesi
Cushion&Stop, Cam Return
Schieberanschlag



WDX13-65 10080315-A ~ 10080400-A

Kilavuz Kolonlar ve Tutucular
Guide Posts with Toe Clamps
Führungssäulen mit Haltestück

FORD



WDX13-65
10080315 ~ 10080400

Kılavuz Kolon
Guide Post
Führungssäule



WDX13-65
22025140 ~ 22100500

Kılavuz Kolon
Guide Post
Führungssäule



WDX13-65
11080315 ~ 11080400

Kılavuz Kolon
Guide Post
Führungssäule



WDX14-60
0125 ~ 0163

Tutucu Plaka
Pad Retainer Plate
Platte



WDX13-65
12125400-A ~ 12125500-A

Kılavuz Kolonlar ile Tutucular
Guide Posts with Toe Clamps
Führungssäulen mit Haltestück



WDX14-60-025501-A

Emniyet Pimi
Pad Retainer Pin
Steckbolzen



WDX13-65
12125400 ~ 12125500

Kılavuz Kolon
Guide Post
Führungssäule



WDX14-60-025502-A

Emniyet Pimi
Pad Retainer Pin
Steckbolzen



WDX13-65
13125355 ~ 13125500

Kılavuz Kolon
Guide Post
Führungssäule



WDX14-60-0280

Emniyet Pimi
Safety Pin
Stift



WDX13-65
20025140-A ~ 20100500-A

Kılavuz Kolonlar ve Tutucular
Guide Posts with Toe Clamps
Führungssäulen mit Haltestück



WDX14-60
0325-A ~ 0363-A

Emniyet Pimi
Pad Retainer Pin
Steckbolzen



WDX13-65
20025140 ~ 200100500

Kılavuz Kolon
Guide Post
Führungssäule
NAAMS



WDX14-60
0425-A ~ 0463-A

Emniyet Pimi
Pad Retainer Pin
Steckbolzen

FORD



**WDX14-60
0516 ~ 0530**

Frenleyiciler
Retainer Bolts
Zugbolzensatz



**WDX14-60
1525-A ~ 1563-A**

Emniyet Pimi
Pad Retainer Pin
Steckbolzen



**WDX14-60
0612 ~ 0620**

Frenleyiciler
Retainer Bolts
Zugbolzensatz



**WDX14-60
1701 ~ 1703**

Amortisör Vulkolonlar
Shock Absorber
Halteelement



**WDX14-60
0901 ~ 0904**

Elastomer Rondela
Buffer
Stossdämpfer



WDX14-62-0175

Konik Merkezleme Ünitesi
Locating Cone
Kegeldistanz



**WDX14-60
1001 ~ 1004**

Rondela
Washer Retainer
Scheibe



**WDX14-65
1110 ~ 1116**

Frenleyiciler
Retainer Bolts
Zugbolzensatz



**WDX14-60
1005 ~ 1009**

Tutucu Plaka
Retainer Block
Dübel



**WDX14-65
0150180 ~ 0150280 / 0263200 ~ 0263280 /
0380250 ~ 0380400**

Tutucu Civata Seti
Retainer Bolt
Zugbolzensatz



**WDX14-60
1310 ~ 1320**

Rondela
Washer Retainer
Scheibe



**WDX14-65
04050180 ~ 04080400**

Kılavuz Kolon
Guide Post
Führungssäule



**WDX14-60
1425-A ~ 1463-A**

Emniyet Pimi
Pad Retainer Pin
Steckbolzen



**WDX14-65
05110 ~ 05150**

Rondela
Washer
Scheibe

FORD



WDX14-65
05050 ~ 05080

Distanzstück
Spacer
Distanziale



WDX15-70-0401

Merkezleme Pimi
Locating Pin
Zentrierbolzen



WDX14-65
06110 ~ 06150

Tutucu Civata Seti için Blok
Retainer Bolt Block
Aufnahmebolzen Block



WDX15-90
19200525 ~ 22201125

Bağlama Plakası
Bolting Plate
Verschraubung Platte



WDX14-65
07110 ~ 07150

Elastomer Darbe Önleyici
Buffer
Stoßdämpfer



WDX15-90-21435

Mesafe Bloğu
Spacer Block for Bolting Plate
Abstandblock



WDX14-65
0820350 ~ 0830585

Tutucu Civata
Retainer Bolt Assembly
Aufnahmebolzen Zusammenbau



WDX16-60
01065 ~ 01250

Sertleştirilmiş Mekanik Dayama
Gage, Hardened
Einweiser Gehärtet



WDX14-70
194032 ~ 1980125

Delikli Vulkolon Yaylar
Elastomer Springs, Hollow
Elastomerfedern



WDX16-60
0330075 ~ 0330200

İtici Mekanik Dayama
Blank Pusher Gage
Platinen Einweiser



WDX22-60
0450-0463-0480

Burç
Bush
Buschse



WDX16-70
0201 ~ 0224

Yan Dayama
Side Gage
Führung



WDX15-70-0201

Rondela
Washer
Scheibe



WDX16-70
0301R ~ 0301L

Sensörler için Destek Dayama
Support for Sensor
Lagekontrolle für Platinen

FORD



WDX16-70 0701R ~ 0701L

Sensörler için Destek Dayama
Support for Sensor
Lagekontrolle für Platinen



WDX16-70 0901R ~ 0901L

Sensörler için Destek Dayama
Support for Sensor
Lagekontrolle für Platinen



WDX16-80 3330075 ~ 3330200

İtici Mekanik Dayamalar
Blank Pusher Gages
Platinen Einweiser



WDX17-60 0236_ ~ 0245_

Hava Pimi
Air Pin
Druckbolzen



WDX17-60-0345

Hava Pimi
Air Pin
Druckbolzen



WDX17-70-0501

Tutucu Plaka
Toe Clamp
Haltestück



WDX19-70-0703

Braket
Bracket
Bügel



WDX20-65 0310 ~ 0325

Marka Zimbasi
Trademark Stamp
Buchstabenstempel



WDX20-65-0601

Konum İz Zimbasi
Visual Locator Punch
Endkontrolstempel



WDX20-66-03120-A

Zimba Tutucusu
Retainer for Stamp
Halteplatte



WDX20-66-03115

Zimba Tutucusu
Retainer for Stamp
Halteplatte



WDX20-66-03205

Destek Plakası
Backing Plate
Druckplatte



WDX20-66 04120-A ~ 04121-A

Zimba Tutucusu
Retainer for Stamp
Halteplatte



WDX20-66 04115 ~ 04119

Zimba Tutucusu
Retainer for Stamp
Halteplatte

FORD



WDX20-66
04205 ~ 04277
Destek Plakası
Backing Plate
Druckplatte



WDX35-70-1401
Hava Bağlantı Braketi
Air Coupling Bracket
Luftanschlussbock



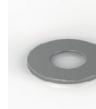
WDX20-66
0601 ~ 0610
Zimba
Stamp
Buchstabenstempel



WDX35-70-1502
Hava Bağlantı Braketi
Air Coupling Bracket
Luftanschlussbock



WDX22-60
0316 ~ 0348
Taşıma Mapaları
Threaded Steel Inserts
Gewindebuchsen zum Eingießen



WDX35-70
1611 ~ 1662
Renk Markası
Color Mark Connection
Farbige Scheibe



WDX22-70
0150 ~ 0180
Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



WDX22-70-0501
Taşıma Braketleri
Lifting Brackets
Tragzapfen



WDX22-80
0550 ~ 0580
Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



WDX30-60
0125125 ~ 0130180 / 02080 ~ 02125
Kama
Key
Passfeder

JLR



TDSA04-A

Konik Merkezleme Ünitesi
Locating Cone
Zentrierseinheiten mit Abstimmsscheiben



TDSA04-B

Konik Merkezleme Ünitesi
Locating Cone
Zentrierseinheiten mit Abstimmsscheiben



TDSA04-D

Havalandırma Borusu
Air Relief Tubing
Entlüftungsrohr



TDSA04-E

Ayar Plakası
Shim Plates
Abstimmsscheibe



TDSA04-F

Sıçrama Önleyiciler
Bounce Inhibitors
Prall-Inhibitoren



TDSA05-A

Hızlı Değişim Tutucu
Quick Change Retainer
Schnellwechselhalterung



TDSA05-B

Destek
Support
Unterstützung



TDSA05-C

Destek
Support
Unterstützung



TDSA05-D1

İkili Mentеше
Dual Hinge
Scharniernut



TDSA05-D2

Mentеше
Hinge
Scharnierfeder



TDSA05-D3

Mentеше Pimi
Hinge Pin
Scharnierstift



TDSA05-H1

Hurda Oluđu Durdurucu
Scrap Chute Stopper
Abfallrutschstopper



TDSA05-H2

Hurda Oluđu Durdurucu
Scrap Chute Stopper
Abfallrutschstopper



TDSA05-I

Üretan Zimba Sıyırıcı
Urethane Punch Stripper
Abstreifer

JLR



TDSA05-N

Kama
Key
Passfeder



TDSA07-C

Slayt Ayar Bloğu
Slide set up Blok
Distanzstück



TDSA06-A

Konik Merkezleme Üniteleri
Locating Cone
Zentrierenheiten mit Abstimmsscheiben



TDSA07-D

Tampon
Cam Buffer
Anschlag



TDSA06-B

Flanş Kaldırıcı
Flange Lifter
Kantenheber



TDSA07-E

Tampon Destek Bloğu
Cam Slide Buffer Support Block
Dämpferhalterung



TDSA06-C

Flanş Kaldırıcı
Flange Lifter
Kantenheber



TDSA07-F

Kavrama Plakaları
Coupling Plates
Befestigungsplatte



TDSA07-A

Zorunlu Dönüş Plakası
Positive Return Wear Plate
Platte



TDSA07-G

Kavrama Somunları
Coupling Nuts
Kupplungsmutter



TDSA07-B1

Gazlıyay Destek Yakası
Gas Springs Support Collar
Gasfedern-Stützkragen



TDSA07-H

V Blok Seti
V Driver Set
Prismenführung



TDSA07-B2

Gazlıyay Destek Yakası
Gas Springs Support Collar
Gasfedern-Stützkragen



TDSA07-I

V Blok Seti
V Driver Set
Prismenführung

JLR



TDSA07-J

Geri Dönüş Plakaları
Positive Return Clamp for V Drivers
Positive Rendite Klemme für V Bloks



TDSA12-F

Genişlik Ayar Profili
Spacing bar
Abstellbolzen



TDSA07-JX

V Blok Seti
V Driver Set
Prismenführung



TDSA13-A

Grafitli Bronz Kılavuz Plakalar
Wear Plates Self-lubricating
Gleitplatten Bronze mit Festschmierstoff



TDSA07-KX

V Blok Seti
V Driver Set
Prismenführung



TDSA13-A

Çelik Kılavuz Plakalar
Wear Plates Steel
Gleitplatten, Stahl



TDSA07-L

Kılavuz Kolonlar
Guide Posts
Führungssäulen



TDSA13-B

Kılavuz Kolonlar
Guide Posts
Führungssäulen



TDSA07-M

Grafitli Kılavuz Burçlar
Bush Self-lubricating
Führungsbuchsen mit Festschmierstoff



TDSA13-C

Kılavuz Kolonlar
Guide Posts
Führungssäulen



TDSA12-B

Genişlik Ayar Profili
Spacing bar
Abstellbolzen



TDSA13-C

Kılavuz Kolonlar ve Tutucular
Guide Posts with Toe Clamps
Führungssäulen mit Haltestück



TDSA12-B

Genişlik Ayar Profili
Spacing bar
Abstellbolzen



TDSA13-D

Kılavuz Kolon
Guide Post
Führungssäule

JLR



TDSA13-D

Kilavuz Kolonlar ve Tutucular
Guide Posts with Toe Clamps
Führungssäulen mit Haltestück



TDSA13-E

Kilavuz Kolon
Guide Post
Führungssäule



TDSA13-F

Kilavuz Kolon
Guide Post
Führungssäule



TDSA13-F

Kilavuz Kolonlar ile Tutucular
Guide Posts with Toe Clamps
Führungssäulen mit Haltestück



TDSA13-G

Kilavuz Kolon
Guide Post
Führungssäule



TDSA13-H

Dişli Ayar Plakaları
Spacer Plates, Toothed with Adjusting Plate
Distanzplatten Gezahnt



TDSA13-I

Stoplama Bloğu
Stop Block
Abstandsblock



TDSA13-J1

Stoplama Blokları
Stop Block
Distanzstück



TDSA13-J2

Ayar Plakaları
Shim
Abstimmsscheibe



TDSA13-K

Kolon ve Burç Tutucu
Toe Clamp
Haltestück



TDSA13-L

Faturalı Grafitli Kilavuz Burçlar
Bush Self-lubricating
Führungsbuchsen mit Festschmierstoff



TDSA13-L

Faturalı Grafitli Kilavuz Burçlar ve Burç Tutucu
Guide Bushes with Collar, Self-lubricating with Toe
Clamp
Führungsbuchsen mit Festschmierstoff
NAAMS



TDSA13-M

Tutucu Plaka
Retainer Plate
Halteplatte



TDSA14-A

Tutucu Plaka
Retainer Plate
Halteplatte

JLR



TDSA14-B

Emniyet Pimi
Pad Retainer Pin
Steckbolzen



TDSA14-G3

Elastomer Rondela
Elastomer Washer
Dämpfungsscheibe



TDSA14-C

Emniyet Pimi
Pad Retainer Pin
Steckbolzen



TDSA14-H

Frenleyiciler
Retainer Bolts
Zugbolzensatz



TDSA14-D

Emniyet Pimi
Pad Retainer Pin
Steckbolzen



TDSA14-I

Frenleyiciler
Retainer Bolts
Zugbolzensatz



TDSA14-E

Elastomer Rondela
Buffer
Stossdämpfer



TDSA14-J

Emniyet Civata ve Rondela Setleri
Retainer Bolt Sets
Zugbolzensatz



TDSA14-F

Tutucu Pim için Özel Plaka
Special Retainer Pin Plate
Spezial-Haltestiftplatte



TDSA14-K

Delikli Vulkolon Yaylar
Elastomer Springs, Hollow
Elastomerfeder



TDSA14-G1

Emniyet Civata ve Rondela Setleri, tek Damper
Retainer bolt single Damper
Halteelement mit einem Dämpfer



TDSA14-L

Emniyet Pimleri
Pad retainer pin
Steckbolzen



TDSA14-G2

Emniyet Civata ve Rondela Setleri, çift Damper
Retainer bolt double Damper
Halteelement mit zwei Dämpfer



TDSA14-M

Elastomer Tıpa
Elastomer Cap
Elastomerdruckstück

JLR



TDSA14-N

Tutucu Civata Seti
Retainer Bolt
Zugbolzensatz



TDSA16-D

Kaldırma Çubuğu
Round Blank Lifter Bar
Runder, blanker Hebebalken



TDSA15-A

Burç
Bush
Buschse



TDSA17-A

Hava Pimleri
Air pin
Duruckbolzen



TDSA15-B

Bağlama Plakası
Bolting Plate
Verschraubung Platte



TDSA17-A

Hava Pimleri
Air pin
Duruckbolzen



TDSA15-C

Merkezleme Pimi
Locating Pin
Zentrierbolzen



TDSA17-B

Hava Pimleri
Air Pins
Druckbolzen



TDSA15-D

Merkezleme Pimleri
Locating Pins
Zentrierbolzen



TDSA17-C

Hava Pimleri
Air Pins
Unterluftbolzen



TDSA16-A

Sertleştirilmiş Mekanik Dayamalar
Gage Hardened
Einweiser Gehärtet



TDSA17-D

Denge Pimi Durdurma Plakası
Balance Pin Stop Plate
Anschlagplatte für Ausgleichsstift



TDSA16-C

Panel Pilot Pimler
Panel Locator Pins
Positionierungsstifte



TDSA17-E

Tutucu Plaka
Balance Pin Retainer Plate
Ausgleichsstift-Halteplatte

JLR



TDSA17-F

Konumlandırma Plakası
Locating Plate
Positionierungsplatte



TDSA20-D

Marka Logo İz Zimbasi
Brand Logo Stamps
Markenlogo-Stempel



TDSA17-G

Tutucu Plaka
Toe Clamp
Haltestück



TDSA20-E

Zimbasi
Stamps
Stempel



TDSA17-H

Baskı plakası
Pressure plate
Druckplatte



TDSA20-G

Zimba Tutucusu
Retainer for Stamp
Halteplatte



TDSA17-H

Baskı plakası
Pressure plate
Druckplatte



TDSA20-G-A

Zimba Tutucusu
Retainer for Stamp
Halteplatte



TDSA20-B

Konum İz Zimbasi
Visual Locator Punch
Endkontrollstempel



TDSA20-G-B

Destek Plakası
Backing Plate
Druckplatte



TDSA20-D

Marka Logo İz Zimbasi
Brand Logo Stamps
Markenlogo-Stempel



TDSA20-H

Zimba
Stamp
Buchstabenstempel



TDSA20-D

Marka Logo İz Zimbasi
Brand Logo Stamps
Markenlogo-Stempel



TDSA21-A

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung

JLR



TDSA21-B

Burç
Bush
Buschse



TDSB13-D

Stoplama Blokları
Balance Blocks
Distanzstück



TDSA30-A

Kama
Key
Passfeder



TDSB13-E

Stoplama Blokları
Balance Blocks
Distanzstück



TDSA30-B

Kama
Key
Passfeder



TDSA35-A

Yaylı İtçiler
Spring Plungers
Federnde Druckstücke mit Sechskant



TDSA35-B

Hava Bağlantı Braketi
Air Coupling Bracket
Luftanschlussbock



TDSB03-A

Makaralı Sürücü Ünite
Coil Support Rollers
Spulenstützrollen



TDSB13-B

Grafitli Kilavuz Plakalar
Guide Bars
Führungslaschen mit Festschmierstoff

MERCEDES-BENZ



B8 0110 100 008 806

Rondela
Washer
Unterlegscheibe



B8 0301 231 108 801

Taşıma Milleri için Burçlar
Bush for Lifting Pins
Buchse für Tragbolzen



B8 0111 131 008 812

Kama
Key
Passfeder



B8 0441 123 408 802

Faturalı Grafitli Kılavuz Burçlar
Guide Bushes with Collar, Self-lubricating
Führungsbuchsen mit Festschmierstoff

DIN 9834



B8 0111 131 008 812

Kama
Key
Passfeder



B8 0450 200 009 001

Kılavuz Kolonlar
Guide Posts
Führungssäulen



B8 0111 131 008 814

Boşluk Ayar Plakası
Spacer
Abstimmplatte



B8 0450 200 009 001

Kılavuz Kolonlar
Guide Posts
Führungssäulen



B8 0111 431 008 801

Sensör için Braketler
Round Retainer for Proximity Sensor
Halteplatten Rund für Näherungsschalter



B8 0450 200 009 001

Kılavuz Kolonlar
Guide Posts
Führungssäulen



B8 0161 121 008 802

Burç Tutucu
Toe Clamp
Haltestück



B8 0450 200 009 001

Kılavuz Kolonlar
Guide Posts
Führungssäulen



B8 0162 410 008 801

Taşıma Milleri için Tutucu
Bracket for Lifting Pins
Bügel für Tragbolzen



B8 0460 219 008 801

Çelik Kılavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl

MERCEDES-BENZ



B8 0460 231 009 002

Grafitli Bronz Kilavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff



B8 0467 000 009 001

Kendinden Yağlı Kam Kilavuz Sürtünme Plakası
Cam Dwell Wear Plate, Self-lubricating
Überlaufkeile, Bronze mit Festschmierstoff



B8 0460 231 008 801

Grafitli Bronz Kilavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff



B8 0467 111 000 101

Konumlandırma Bloğu
Locating Block
Fangbacke



B8 0460 231 009 003

Grafitli Bronz Kilavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff



B8 0541 000 009 001

Mekanik Dayama
Gage
Einweiser



B8 0460 850 000 101

Stoplama Bloğu
Locating Block
Fangbacke



B8 0541 000 009 005

Mekanik Dayama
Gage
Einweiser



B8 0461 110 000 101

V Blok, Çelik
V Driver, Steel
Prismenführung, Stahl



B8 0541 000 009 005

Sertleştirilmiş Mekanik Dayama
Gage, Hardened
Einweiser Gehärtet



B8 0461 131 000 101

Kendinden Yağlı V Blok
V Driver, Self-lubricating
Prismenführung Bronze mit Festschmierstoff



B8 0541 000 009 007

Kontrol Parçalı Mekanik Dayama
Gage for Sensor
Einweiser für Teillagekontrolle



B8 0467 000 009 001

Kam Kilavuz Sürtünme Plakası, Çelik
Cam Dwell Wear Plate, Steel
Überlaufkeile, Stahl



B8 0541 000 009 008

Mekanik Dayama
Gage
Einweiser

MERCEDES-BENZ



B8 0550 100 008 801

Stoplama Bloğu
Spacer
Distanzscheibe



B8 0624 108 800 002

Konik Merkezleme Ünitesi
Locating Cone
Zentriereinheit



B8 0561 131 008 803

Baskı Plakası
Pressure Plate
Druckplatte



B8 1001 110 008 801

Civata
Spacer
Abstimmsschraube



B8 0561 131 008 804

Ayar Plakaları
Shim Plates
Abstimmsscheiben



B8 1013 110 008 802

Tespit Civatası
Retainer Bolt
Schulter Passschraube



B8 0602 104 008 803

Merkezleme Pimi
Locating Pin
Zentrierbolzen



B8 1087 100 000 001

Kolon Segmanları
Post Rings
Sprengring



B8 0602 321 008 801

Merkezleme Pimi
Locating Pin
Zentrierbolzen



B8 1240 300 009 001

Taşıma Braketleri
Lifting Brackets
Tragzapfen

VDI 3366



B8 0604 100 001 102

Elastomer Yaylar için Sabitleme Pimleri
Pin for Elastomer Springs
Aufnahmebolzen



B8 2002 231 009 001

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



B8 0604 100 008 802

Konik Merkezleme Ünitesi
Locating Cone
Zentriereinheit



B8 2002 310 008 801

Tespit Civatası
Retainer Bolt
Haltebolzen

MERCEDES-BENZ**B8 2002 521 008 801**Pim
Pin
Ankerbolzen**B8 2002 621 008 802**Emniyet Pimleri
Pad Retainer Pins
Steckbolzen**B8 2002 731 000 002**Hava Pimi
Air Pin
Druckbolzen**B8 7007 000 008 808**Makaralı Sürücü Üniteler
Coil Guide Rollers
Führungsrollen**B8 7007 000 008 809**Makaralı Sürücü Üniteler
Coil Guide Rollers
Führungsrollen**B8 7007 000 008 810**Makaralı Sürücü Üniteler
Coil Guide Rollers
Führungsrollen**B8 7466 100 009 001**Kam Sürücü
Cam Roller
Rollenbock

OPEL



F33010001 ~ 0049

Kılavuz Kolonlar
Guide Posts
Führungssäulen



F33010038 ~ 0058

Kılavuz Kolonlar
Guide Posts
Führungssäulen



F33010060 ~ 0076

Kılavuz Kolonlar
Guide Posts
Führungssäulen



F33020019 ~ 0026

Faturalı Grafitli Kılavuz Burçlar
Guide Bushes with Collar, Self-lubricating
Führungsbuchsen mit Festschmierstoff



F33020036 ~ 0037

Burç Tutucu
Toe Clamp
Haltestück



F33030001 ~ 0040

Zimba Tutucu
Matrix Retainer
Aufnahmeplatte



F33030041 ~ 0070

Ayar Plakası
Distance Plate
Druckplatte



F33040000 ~ 0138

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff
VDI 3357



F33040121 ~ F33050012

Çelik Kılavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl
VDI 3357



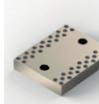
F33040024 ~ 0035

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff



F33040036 ~ 0044

Çelik Kılavuz Plakalar
Wear Plates, Steel with Self-lubricating
Gleitplatten Stahl mit Festschmierstoff



F33040085 ~ 0112

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff



F33040090 ~ 0093

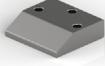
Grafitli Bronz V Blok
V Driver, Self-lubricating
Prismenführung Bronze mit Festschmierstoff
VDI 3357



F33040100 ~ 0111

Grafitli Bronz L Kılavuz Plakalar
L Shaped Wear Plates, Self-lubricating
Winkelleisten Bronze mit Festschmierstoff

OPEL



F33040139 ~ 0147

Kam Kılavuz Sürtünme Plakası, Çelik
Cam Dwell Wear Plates, Steel
Überlaufkeile, Stahl



F33050069 ~ 0072

V Bloklar, Çelik
V Driver, Steel
Prismenführung aus Stahl
VDI 3357



F33040148 ~ 0156

Grafitli Bronz Kam Kılavuz Plakalar
Cam Dwell Wear Plates, Self-lubricating
Überlaufkeile Bronze mit Festschmierstoff



F33050081 ~ 0083

Bronz Kendinden Yağlı V Blok
V Driver , Self-lubricating
Prismenführung Bronze mit Festschmierstoff
VDI 3357



F33040165 ~ 0183

Çelik Kılavuz Plakalar
Wear Plates, Steel with Self-lubricating
Gleitplatten Stahl mit Festschmierstoff



F33050084 ~ 0086

V Bloklar, Çelik
V Driver, Steel
Prismenführung aus Stahl
VDI 3357



F33040287 ~ 0289

Çelik Kam Kılavuz Plakalar
Cam Driver Plates , Steel
Zwangsrückholer



F33050087

V Bloklar, Çelik
V Driver, Steel
Prismenführung aus Stahl



F33040288 ~ 0290

Bronz Kam Kılavuz Plakalar
Cam Dwell Self-lubricating
Zwangsrückholer



F33050088

Bronz Kendinden Yağlı V Blok
V Driver , Self-lubricating
Prismenführung Bronze mit Festschmierstoff



F33040305 ~ 0320

Bronz Grafitli Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff
VDI 3357



F33050089 ~ 0107

Çelik Kılavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl



F33050018 ~ 0026

Çelik Kılavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl



F33150011 ~ 0015

Emniyet Pimleri
Pad Retainer Pins
Steckbolzen

OPEL



F33150037 ~ 0044

Hava Pimi
Aerial Pin
Luftbolzen



F33160157 ~ 0188

Bosluk Ayar Plakaları
Shim Plates
Ausgleichblechen



F33150045 ~ 0048

Hava Pimi
Air Pin
Druckbolzen



F33160218

Tutucu Plakalar
Fastening Plates
Halteplatten



F33150060 ~ 0061

Merkezleme Pimleri
Locating Pins
Zentrierbolzen



F33160230 ~ 0250

Zimba Altlık Plakaları
Shim Punch Retainer
Druckplatten



F33150087 ~ 0091

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



F33160226 ~ 0344

Baskı Plakası
Block
Distanzkappe



F33160002

Baskı Plakası
Pressure Plate
Druckplatten für Gasdruckfedern



F33160345 ~ 0371

Baskı Plakası
Block
Distanzkappe



F33160106 ~ 0107

Rondela
Washer
Scheibe



F33180007 ~ 0012

Rondela
Washer
Scheibe



F33160108 ~ 0204

Altlık Plakaları
Distance Plates
Abstimmsscheiben



F33180020 ~ 0021

Altlık Plakaları
Distance Plates
Abstimmsscheiben

OPEL



F33190003 ~ 0038

Konik Merkezleme Üniteleri
Locating Cone
Kegeldistanz



F33260026 ~ 0043

Kılavuz Profil
Guide
Aufnahmeschiene



F33190005 ~ 0026

Boşluk Ayar Bloğu
Spacer
Distanzstück



F33260029

Disk
Disk
Einzelteile



F33190031 ~ 0034

Stoplama Bloğu
Bottoming Block
Abstandblock



F33260030

Rondela
Washer
Scheibe



F33190035 ~ 0036

Boşluk Ayar Bloğu
Spacer
Distanzstück



F33260203 ~ 0205

Kontrol Parçalı Mekanik Dayamalar
Front Gages
Einweiser für Teillagekontrolle Gehartet



F33200009 ~ 0033

Kama
Key
Passfeder



F33260223 ~ 0342

Kızak Stoplama Bloğu
Slide Stop Block
Schieberanschlag



F33260004 ~ 0397

Mekanik Dayama
Gage
Einweiser



F33280001

Kablo Toplama Aparatı
Coiler for Electrical Wires
Kabelaufwickler



F33260014 ~ 0024

Kam Hizlandırıcı
Acceleration Cam
Schiebervorbeschleunigung



F33290041

Zımba Destek Plakası
Counter Pressure Plate
Gegendruckplatte

OPEL



F33290043 ~ 0164

Zimba
Stamp
Buchstabenstempel



F33910002 ~ 0003

Hava Bağlantı Braketi
Air Coupling Bracket
Luftanschlussbock



F33290063

Zimba
Stamp
Buchstabenstempel



F33910043

Zimba Tutucu
Retainer for Stamps
Halteplatte



F33290068

Konum İz Zimbası
Visual Locator Punch
Endkontrollstempel



F33910044

Zimba Tutucu
Retainer for Stamps
Halteplatte



F33310014 ~ 0022

Gazlı Yay Montajı için Flanşlar
Clamping Flange for Gas Springs
Klemmfansch für Gasdruckfedern



F33910110 ~ 0115

Taşıma Milleri için Burçlar
Bush for Lifting Pins
Stahlbuchsen für Trasportwangen



F33310023 ~ 0024

Elastomer Yay Tutucu
Urethane Spring Retainer
Elastomerhalterung



J06910069 ~ 0070

Sensör Montaj Braketi
Sensor Mounting Bracket
Sensorhalterungen



F33310029 ~ 0036

Gazlı Yay Montajı için Flanşlar
Clamping Flange for Gas Springs
Klemmfansch für Gasdruckfedern



M16045182 ~ 184

Amortisör Vulkolonlar
Shock Absorber
Halteelement



F33910001

Hava Bağlantı Braketi
Air Coupling Bracket
Luftanschlussbock



M36600070 ~ 0073

Rondela
Washer
Unterlegscheibe

PSA GROUP



E24.51.930.G

Dengeleme Bloğu
Balance Block
Distanzstück



E24.52.105.G

Burç Tutucu
Toe Clamp
Haltestück



E24.51.930.G

Stoplama Bloğu
Stop Block
Abstandsblock



E24.52.105.G

Faturalı Grafitli Kılavuz Burçlar
Guide Bushes with Collar, Self-lubricating
Führungsbuchsen mit Festschmierstoff



E24.52.105.G

Kılavuz Kolonlar
Guide Posts
Führungssäulen



E24.52.105.G

Burç Tutucu
Toe Clamp
Haltestück



E24.52.105.G

Kolon Tutucu Flanşlar
Flange for Median Retaining Column
Haltestück für Führungssäulen
AFNOR



E24.52.305.G

Burç Tutucu
Toe Clamp
Haltestück



E24.52.105.G

Kolon Tutucu Flanşlar
Flange for Median Retaining Bushes
Haltestück für Führungssäulen
AFNOR



E24.52.504.G

Yağlama Kanallı Çelik Kılavuz Plakalar
Wear Plates with Oil Groove
Gleitplatten, Stahl mit Ölschmierhut
AFNOR



E24.52.105.G

Faturalı Kılavuz Burçlar
Guide Bushes with Collar, Self-lubricating
Führungsbuchsen mit Bund



E24.52.504.G

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff
AFNOR



E24.52.105.G

Kılavuz Kolonlar
Guide Posts
Führungssäulen



E24.52.504.G

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff
VDI 3357

PSA GROUP



E24.52.504.G

Çelik Kılavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl

VDI 3357



E24.52.512.G

Yağlama Kanallı Çelik Kılavuz Plakalar
Wear Plates with Oil Groove
Gleitplatten, Stahl mit Ölschmiernut



E24.52.504.G

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff

VDI 3357



E24.52.512.G

Çelik Kılavuz V Plakalar
V Driver, Steel
Prismenführung aus Stahl



E24.52.504.G

Çelik Kılavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl

VDI 3357



E24.52.512.G

Yağlama Kanallı Çelik Kılavuz Plakalar
Angular Slide Plates, Steel and Oil Groove
Prismenführung, Stahl mit Ölschmiernut



E24.52.512.G

Yağlama Kanallı Çelik Kılavuz Plakalar
Wear Plates with Oil Groove
Gleitplatten, Stahl mit Ölschmiernut



E24.52.512.G

Yağlama Kanallı Çelik Kılavuz Plakalar
Angular Slide Plates, Steel and Oil Groove
Prismenführung, Stahl mit Ölschmiernut



E24.52.512.G

Yağlama Kanallı Çelik Kılavuz Plakalar
Wear Plates with Oil Groove
Gleitplatten, Stahl mit Ölschmiernut



E24.52.512.G

Çelik Kılavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl



E24.52.512.G

Yağlama Kanallı Çelik Kılavuz Plakalar
Wear Plates with Oil Groove
Gleitplatten, Stahl mit Ölschmiernut



E24.52.535.G

Bronz Grafitli V Blokklar
V Driver, Self-lubricating
Prismenführungen Bronze mit Festschmierstoff



E24.52.512.G

Yağlama Kanallı Çelik Kılavuz Plakalar
Wear Plates with Oil Groove
Gleitplatten, Stahl mit Ölschmiernut



E24.52.535.G

V Blokklar, Çelik
V Driver, Steel
Prismenführung aus Stahl

PSA GROUP



E24.52.535.G

Celik Kılavuz Plakalar
Angular Slide Plates, Steel
Prismenführung aus Stahl



E24.54.445.G

Elastomer Yaylar
Elastomer Springs
Elastomerfeder



E24.52.535.G

Grafitli Bronz Kılavuz Plakalar
Angular Slide Plates, Self-lubricating
Prismenführung, Bronze mit Festschmierstoff



E24.54.445.G

Elastomer Sıyırıcılar
Elastomer Stripper for Blanking Dies
Abstreifer für Platinenschnitte



E24.52.535.G

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff



E24.55.265.G

Emniyet Pimleri için Amortisör Vulkolonlar
Shock Absorber for Pad Retainer Pins
Halteelemente



E24.53.920.G

Zimba Sıyırıcılar
Punch Stripper
Präzisions Scraper



E24.55.265.G

Emniyet Pimleri
Pad Retainer Pins
Steckbolzen



E24.54.410.G

Poliüretan Yaylar
Elastomer Springs
Elastomerfeder



E24.55.410.G

Stoplama Civataları
Spring Spacer Units
Retainer Bolts



E24.54.410.G

Elastomer Yaylar için Sabitleme Pimleri
Pin for Elastomer Springs
Aufnahmebolzen



E24.56.200.G

Sertleştirilmiş Mekanik Dayama
Gage Hardened
Einweiser Gehärtet



E24.54.420.G

Elastomer Tıpa
Elastomer Cap
Elastomerdruckstück



E24.56.200.G

Sensörlü Mekanik Dayama
Gage for Sensor
Einweiser für Teillagekontrolle

PSA GROUP



E24.56.630.G

Kama
Key
Passfedern



E24.64.100.G

Zimba Tutucu
Stamp Retainer
Halteplatte



E24.56.630.G

Kama
Key
Passfedern



E24.64.100.G

Zimba Destek Plakası
Backing Plate
Druckplatte



E24.56.700.G

Konik Merkezleme Üniteleri
Locating Cone
Kegeldistanz



E24.64.100.G

Zimba
Stamp
Buchstabenstempel



E24.57.370.G

Bilyalı Yatak
Sleeve
Führungseinheit



E24.64.100.G

Zimba
Stamp
Buchstabenstempel



E24.57.370.G

Sabitleme Kelepçeleri
Coupling Clamps
Befestigungselement



E24.64.105.G

Konum İz Zımbası
Visual Locator Punch
Endkontrolstempel



E24.57.370.G

Kılavuz Pim
Guide Post
Führungssäule



E24.65.000.G

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



E24.57.370.G

Braket
Bracket
Halterung

RENAULT



EM24.50.400/G

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



EM24.52.100/J

Burç Tutucu
Toe Clamp
Haltestück

AFNOR



EM24.50.400/G

Taşıma Braketleri
Lifting Brackets with Pins
Tragwange mit Tragbolzen nach



EM24.52.100/J

Burç Tutucu
Toe Clamp
Haltestück



EM24.52.100/J

Kılavuz Kolon
Guide Post
Führungssäule



EM24.52.100/J

Konik Merkezleme Üniteleri
Locating Cone
Kegeldistanz



EM24.52.100/J

Kolon Segmanları
Guide Post Retainer Ring
Haltering für Führungssäule

AFNOR



EM24.52.300/C

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff

AFNOR



EM24.52.100/J

Kolon Tutucu Flanşlar
Flange for Median Retaining Column
Haltestück für Führungssäule



EM24.52.300/C

Çelik Kanallı Kılavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten, Stahl mit Ölschmiergut

AFNOR



EM24.52.100/J

Faturalı Grafitli Kılavuz Burçlar
Guide Bushes with Collar, Self-lubricating
Führungsbuchsen mit Festschmierstoff



EM24.52.500/B

Grafitli Bronz L Kılavuz Plakalar
L Shaped Wear Plates, Self-lubricating
Winkelleisten Bronze mit Festschmierstoff



EM24.52.100/J

Faturalı Grafitli Kılavuz Burçlar
Guide Bushes with Collar, Oil Groove
Führungsbuchsen mit Bund, Ölschmiergut



EM24.52.500/B

Kızaklama Plakası
Slider
Führungseile

RENAULT



EM24.55.100/G

Emniyet Pimleri
Pad Retainer Pins
Steckbolzen



EM24.59.500/K

Zimba
Stamp
Buchstabenstempel



EM24.55.100/G

Emniyet Pimleri
Pad Retainer Pins
Steckbolzen



EM24.55.100/G

Emniyet Pimleri için Amortisör Vulkolonlar
Shock Absorber for Pad Retainer Pins
Halteelemente



EM24.59.500/K

Konum İz Zımbası
Visual Locator Setting Punch
Endkontrollstempel



EM24.59.500/K

Zimba Tutucu
Stamp Retainer
Halteplatte



EM24.59.500/K

Zimba Destek Plakası
Backing Plate
Druckplatte



EM24.59.500/K

Zimba
Stamp
Buchstabenstempel

VOLKSWAGEN-AUDI



39D 506

Kovan
Sleeve
Führungseinheit



39D 578

Montajlı Profil Gövde
Pipe with Assembly
Klapprohrkörper mit Baugruppe



39D 543

Plaka
Brace
Verlaschung



39D 578

Profil 5x50x70-L480
Laser Cutting Part
Rohrlaserteil



39D 571

Saplama
Tie Rod
Führungsbolzen



39D 578

Profil 3x50x70-L480
Laser Cutting Part
Rohrlaserteil



39D 578

Destek Plakası
Backing Plate
Distanzkappe



39D 578

Genişlik Ayar Profili Set 5 mm
Pipe Box Set 5 mm
DIY-Klapprohr-Box 5 mm



39D 578

Destek Plakası
Backing Plate
Distanzkappe



39D 578

Genişlik Ayar Profili Set 3 mm
Pipe Box Set 3 mm
DIY-Klapprohr-Box 3 mm



39D 578

Boşluk Ayarı için Profil
Spacing Bar
Abstellbolzen



39D 582

Grafitli Bronz L Kılavuz Plakalar
L Shaped Wear Plates, Self-lubricating
Winkelleisten Bronze mit Festschmierstoff



39D 578

Montajlı Profil Gövde
Pipe with Assembly
Klapprohrkörper mit Baugruppe



39D 592

Ayırma Bloğu
Spacer
Abstandsblock

VOLKSWAGEN-AUDI



39D 599

Saplama
Tie Rod
Druck und Zuganker



39D 599

Saplama
Tie Rod
Druck und Zuganker



39D 599

Saplama
Tie Rod
Druck und Zuganker



39D 630

Kam Stoper
Slider Stop Damping System
Dämpfungssystem Schieberanschlag



39D 630

Kızak Stoplama Bloğu
Slide Stop Block
Schieberanschlag



39D 630

Kızak Stoplama Bloğu
Slide Stop Block
Schieberanschlag



39D 638

Hava Pimleri
Air Pins
Druckbolzen



39D 639

Kontrol Parçalı Dayama
Position Control for Blanks
Lagekontrolle für Platinen



39D 639

Sertleştirilmiş Kontrol Parçalı Mekanik Dayamalar
Gage with Panel Position Sensor, Hardened
Einweiser für Teillagekontrolle Gehartet



39D 649

Ayar Plakası
Shim
Spannschlit



39D 650

Frenleyiciler
Retainer Bolts
Haltebolzen



39D 651

Amortisör Vulkolon
Elastomer Spring
Federblock



39D 807

Mekanik Dayamalar
Gage
Einweiser



39D 807

Sertleştirilmiş Mekanik Dayamalar
Gage Hardened
Feinweiser

VOLKSWAGEN-AUDI



39D 807

Sertleştirilmiş Mekanik Dayamalar
Gage Hardened
Einweiser Gehartet



39D 828

Emniyet Cıvata ve Rondela Setleri
Retainer Bolt Sets
Halteelemente mit Dämpfung



39D 807

Sertleştirilmiş Mekanik Dayamalar
Gage Hardened
Einweiser Gehartet



39D 839

Taşıma Braketleri
Lifting Brackets with Pins
Tragwange mit Tragbolzen nach



39D 826

Kama
Key
Passfeder



39D 847

Baskı Plakası
Pressure Plate
Druckplatten für Gasdruckfedern



39D 826

Kama
Key
Passfeder



39D 847

Baskı Plakası
Pressure Plate
Druckplatten für Gasdruckfedern



39D 828

Emniyet Cıvata ve Rondela Setleri
Retainer Bolt Sets
Halteelemente



39D 851

Kızaklama Pimi
Sliding Pin
Führungssäule



39D 828

Rondela
Washer
Scheibe



39D 851

Kızaklama Pimi
Sliding Pin
Führungssäule



39D 828

Elastomer Rondela
Elastomer Washer
Dämpfungsscheibe



39D 854

Emniyet Pimleri
Pad Retainer Pins
Steckbolzen

VOLKSWAGEN-AUDI



39D 854

Emniyet Pimleri
Pad Retainer Pins
Steckbolzen



39D 863

Celik Kilavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl

VDI 3357



39D 856

Tutucu Plaka
Retainer Plate
Sicherungsplatte



39D 863

Sinterli Kilavuz Plakalar
Sintered Steel Wear Plate Type
Gleitplatten Stahl mit SintergleitflächeTip

VDI 3357



39D 860

Faturalı Grafitli Kilavuz Burçlar
Guide Bushes with Collar, Self-lubricating
Führungsbuchsen mit Festschmierstoff

DIN 9834



39D 866

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



39D 861

Burç Tutucu
Clamps for Bushing
Haltestück



39D 866

Taşıma Milleri
Lifting Pins
Tragbolzen mit Fallringsicherung



39D 862

Kilavuz Kolonlar
Guide Posts
Führungssäulen

DIN 9833



39D 869

Rondela
Washer
Scheibe



39D 862

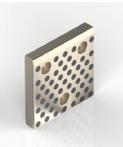
Kilavuz Kolonlar
Guide Posts
Führungssäulen

DIN 9833



39D 870

Hava Bağlantı Braketi
Air Cylinder Fixing
Verschraubung



39D 863

Grafitli Bronz Kilavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff

VDI 3357



39D 876

Taşıma Braketleri
Lifting Brackets
Tragzapfen

VDI 3366

VOLKSWAGEN-AUDI



39D 882

Hava Silindir Tutucu
Air Cylinder Fixing
Ziehteilheber



39D 882

Hava Silindir Tutucu
Air Cylinder Fixing
Ziehteilheber



39D 887

Hava Birleştirme Braketi
Air Cylinder Adapter
Teilheber



39D 887

Hava Birleştirme Braketi
Air Cylinder Adapter
Teilheber



39D 890

Grafitli Bronz Kılavuz Plakalar
Wear Plates, Self-lubricating
Deckleisten Bronze mit Festschmierstoff



39D 890

Kılavuz Plakalar
Wear Plates
Deckleisten Schieberführung



39D 890

Sinterli Kılavuz Plakalar
Sintered Steel Wear Plates
Gleitplatten Stahl mit Sintergleitfläche



39D 892

Grafitli Bronz Kılavuz Plakalar
Wear Strip with Two Slide Surfaces
Gleiplatten mit Festschmierstoff

VDI 3357



39D 894

Kendinden Yağlı Kam Kılavuz Sürtünme Plakası
Cam Dwell Wear Plate, Self-lubricating
Überlaufkeile, Bronze mit Festschmierstoff

VDI 3357



39D 894

Kam Kılavuz Sürtünme Plakası, Çelik
Cam Dwell Wear Plate, Steel
Überlaufkeile, Stahl

VDI 3357



39D 896

Dengeleme Pim Grubu
Compensation Pin Group
Ausgleichsdruckbolzen



39D 896

Dengeleme Pim Grubu
Compensation Pin Group
Ausgleichsdruckbolzen



39D 896

Dengeleme Pim Grubu
Compensation Pin Group
Ausgleichsdruckbolzen



39D 896

Dengeleme Pim Grubu
Compensation Pin Group
Ausgleichsdruckbolzen

VOLKSWAGEN-AUDI



39D 896

Baskı Plakası
Pressure Plate
Druckplatte



39D 952

Bronz Grafitli V Bloklar
V Driver, Self-lubricating
Prismenführungen Bronze mit Festschmierstoff
VDI 3357



39D 896

Tutucu Plaka
Retainer
Sicherungsplatte



39D 954

Grafitli Bronz Kilavuz Plakalar
Wear Plates, Self-lubricating
Gleitplatten Bronze mit Festschmierstoff
VDI 3357



39D 896

Tutucu Plaka
Retainer
Sicherungsplatte



39D 954

Çelik Kilavuz Plakalar
Wear Plates, Steel
Gleitplatten, Stahl
VDI 3357



39D 896

Tutucu Plaka
Retainer
Sicherungsplatte



39D 954

Sinterli Kilavuz Plakalar
Sintered Steel Wear Plates Type
Gleitplatten Stahl mit Sintergleitfläche Tip
VDI 3357



39D 951

Hava Pimi
Air Pin
Unterluftbolzen



39D 956

Faturalı Grafitli Kilavuz Burçlar
Guide Bushes with Collar, Self-lubricating
Führungsbuchsen mit Festschmierstoff



39D 951

Hava Pimleri
Air Pins
Unterluftbolzen



39D 969

Kilavuz Kolonlar
Guide Posts
Führungssäulen
DIN 9833



39D 952

V Blok, Çelik
V Driver, Steel
Prismenführung, Stahl
VDI 3357



39D 972

Gazlı Yay ve Kovan Seti
Lifter
Federbolzen

VOLKSWAGEN-AUDI



39D 976

Dişli Ayar Plakaları
Spacer Plates, Toothed with Adjusting Plate
Distanzplatte Gezahnt



39D 996

Değiştirilebilir Plakalı V Blok Setleri
V Driver Sets with Replaceable Inserts with
Positive Return
Prismenführungssatz mit Auswechselbaren
Gleitleisten und Zwangsrückholung
VDI 3357



39D 993

Sensör Plakası
Plate for Sensor
Halterung



39D 1392

Dağıtıcı Blok
Distributor
Verteilerblocke



39D 995

Çelik Burç
Spacer
Distanzstück



39D 1430

Dağıtıcı Blok
Distributor
Verteilerblocke



39D 995

Rondela
Washer
Scheibe



39D 1497

Dağıtıcı Blok
Distributor
Verteilerblocke



39D 995

Stoplama Plakası
Stop Block
Halteplatte



39V 863

Konum İz Zimbası
Visual Locator Setting Punch
Presswerkzeuge



39D 995

Stoplama Plakası
Stop Block
Halteplatte



39V 1071

Dişli Burç
Threaded Bush
Genwindebuchse



39D 995

Tutucu Civata Seti
Retainer Bolt Set
Ziehteilheber



39V 1159

Grafitli Çelik Kılavuz Plakalar
Removable Die Heels, Steel and Self-lubricating
Führungsglaschen, Stahl mit Festschmierstoff
VDI 3387

VOLKSWAGEN-AUDI



39V 1162

Stoplama Bloğu
Stop Block
Abstandsblock



39V 1304

Kama
Key
Passfeder



39V 1162

Stoplama Bloğu
Stop Block
Abstandsblock



39V 1304

Kama
Key
Passfeder



39V 1168

Konik Merkezleme Ünitesi
Locating Cone
Kegeldistanz



39V 1569

Makaralı Kollu Kaldırıcılar
Roller Stock Lifter
Federnde Laufrolle



39V 1178

Elastomer Sıyrıcılar
Elastomer Stripper for Blanking Dies
Abstreifer für Platinenschnitte



39V 1199

Taşıma Pimleri
Lifting Pins
Tragschraube

VDI 3366



39V 1205

Merkezleme Pimleri
Locating Pins
Zentrierbolzen



39V 1254

Konumlandırma Bloğu
Locating Block
Fangbacke

GSB OILLESS İmalat San. ve Tic. Ltd. Şti.

📍 **Merkez / Headquarter** : Aydınlı Mah.
İAYOSB, Mermerciler Caddesi No:55
34953 - Tuzla / İSTANBUL / TURKEY

☎ +90 216 442 10 89
☎ +90 216 457 14 95
✉ info@gsb-oilless.com

📍 **Şube / Branch** : Üçevler Mah. Küçük
Sanayi Sitesi 17 B Blok No:15
16100 - Nilüfer / BURSA / TURKEY

☎ +90 224 443 48 15
☎ +90 224 443 48 14
✉ info@gsb-oilless.com

📍 **Şube / Subsidiary** : Room204.D Building
NO70 Bole Road.Jiading District
201899 - Shanghai / CHINA

☎ +86 21 5283 8038/39
☎ +86 138 183 39 309
✉ sales_china@gsb-oilless.com

📍 **Şube / Subsidiary** : MICRONORM Woronka
GmbH Heerstraße 129a
D-58553 - Halver / GERMANY

☎ +49 (0) 2353 / 9166 - 0
☎ +49 (0) 2353 / 9166 - 21
✉ info@micronorm.de

🌐 www.gsb-oilless.com

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