

kale



If we start spinning today, we would get tomorrow's knots. That's how we thought while building Kale. We already had our 20th anniversary in 2016 behind us.

Our story that began by producing hose clamps for diverse, light and heavy duty manufacturing industries brought us today to the status of a global business associate generating engineering solutions in the field of connection technologies to the automotive industry.

Kale as a family-owned company combines its fast decision-making competence with the innovative solutions developed by its commercial and technical teams for customer loyalty and satisfaction. Under all the long-term relationships we create with our customers lie a sustainable foundation and a significant cost-benefit correlation focusing on conservation of natural resources.

Being a pioneering innovator, the only conservative feature at Kale is the fastidious concern for details.





Behind every Kale connector lie the intellectual accumulation for over 20 years, meticulous engineering, technological and economic production systems.

Thus Kale provides its customers;

- · innovative,
- · competitive,
- · quality,
- · light,
- · reliable, and
- environmental friendly products and values.





For Kale,

the term "quality" means "perfect" instead of "satisfactory". This philosophy covers a broad range including Kale's vendors, raw materials, teams, production technologies, quality system, laboratory, environmental conscience and social responsibility projects.

This philosophy is certified with ISO TS 16949, ISO 9001, ISO 14001 management systems as per the expectations of the global automotive industry.





Kale manufactures the majority of its moulds and production lines inhouse.

These facilities are key to Kale's innovativeness and competitiveness.





With over 20 years of Intellectual Engineering Knowhow, Kale produces over 75% of its products with automation.



Most of the automation lines are designed and commissioned by Kale engineers.



The philosophy of Kale for the products produced with automated systems:

"The 1st part shall be identical with the 1000th part".

Kale ensures this with the control systems integrated into the automation lines.





"Top grade raw materials for top grade products"
Kale uses top grade steel to ensure and maintain
the stability and reliability of the products.

Moreover, all steels are dimensionally *"calibrated"* before they are fed into the production lines.





Kale meets customer orders on-time with its ERP infrastructure and associated Logistics & Warehouse management system.

From its warehouse containing 10.000 seperate items; Kale delivers globally from Mexico to China, shipping to 60 different countries all around the world.





Our solutions **kale** 17

Cooling Systems

Approximately 33% of the heat generated due to combustion in the motors is balanced with cooling system. A high level of sealing is needed in the cooling systems, for the motor components to function robustly without any deformation.

Kale products provide top grade assurance with their sealing properties, homogenous clamping force and ergonomics.



Kale products ensuring superior sealing and easy assembly with their unique design, allow to avoid leakages which may occur in the engine air intake systems and to maintain a high vehicle performance.

Due to the dynamic nature of the air temperatures of the turbocharge systems in the new generation engine technologies, Kale engineering team developed integrated spring systems that balances the changes in the dynamic loads and and the hose diameters.







Fuel Systems

Kale ensures sealing in fuel systems by means of stable products manufactured with lean production principles.





Cable and Pipe Systems

Fastening of installations that carry harnesses and fluids is vital for the robust performance of the systems and for servicing purposes.

Kale provides different solutions customized to the needs of the users thanks to its broad range of products.





Emission Systems

Kale products enable an eco-friendly drive as they provide high sealing property even at elevated temperatures of the emission systems, preventing harmful gas emissions.





Steering Systems

Fasteners are intensively used in steering systems and any potential fluid leakage jeopardizes safe driving.

Kale provides creative solutions against such issues with its broad product range, enabling safe driving for all drivers.





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AD max.

(Nm)

2,5

2,5

2,5

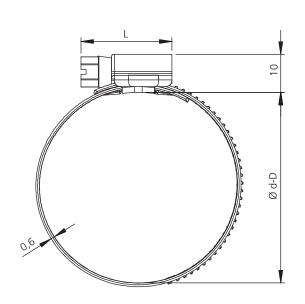
L (mm)

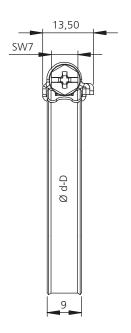
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20

20

WD9 - Technical Properties





Ø d - D (mm)

(min - max) 8-12

> 8-16 10-16

> 12-20



						12-22	24	3,0
						16-25	24	3,0
						16-27	24	3,0
						20-32	24	3,0
						23-35	24	3,0
						25-40	24	3,0
						30-45	24	3,0
						32-50	24	3,0
						40-60	24	3,0
						50-70	24	2.0
						50-70	24	3,0
	W1	W2	W3	W4	W5	60-80	24	3,0
	W1	W2 **	W3	W4 1.4567	W5 1.4578			
Screw						60-80	24	3,0
	** Mild steel **	** Mild steel 1.4016	1.4016 DIN EN-10088-3 or equivalent 1.4016	1.4567 DIN EN-10088-3 or equivalent 1.4301	1.4578 DIN EN-10088-3 or equivalent 1.4401	60-80 70-90	24	3,0
Screw	** Mild steel ** Mild steel	** Mild steel 1.4016 DIN EN-10088-2 or equivalent	1.4016 DIN EN-10088-3 or equivalent 1.4016 DIN EN-10088-2 or equivalent	1.4567 DIN EN-10088-3 or equivalent 1.4301 DIN EN-10088-2 or equivalent	1.4578 DIN EN-10088-3 or equivalent 1.4401 DIN EN-10088-2 or equivalent	60-80 70-90 80-100	24 24 24	3,0 3,0 3,0
	** Mild steel **	** Mild steel 1.4016 DIN EN-10088-2 or equivalent 1.4016 DIN EN-10088-2	1.4016 DIN EN-10088-3 or equivalent 1.4016 DIN EN-10088-2 or equivalent 1.4016 DIN EN-10088-2	1.4567 DIN EN-10088-3 or equivalent 1.4301 DIN EN-10088-2 or equivalent 1.4301 DIN EN-10088-2	1.4578 DIN EN-10088-3 or equivalent 1.4401 DIN EN-10088-2 or equivalent 1.4401 DIN EN-10088-2	60-80 70-90 80-100 90-110	24 24 24 24	3,0 3,0 3,0 3,0
Housing	** Mild steel ** Mild steel ***	** Mild steel 1.4016 DIN EN-10088-2 or equivalent 1.4016	1.4016 DIN EN-10088-3 or equivalent 1.4016 DIN EN-10088-2 or equivalent 1.4016	1.4567 DIN EN-10088-3 or equivalent 1.4301 DIN EN-10088-2 or equivalent 1.4301	1.4578 DIN EN-10088-3 or equivalent 1.4401 DIN EN-10088-2 or equivalent 1.4401	60-80 70-90 80-100 90-110 100-120	24 24 24 24 24 24	3,0 3,0 3,0 3,0 3,0
Housing Band Corrosion Resistance	** Mild steel ** Mild steel ***	** Mild steel 1.4016 DIN EN-10088-2 or equivalent 1.4016 DIN EN-10088-2	1.4016 DIN EN-10088-3 or equivalent 1.4016 DIN EN-10088-2 or equivalent 1.4016 DIN EN-10088-2	1.4567 DIN EN-10088-3 or equivalent 1.4301 DIN EN-10088-2 or equivalent 1.4301 DIN EN-10088-2	1.4578 DIN EN-10088-3 or equivalent 1.4401 DIN EN-10088-2 or equivalent 1.4401 DIN EN-10088-2	60-80 70-90 80-100 90-110 100-120 110-130	24 24 24 24 24 24	3,0 3,0 3,0 3,0 3,0 3,0
Housing Band Corrosion	** Mild steel ** Mild steel *** Mild steel	** Mild steel 1.4016 DIN EN-10088-2 or equivalent 1.4016 DIN EN-10088-2 or equivalent	1.4016 DIN EN-10088-3 or equivalent 1.4016 DIN EN-10088-2 or equivalent 1.4016 DIN EN-10088-2 or equivalent	1.4567 DIN EN-10088-3 or equivalent 1.4301 DIN EN-10088-2 or equivalent 1.4301 DIN EN-10088-2 or equivalent	1.4578 DIN EN-10088-3 or equivalent 1.4401 DIN EN-10088-2 or equivalent 1.4401 DIN EN-10088-2 or equivalent	60-80 70-90 80-100 90-110 100-120 110-130 120-140	24 24 24 24 24 24 24 24	3,0 3,0 3,0 3,0 3,0 3,0 3,0

 ^{* : %10} red rust allowed on the total surface of W3 products, after salt spray test.
 ** : Zinc-Plated
 *** : Zinc-Aliminium Plated

AD: Recommended tightening torque Recommended tightening speed 300 - 350 rpm



WD9 IS - Worm Drive Clamps with Spring Insert

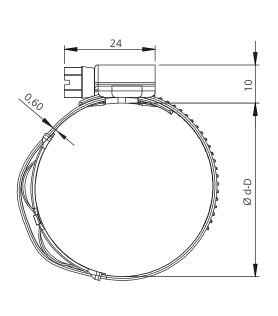


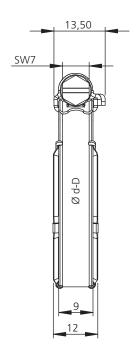






WD9 IS - Technical Properties







	W3	W4	W5
Screw	1.4016	1.4567	1.4578
	DIN EN-10088-3	DIN EN-10088-3	DIN EN-10088-3
	or equivalent	or equivalent	or equivalent
Housing	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Band	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Spring	1.4310	1.4310	1.4310
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Corrosion Resistance (min.Hour) ISO 9227	200*	240	400
Screw Head			

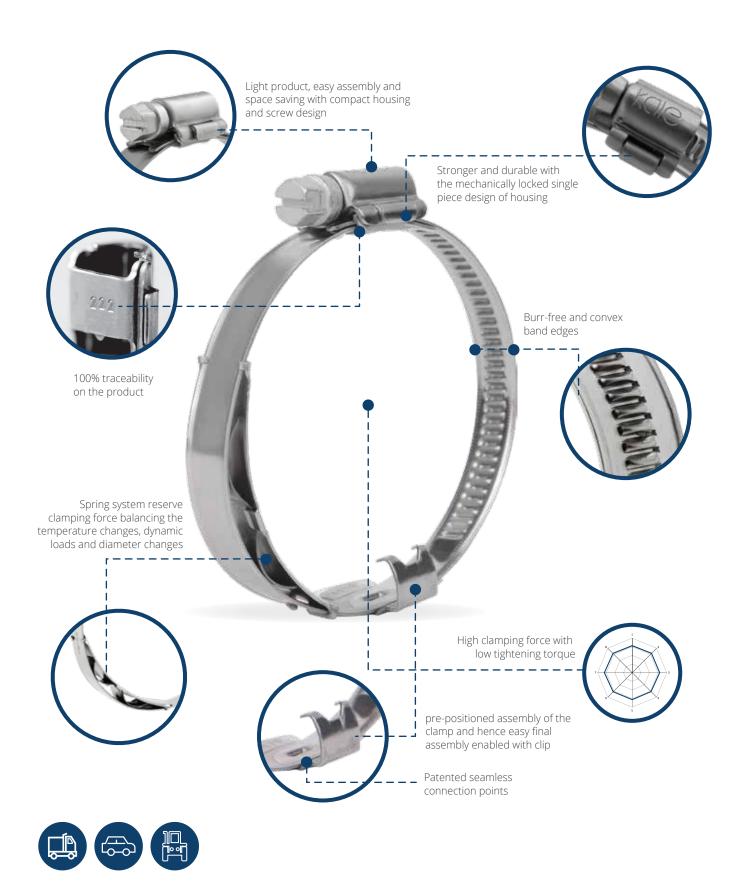
^{*: %10} red rust allowed on the total surface of W3 products, after salt spray test

Ø d - D (mm) (min - max)	AD max. (Nm)
35-55	3,0
40-60	3,0
45-65	3,0
50-70	3,0
55-75	3,0
60-80	3,0
65-85	3,0
70-90	3,0
75-95	3,0
80-100	3,0
90-110	3,0
100-120	3,0
110-130	3,0
120-140	3,0
130-150	3,0
140-160	3,0

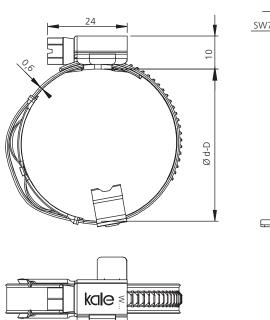
AD: Recommended tightening torque Recommended tightening speed 300 - 350 rpm

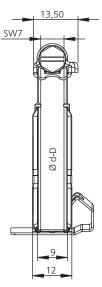


WD9 IS PP - Worm Drive Clamps with Spring Insert with Prepositioning Clip



WD9 IS PP - Technical Properties





	W3		W5
Screw	1.4016	1.4567	1.4578
	DIN EN-10088-3	DIN EN-10088-3	DIN EN-10088-3
	or equivalent	or equivalent	or equivalent
Housing	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Band	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Spring	1.4310	1.4310	1.4310
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Clip	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Corrosion Resistance (min.Hour) ISO 9227	200*	240	400
Screw Head			

*: %10 red rust allowe	d on the total surface of W3 products,
after salt spray test	

Ø d - D (mm)	AD max.
(min - max)	(Nm)
35-55	3,0
40-60	3,0
45-65	3,0
50-70	3,0
55-75	3,0
60-80	3,0
65-85	3,0
70-90	3,0
75-95	3,0
80-100	3,0
90-110	3,0
100-120	3,0
110-130	3,0
120-140	3,0
130-150	3,0
140-160	3,0

AD: Recommended tightening torque Recommended tightening speed 300 - 350 rpm









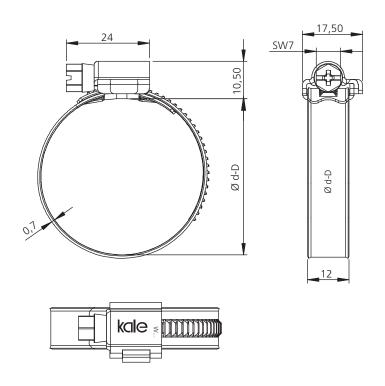








WD12 - Technical Properties



	W1	W2	W3	W4	W5
Screv	** Mild Steel	** Mild Steel	1.4016 DIN EN-10088-3 or equivalent	1.4567 DIN EN-10088-3 or equivalent	1.4578 DIN EN-10088-3 or equivalent
Housing	** Mild Steel	1.4016 DIN EN-10088-2 or equivalent	1.4016 DIN EN-10088-2 or equivalent	1.4301 DIN EN-10088-2 or equivalent	1.4401 DIN EN-10088-2 or equivalent
Band	*** Mild Steel	1.4016 DIN EN-10088-2 or equivalent	1.4016 DIN EN-10088-2 or equivalent	1.4301 DIN EN-10088-2 or equivalent	1.4401 DIN EN-10088-2 or equivalent
Corrosion Resistance (min.Hour) ISO 9227	72	72	200*	240	400
Screw Head					

 ^{* : %10} red rust allowed on the total surface of W3 products, after salt spray test
 ** : Zinc Plated
 *** : Zinc - Aluminium Plated

Ø d - D (mm) (min - max)	AD max.
16-25	5,0
16-27	5,0
20-32	5,0
23-35	5,0
25-40	5,0
30-45	5,0
32-50	5,0
40-60	5,0
50-70	5,0
60-80	5,0
70-90	5,0
75-95	5,0
80-100	5,0
90-110	5,0
100-120	5,0
110-130	5,0
120-140	5,0
130-150	5,0
140-160	5,0
380-400	5,0

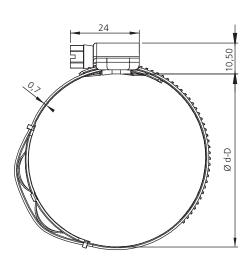
AD: Recommended tightening torque Recommended tightening speed 300 - 350 rpm

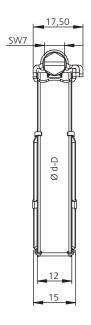


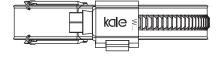
WD12 IS - Worm Drive Clamps with Spring Insert



WD12 IS - Technical Properties







	W3		W5
Screw	1.4016	1.4567	1.4578
	DIN EN-10088-3	DIN EN-10088-3	DIN EN-10088-3
	or equivalent	or equivalent	or equivalent
Housing	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Band	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Spring	1.4310	1.4310	1.4310
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Corrosion Resistance (min.Hour) ISO 9227	200*	240	400
Screw Head			

^{*: %10} red rust allowed on the total surface of W3 products, after salt spray test

Ø d - D (mm)	AD max.
(min - max)	(Nm)
16-25	5,0
16-27	5,0
20-32	5,0
23-35	5,0
25-40	5,0
30-45	5,0
35-55	5,0
40-60	5,0
45-65	5,0
50-70	5,0
55-75	5,0
60-80	5,0
65-85	5,0

AD: Recommended tightening torque Recommended tightening speed 300 - 350 rpm



WD12 IS PP - Worm Drive Clamps with Spring Insert with Prepositioning Clip

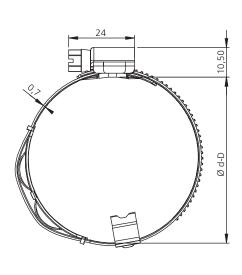


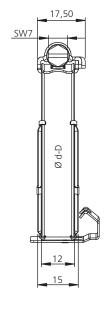


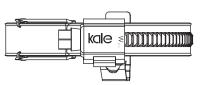




WD12 IS PP - Technical Properties







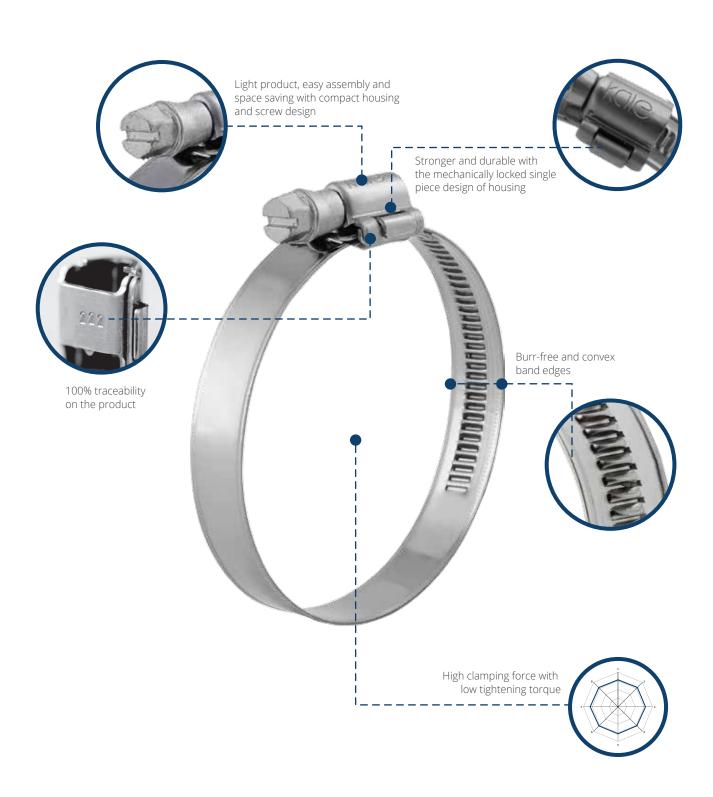
	W3	W4	W5
Screw	1.4016	1.4567	1.4578
	DIN EN-10088-3	DIN EN-10088-3	DIN EN-10088-3
	or equivalent	or equivalent	or equivalent
Housing	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Band	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Spring	1.4310	1.4310	1.4310
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Clip	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Corrosion Resistance (min.Hour) ISO 9227	Corrosion Resistance 200*		400
Screw Head			

^{*: %10} red rust allowed on the total surface of W3 products, after salt spray test

Ø d - D (mm)	AD max.
(min - max)	(Nm)
30-45	5,0
32-50	5,0
35-55	5,0
40-60	5,0
45-65	5,0
50-70	5,0
55-75	5,0
60-80	5,0
65-85	5,0

AD: Recommended tightening torque Recommended tightening speed 300 - 350 rpm



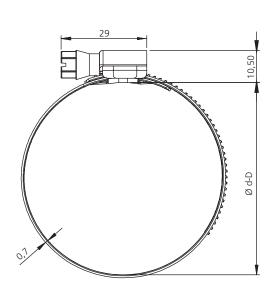


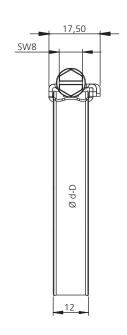






WD12 C8 - Technical Properties







	W3	W4	W5
Screw	1.4016 DIN EN-10088-3 or equivalent	1.4567 DIN EN-10088-3 or equivalent	1.4578 DIN EN-10088-3 or equivalent
Housing	1.4016 DIN EN-10088-2 or equivalent	1.4301 DIN EN-10088-2 or equivalent	1.4401 DIN EN-10088-2 or equivalent
Band	1.4016 DIN EN-10088-2 or equivalent	1.4301 DIN EN-10088-2 or equivalent	1.4401 DIN EN-10088-2 or equivalent
Corrosion Resistance (min.Hour) ISO 9227	200*	240	400
Screw Head			

*: %10 red rust allowed on the total surface of W3 products, after salt spray test

Ø d - D (mm) (min - max)	AD max.
16-25	5,0
16-27	5,0
20-32	5,0
23-35	5,0
25-40	5,0
30-45	5,0
32-50	5,0
40-60	5,0
50-70	5,0
60-80	5,0
70-90	5,0
80-100	5,0
90-110	5,0
100-120	5,0
110-130	5,0
120-140	5,0
130-150	5,0
140-160	5,0
380-400	5,0

AD: Recommended tightening torque Recommended tightening speed 300 - 350 rpm



WD12 C8 IS - Worm Drive Clamps with Spring Insert

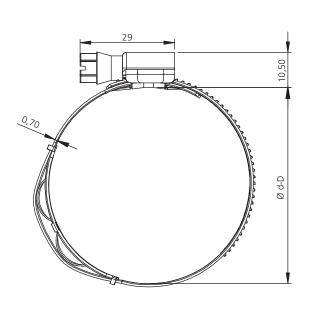


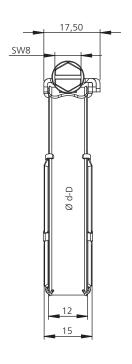






WD12 C8 IS - Technical Properties







	W3	W4	W5
Screw	1.4016	1.4567	1.4578
	DIN EN-10088-3	DIN EN-10088-3	DIN EN-10088-3
	or equivalent	or equivalent	or equivalent
Housing	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Band	1.4016	1.4301	1.4401
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Spring	1.4310	1.4310	1.4310
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2
	or equivalent	or equivalent	or equivalent
Corrosion Resistance (min.Hour) ISO 9227	200*	240	400
Screw Head			

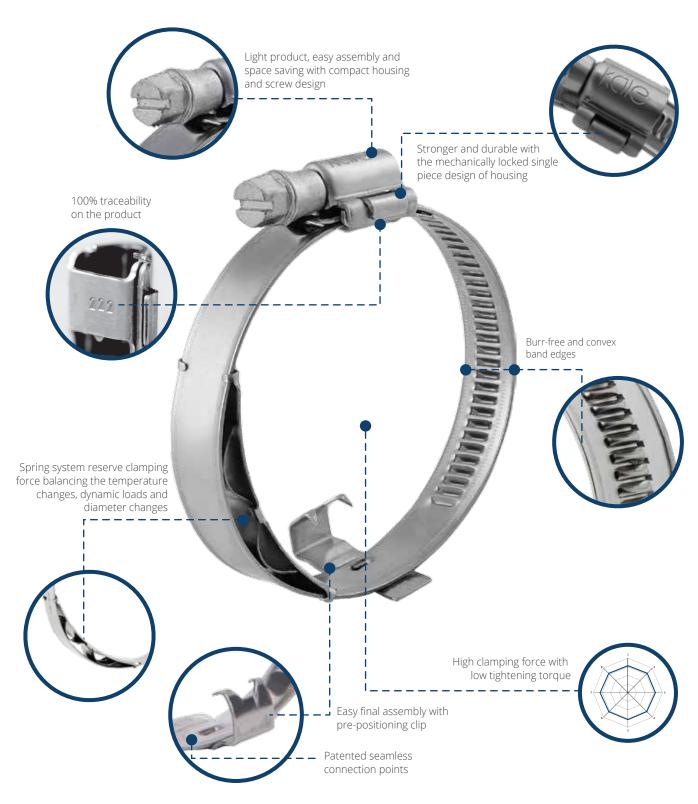
^{*: %10} red rust allowed on the total surface of W3 products, after salt spray test

Ø d - D (mm) (min - max)	AD max. (Nm)
16-25	5,0
16-27	5,0
20-32	5,0
23-35	5,0
25-40	5,0
30-45	5,0
35-55	5,0
40-60	5,0
45-65	5,0
50-70	5,0
55-75	5,0
60-80	5,0
65-85	5,0

AD: Recommended tightening torque Recommended tightening speed 300 - 350 rpm



WD12 C8 IS PP - Worm Drive Clamps with Spring Insert with Prepositioning Clip

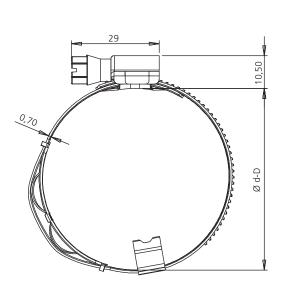








WD12 C8 IS PP - Technical properties



kale



	W3	W4	W5	
Screw	1.4016	1.4567	1.4578	
	DIN EN-10088-3	DIN EN-10088-3	DIN EN-10088-3	
	or equivalent	or equivalent	or equivalent	
Housing	1.4016	1.4301	1.4401	
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2	
	or equivalent	or equivalent	or equivalent	
Band	1.4016	1.4301	1.4401	
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2	
	or equivalent	or equivalent	or equivalent	
Spring	1.4310	1.4310	1.4310	
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2	
	or equivalent	or equivalent	or equivalent	
Clip	1.4016	1.4301	1.4401	
	DIN EN-10088-2	DIN EN-10088-2	DIN EN-10088-2	
	or equivalent	or equivalent	or equivalent	
Corrosion Resistance (min.Hour) ISO 9227	200*	240	400	
Screw Head				

*	:	%10	red	rust	allowed	on	the	total	surface	of	W3	products,	
		after	salt	spra	y test								

Ø d - D (mm) (min - max)	AD max. (Nm)
30-45	5,0
35-55	5,0
32-50	5,0
40-60	5,0
45-65	5,0
50-70	5,0
55-75	5,0
60-80	5,0
65-85	5,0

AD: Recommended tightening torque Recommended tightening speed 300 - 350 rpm



ST - SpringTension Heavy Duty Clamps





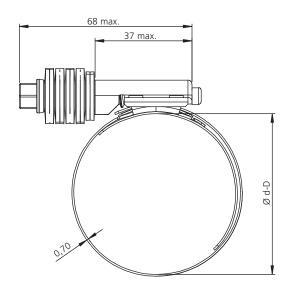


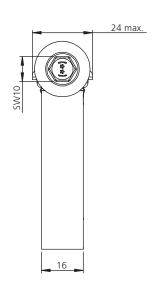






ST - Technical Properties





	W2
Screw	carbon steel *
Housing	1.4301 DIN EN-10088-2 or equivalent
Band	1.4301 DIN EN-10088-2 or equivalent
Belleville Springs	1.4310 DIN EN-10088-2 or equivalent
Saddle	1.4301 DIN EN-10088-2 or equivalent

* : Zinc coated

Ø d - D (mm)	AD max.
(min - max)	(Nm)
25-45	8,5
32-54	8,5
45-67	8,5
57-79	8,5
70-92	8,5
83-105	8,5
95-117	8,5
108-130	8,5
121-143	8,5
133-155	8,5
146-168	8,5
159-181	8,5
172-193	8,5
184-206	8,5
197-219	8,5
210-232	8,5

AD: Recommended tightening torque









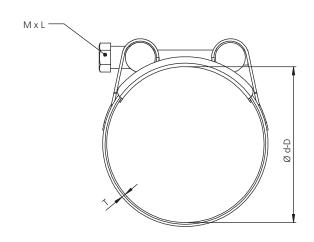


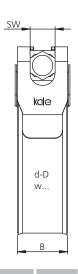






HD - Technical Properties



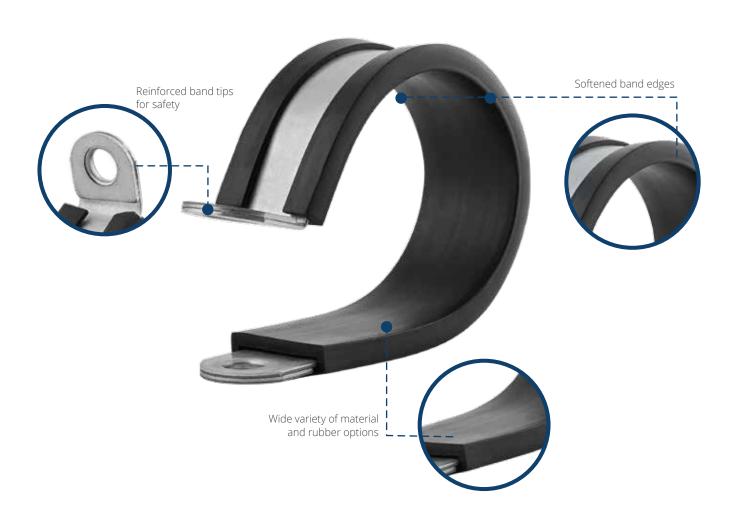


Ø d - D (mm) (min - max)	D (mm)	M x L (mm)	B (mm)	T (mm) W2-W4	SW (mm)	AD (Nm)
17-19	19	M5 x 35	18	0,6	0,6	8	8
20-22	22	M5 x 35	18	0,6	0,6	8	8
23-25	25	M5 x 35	18	0,6	0,6	8	8
26-28	28	M5 x 35	18	0,6	0,6	8	8
29-31	31	M5 x 35	18	0,6	0,6	8	8
32-35	35	M6 x 50	20	1,0	1,0	10	10
36-39	39	M6 x 50	20	1,0	1,0	10	10
40-43	43	M6 x 50	20	1,0	1,0	10	10
44-47	47	M6 x 50	20	1,0	1,0	10	10
48-51	51	M6 x 50	20	1,0	1,0	10	10
52-55	55	M6 x 50	20	1,0	1,0	10	10
56-59	59	M6 x 55	20	1,0	1,0	10	10
60-63	63	M6 x 55	20	1,0	1,0	10	10
64-67	67	M6 x 55	20	1,0	1,0	10	10
68-73	73	M8 x 70	25	1,5	1,2	13	20
74-79	79	M8 x 70	25	1,5	1,2	13	20
80-85	85	M8 x 70	25	1,5	1,2	13	20
86-91	91	M8 x 70	25	1,5	1,2	13	20
92-97	97	M8 x 70	25	1,5	1,2	13	20
98-103	103	M8 x 70	25	1,5	1,2	13	20
104-112	112	M8 x 80	25	1,5	1,2	13	20
113-121	121	M8 x 80	25	1,5	1,2	13	20
122-130	130	M8 x 80	25	1,5	1,2	13	20
131-139	139	M8 x 80	25	1,5	1,2	13	20
140-148	148	M8 x 80	25	1,5	1,2	13	20
149-161	161	M8 x 80	25	1,8	1,5	13	20
162-174	174	M8 x 90	25	1,8	1,5	13	20
175-187	187	M8 x 90	25	1,8	1,5	13	20
188-200	200	M8 x 90	25	1,8	1,5	13	20
201-213	213	M8 x 90	25	1,8	1,5	13	20
214-226	226	M8 x 90	25	1,8	1,5	13	20
227-239	239	M8 x 90	25	1,8	1,5	13	20
240-252	252	M8 x 90	25	1,8	1,5	13	20

	W1	W2	W4
Band	Mild Steel	1.4301 DIN EN-10088-2 or equivalent	1.4301 DIN EN-10088-2 or equivalent
Saddle	Mild Steel	1.4301 DIN EN-10088-2 or equivalent	1.4301 DIN EN-10088-2 or equivalent
Bolt	8.8 Mild Steel	8.8 Mild Steel	1.4301 DIN EN-10088-3 or equivalent
Tube	-	-	1.4401 DIN EN-10088-2 or equivalent
Bushing	Mild Steel	Mild Steel	1.4301 DIN EN-10088-2 or equivalent
Bolt nut	Mild Steel	Mild Steel	1.4301 DIN EN-10088-2 or equivalent

AD: Recommended tifhtening torque









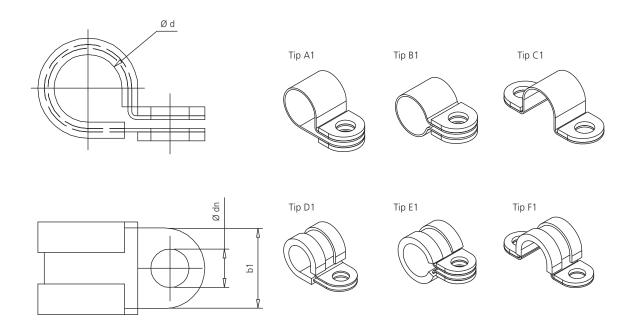








CC - Technical Properties



Rubber Type	CR	EPDM
Color	Black	Black
Temperature (C°)	- 35 - +100	- 40 - +120
Ozone Resistance	Very good	Very good
Light Resistance	Very good	Very good
Fuel Resistance	Sufficent	Insufficient
Oil Resistance	Good	Insufficient
Alcohol Resistance	Good	Good
Acid Resistance	Good	Good
Base Resistance	Good	Good

	W1	W3	W4	W5
Band	Mild Steel	1.4016 DIN EN-10088-2 or equivalent	1.4301 DIN EN-10088-2 or equivalent	1.4401 DIN EN-10088-2 or equivalent
Corrosion Resistance (min. Hour) ISO 9227	72	200*	240	400

*: %10 red rust allowed on the total surface of W3 products,
after salt spray test

Ø D (mm)	b1= 12,0 mm dn= 5,3 mm	b1= 15,0 mm dn= 6,4 mm	b1= 20,0 mm dn= 8,4 mm	b1= 25,0 mm dn= 10,5 mm
4,0	-	-	-	-
5,0	•	•	-	-
6,0	•	•	-	-
7,0	•	•	-	-
8,0	•	•	-	-
9,0	•	•	-	-
10,0	•	•	•	-
11,0	•	•	•	-
12,0	•	•	•	-
13,0	•	•	•	-
14,0	•	•	•	-
15,0	•	•	•	•
16,0	•	•	•	•
17,0	•	•	•	•
18,0	•	•	•	•
19,0	•	•	•	•
20,0	•	•	•	•
50,0	•	•	•	•







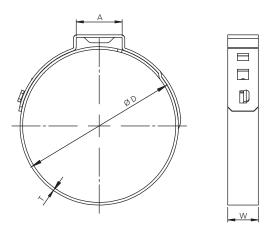






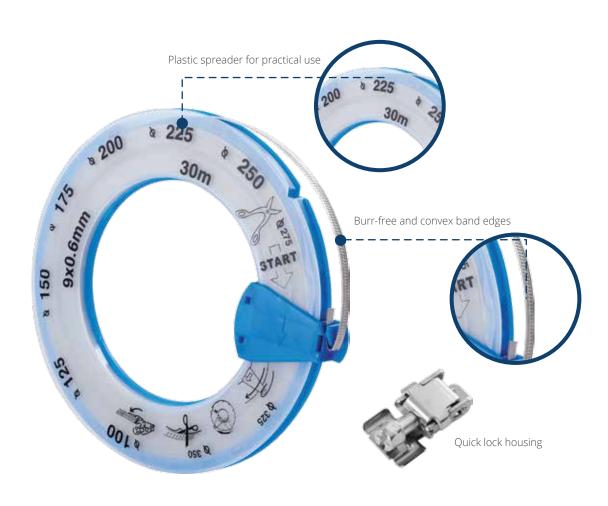


SE - Technical Properties



Description	Ø d - D(mm)	D(mm)	A(mm)	W(mm)	T(mm)
SE5 6,8 - 8,0 W4	6,8 - 8,0	8,0	6,0	5,0	0,5
SE5 7,0 - 8,7 W4	7,0 - 8,7	8,7	6,0	5,0	0,5
SE5 7,8 - 9,5 W4	7,8 - 9,5	9,5	6,0	5,0	0,5
SE5 8,8 - 10,5 W4	8,8 - 10,5	10,5	6,0	5,0	0,5
SE5 9,6 - 11,3 W4	9,6 - 11,3	11,3	6,0	5,0	0,5
SE5 10,1 - 11,8 W4	10,1 - 11,8	11,8	6,0	5,0	0,5
SE7 9,4 - 11,9 W4	9,4 - 11,9	11,9	8,5	7,0	0,6
SE7 9,8 - 12,3 W4	9,8 - 12,3	12,3	8,5	7,0	0,6
SE7 10,3 - 12,8 W4	10,3 - 12,8	12,8	8,5	7,0	0,6
SE7 10,8 - 13,3 W4	10,8 - 13,3	13,3	8,5	7,0	0,6
SE711,3 - 13,8 W4	11,3 - 13,8	13,8	8,5	7,0	0,6
SE7 11,5 - 14,0 W4	11,5 - 14,0	14,0	8,5	7,0	0,6
SE7 12,0 - 14,5 W4	12,0 - 14,5	14,5	8,5	7,0	0,6
SE7 12,8 - 15,3 W4	12,8 - 15,3	15,3	8,5	7,0	0,6
SE7 13,2 - 15,7 W4	13,2 - 15,7	15,7	8,5	7,0	0,6
SE7 13,7 - 16,2 W4	13,7 - 16,2	16,2	8,5	7,0	0,6
SE7 14,1 - 16,6 W4	14,1 - 16,6	16,6	8,5	7,0	0,6
SE7 14,3 - 16,8 W4	14,3 - 16,8	16,8	8,5	7,0	0,6
SE7 14,5 - 17,0 W4	14,5 - 17,0	17,0	8,5	7,0	0,6
SE7 15,0 - 17,5 W4	15,0 - 17,5	17,5	8,5	7,0	0,6
SE7 14,6 - 17,8 W4	14,6 - 17,8	17,8	10,5	7,0	0,6
SE7 15,3 - 18,5 W4	15,3 - 18,5	18,5	10,5	7,0	0,6
SE7 16,0 - 19,2 W4	16,0 - 19,2	19,2	10,5	7,0	0,6
SE7 16,6 - 19,8 W4	16,6 - 19,8	19,8	10,5	7,0	0,6
SE7 17,8 - 21,0 W4	17,8 - 21,0	21,0	10,5	7,0	0,6
SE7 19,4 - 22,6 W4	19,4 - 22,6	22,6	10,5	7,0	0,6
SE7 20,3 - 23,5 W4	20,3 - 23,5	23,5	10,5	7,0	0,6
SE7 20,9 - 24,1 W4	20,9 - 24,1	24,1	10,5	7,0	0,6
SE7 22,4 - 25,6 W4	22,4 - 25,6	25,6	10,5	7,0	0,6
SE7 23,9 - 27,1 W4	23,9 - 27,1	27,1	10,5	7,0	0,6
SE7 26,9 - 30,1 W4	26,9 - 30,1	30,1	10,5	7,0	0,6
SE7 31,4 - 34,6 W4	31,4 - 34,6	34,6	10,5	7,0	0,6
SE7 67,8 - 71,0 W4	67,8 - 71,0	71,0	10,5	7,0	0,6





Band Width	Band Thickness	Band Length	Material	Screw and Housing	Packaging
9 mm	0,6 mm	30m / rub	AISI 430 Stainless Steel	Galvanized Steel	50 units/ box







































Material	Size Range
1.4307 EN 10296-2 or equivalent	Ø 15,0 - Ø 50,0 mm

The ring width can be customized.









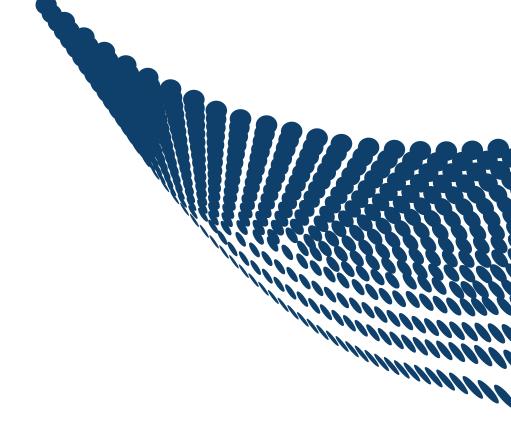




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