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**DGM**<sup>®</sup> (주) 동아 금속  
**DONG-A METAL CO.,LTD**



QUALITY STANDARDS  
ISO 14001:2004

World Best  
Autoparts supplier  
Dong-A Metal co.,Ltd



**DGM**<sup>®</sup> (주) 동아 금속  
**DONG-A METAL CO.,LTD**



More Competitive, More Innovative  
[www.dong-a-mt.co.kr](http://www.dong-a-mt.co.kr)



Since 1987, our company has been running only one way for automobile part industry such as spring-clamps and high-tech stamping parts by which we now could become a leading Korean supplier for many world customers for many years.

PPM(Particle Per Million) “0” is the first goal we are always trying to for which engineers and all members here have been doing their best from design to systemic production by our own technologies & facilities under good management systems.

Giving competitive price and good service to our customers will surely be the second goal we have to keep on from current reputation. And very good price & service, we are sure, could draw your keen interest to be considering a business opportunity mutually for finally making a real business under good relationship.

The only thing we want to say you with taking this chance is that we, DGM, want to be one of your world parts supplier or business partner, and would tell you showing our best services as possible as we can during the contracted period.  
President Han-II, Chung

Main Customers

Domestic	 <b>HYUNDAI</b> <i>Drive your way™</i>	 <b>KIA MOTORS</b> <i>The Power to Surprise™</i>	 <b>GM</b> K O R E A	 <b>LG</b> Life's Good	 <b>DOOWON</b>	 <b>HWASEUNG</b>	 <b>SSANGYONG MOTOR</b>	 <b>PYUNG HWA INDUSTRIAL CO., LTD.</b>	 <b>SAMSUNG</b>			
Overseas	 <b>ZHONGDING</b>	 <b>ZF</b>	 <b>GM</b>	 <b>DELPHI</b>	 <b>Continental</b>	 <b>BOGGE</b> RUBBER & PLASTICS	 <b>Stant</b>	 <b>HUTCHINSON®</b>	 <b>TI Automotive</b>	 <b>BorgWarner</b>	 <b>KIA</b>	 <b>HG 华光</b>



# Global Leader Dong-A

## We promise to make the best only!

Year.Month	Description
1987.11	Established at Daegu in Korea
1998.01	Incorporation of going business
2002.03	Business started with BORG WARNER as a global supplier
2003.10	Registration tier 1 supplier of Hyundai & Kia Motors
2005.12	Relocation to Waegwan plant (9,900㎡)
2006.12	Registration tier 1 supplier of GM Korea
2007.03	Business started with ZF BORG(Germany) as a global supplier
2008.03	Registration tier 1 supplier of Autoliv(Delphi global)
2008.05	Awarded the prime minister citation on entrepreneur's mass
2009.03	Business started with US ZF & NA Autoliv as a global supplier
2011.06	Registration tier 1 supplier of Sam-song
2012.01	Expansion the head-office plant (add 4,300 ㎡)
2013.12	Awarded 10 million dollar export tower prize
2014.01	Established "DGM-Tech" as subsidiary
2015.07	Acquired the Digital Innovation Awards 2015
2015.10	Acquired the certificate "GYEONGBUK Technopark" Pride 100
2015.11	GM Supplier Quality Excellence Award "GENERAL MOTORS"
2017.03	Selected as a Global hidden champions by the "Ministry of Trade, Industry and Energy"

Overseas Branch office		
Europe	North America	China
Germany (AWT) SINCE 2006	(Karam & Mesco) SINCE 2001	Shanghai (Jinxi) SINCE 2007





We make the parts as reliable quality  
customer-oriented products



Stepless Ear Clamps



Stainless Clamps



Hose Clamps



Welding Parts



Deep drawing & Stamping Parts



Seat belt & Airbag Parts





Air Intake Hose Clamp



Band Width (mm)	Clamping Diameter Ø(mm)	Recommended tightening torque(Nm)	Fracture torque (Nm)	Band thickness (mm)
9	40, 45, 50, 55, 60, 65 70, 75, 80, 85, 90, 95 100, 105, 110	3.0 ~ 3.9	5.0	0.7
12	40, 45, 50, 55, 60, 65 70, 75, 80, 85, 90, 95 100, 105, 110	3.0 ~ 6.0	9.0	0.7

Hose Clamp for Intercooler in Turbocharger



Band Width (mm)	Clamping Diameter Ø(mm)	Recommended tightening torque(Nm)	Fracture torque (Nm)	Band thickness (mm)
12	50, 55, 60, 65 70, 75, 80, 85 90, 95, 100	5.0 ~ 7.0	9.0	0.65

Technical Feature : Torque Control Cap

DGM Intercooler Hose Clamps have a torque control cap which can restrict initial tightening torque limits. Which makes workers check whether the clamps are assembled with adequate torque. This feature improve product quality and reduce fracture defective.

Commercial Vehicle Hose Clamp



Band Width (mm)	Clamping Diameter Ø(mm)	Recommended tightening torque(Nm)	Fracture torque (Nm)	Band thickness (mm)
14	79, 92, 105, 117, 130 143, 149, 156,168 175, 205, 219, 232 244, 270	8.5 ~ 11.8	14 ~ 26	0.7

Exhaust Clamp



Band Width (mm)	Clamping Diameter Ø(mm)	Recommended tightening torque(Nm)	Fracture torque (Nm)	Band thickness (mm)
18 (80°V Shaped)	53.5	20.0	30.0	1.5

High Pressure Series

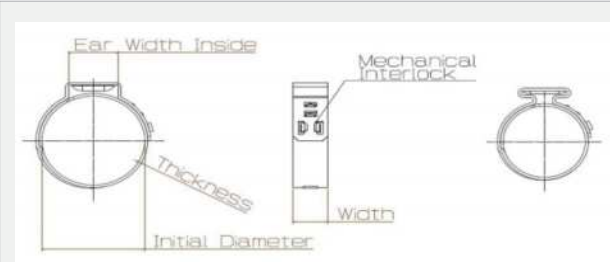


Size Range Ø(mm)	Width (mm)	Initial Diameter Ø(mm)	Ear Width Inside (mm)	Thickness (mm)
MIN 9.2	5.0	12.0	7.0	0.6
MIN 10.3	7.0	12.3	8.0	0.6
MIN 13.7	7.0	16.2	8.0	0.6
MIN 16.6	7.0	19.8	10.0	0.6
MIN 18.3	7.0	20.8	10.0	0.6
MIN 19.4	9.0	22.6	10.0	0.8
MIN 20.3	9.0	22.8	10.0	0.8
MIN 26.0	9.0	28.6	9.9	0.8
MIN 33.4	9.0	35.0	8.4	0.8
MIN 33.5	10.0	36.8	10.0	0.8
MIN 36.0	9.0	38.5	9.9	0.8
MIN 36.6	10.0	39.1	10.0	0.8
MIN 40.8	9.0	44.0	9.9	0.8
MIN 45.8	9.0	48.0	10.0	0.8
MIN 51.3	9.0	53.5	10.0	0.8
MIN 66.8	9.0	69.0	10.0	0.8
MIN 73.8	9.0	76.0	10.0	0.8

Standard Series (One Ear Clamp)



Size Range Ø(mm)	Width (mm)	Initial Diameter Ø(mm)	Ear Width Inside (mm)	Thickness (mm)
MIN 16.2	7.0	18.4	10.0	0.6
MIN 17.8	7.0	20.0	10.0	0.6
MIN 20.3	7.0	22.5	10.0	0.6
MIN 21.9	7.0	24.1	10.0	0.6
MIN 24.8	7.0	27.0	10.0	0.6
MIN 27.6	7.0	29.8	10.0	0.6
MIN 29.8	7.0	32.0	10.0	0.6



Max. Diameter Reduction =  $\frac{\text{Ear Width inside}}{\pi}$

High Pressure Series



Initial Diameter Ø(mm)	Full Opened Diameter Ø(mm)	Width (mm)	Thickness (mm)	Clamping Force (N)
MAX 13.9 (15)	MIN 16.5	12.0	1.0	MIN 199
MAX 17.8 (19)	MIN 20.2	12.0	1.4	MIN 200
MAX 19.4 (21)	MIN 22.5	12.0	1.4	MIN 200
MAX 25.2 (27)	MIN 29.2	12.0	1.8	MIN 368
MAX 37.2 (42)	MIN 43.7	12.0	2.3	MIN 500
MAX 38.2 (43)	MIN 44.9	12.0	2.3	MIN 500

Standard Series

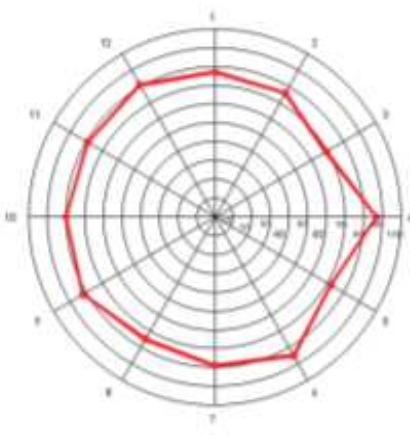


Initial Diameter Ø(mm)	Full Opened Diameter Ø(mm)	Width (mm)	Thickness (mm)	Initial Diameter Ø(mm)	Full Opened Diameter Ø(mm)	Width (mm)	Thickness (mm)
5.8±0.2	MIN7.0	6.0	0.6	20.8±0.3	MIN26.0	12.0	1.0
6.8±0.2	MIN8.3	6.0	0.4	21.0±0.3	MIN25.4	12.0	1.0
7.8±0.2	MIN9.5	6.0	0.6	21.7±0.3	MIN26.0	15.0	1.2
8.6±0.2	MIN10.6	8.0	0.7	22.3±0.3	MIN25.8	15.0	1.4
9.0±0.4	MIN11.5	8.0	0.8	23.0±0.4	MIN26.8	15.0	1.4
10.0±0.2	MIN12.2	8.0	0.6	23.7±0.3	MIN29.0	15.0	1.2
10.7±0.4	MIN12.8	8.0	0.9	24.0±0.4	MIN29.0	12.0	1.2
11.0±0.2	MIN13.3	8.0	0.7	25.0±0.4	MIN30.0	10.0	1.3
11.5±0.3	MIN13.5	15.0	0.8	25.2±0.3	MIN29.8	15.0	1.4
11.8±0.4	MIN13.8	8.0	0.9	25.8±0.3	MIN30.0	10.0	1.3
12.0±0.3,-0.2	MIN15.0	10.0	0.8	26.0±0.4	MIN32.0	12.0	1.2
MAX 12.2	MIN15.2	14.0	0.9	26.6±0.4	MIN31.0	15.0	1.4
12.5±0.4	MIN14.5	8.0	0.9	28.0±0.4	MIN35.0	12.0	1.2
12.8±0.2	MIN 15.0	8.0	0.9	28.5±0.4	MIN33.8	15.0	1.3
13.0±0.3	MIN14.6	8.0	0.8	30.0±0.4	MIN37.0	12.0	1.2
13.3±0.2	MIN 16.1	12.0	0.9	31.2±0.5	MIN37.5	15.0	1.4
13.8±0.2	MIN16.8	15.0	0.8	32.0±0.4	MIN39.0	12.0	1.2
14.2±0.4	MIN16.5	8.0	0.9	33.8±0.5	MIN40.0	18.0	1.5
14.4±0.3	MIN16.1	10.0	0.9	MAX 34.0	MIN42.0	18.0	1.5
14.8±0.2	MIN17.7	10.0	1.0	MAX 35.5	MIN42.5	12.0	1.7
15.2 이하	MIN19.0	16.0	1.1		MIN43.0	18.0	1.5
15.5±0.2	MIN18.2	12.0	1.0	MAX 36.0	MIN44.5	18.0	2.0
15.8±0.5	MIN19.5	15.0	1.2	37.0±0.5	MIN45.0	18.0	1.6
MAX 16.0	MIN18.5	16.0	1.1	MAX 37.5	MIN46.5	12.0	0.9
16.2±0.2	MIN19.7	12.0	1.2		MIN 46.5	18.0	2.0
16.7±0.3	MIN19.5	18.0	1.1	MAX 38.0	MIN47.0	15.0	1.8
17.0±0.3	MIN20.1	12.0	0.9	38.5±0.5	MIN48.0	18.0	1.6
17.2±0.3	MIN21.0	12.0	1.0	MAX 40	MIN46.2	18.0	2.0
MAX 17.5	MIN21.0	12.0	1.0	41.0±0.4	MIN48.0	15.0	2.0
17.8±0.3	MIN21.8	12.0	1.0	41.5±0.5	MIN49.9	17.0	1.8
MAX 18.5	MIN22.0	12.0	1.2	43.0±0.5	MIN52.1	18.0	1.8
18.7±0.3	MIN21.5	12.0	1.2	MAX 43.5	MIN53.5	15.0	2.0
19.0±0.3	MIN24.0	15.0	1.2	44.8±0.5	MIN54.2	18.0	1.8
19.7±0.3	MIN23.0	12.0	1.0	MAX 52.0	MIN65.0	15.0	2.5
20.0±0.3	MIN24.0	12.0	1.0	55.0±0.7	MIN67.8	20.0	2.0
20.2±0.3	MIN23.0	12.0	1.2	57.0±0.8	MIN69.0	15.0	1.6

There are lots of hose clamps are not marked on upper table.  
If you want to know those clamps, please contact us.

12-Point Force Test

12-Point Force Test is one of DGM stainless clamp's product evaluation test.  
12-Point Tester measures 12-direction (like clock hands) clamping force of stainless clamps.  
This test makes it possible to enhance reliability of the clamps by simulating conditions on applying in real assembly part.



**DGM®** (주) 동아금속  
DONG-A METAL CO.,LTD