



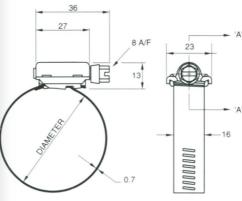
# since 1921



the finest hose clip

# **HIGH TORQUE** 304 Stainless Steel:-







	ensions			

Part No.	mm	stment Inches	Band Width mm	Band Thickness mm	Recommended Torque Nm	Maximum Torque Nm	Maximum Pressure PSi	Part No.
HT035	20- 35	<sup>3</sup> /4 -1 <sup>3</sup> /8	16.0	0.7	11.9	17.0	304.5	HT035
HT040	25- 40	1-1 <sup>5</sup> /8	16.0	0.7	11.9	17.0	304.5	HT040
HT045	25- 45	1-13/4	16.0	0.7	11.9	17.0	304.5	HT045
HT050	30- 50	1 <sup>1</sup> / <sub>4</sub> -2	16.0	0.7	11.9	17.0	304.5	HT050
HT070	40- 70	1 <sup>5</sup> /8-2 <sup>3</sup> /4	16.0	0.7	11.9	17.0	153.0	HT070
HT080	60- 80	$2^{3}/_{8}-3^{1}/_{8}$	16.0	0.7	11.9	17.0	153.0	HT080
HT095	70- 95	23/4-33/4	16.0	0.7	11.9	17.0	153.0	HT095
HT100	80-100	3 <sup>1</sup> / <sub>8</sub> -4	16.0	0.7	11.9	17.0	66.0	HT100
HT120	90-120	31/2-43/4	16.0	0.7	11.9	17.0	66.0	HT120
HT140	110-140	43/8-51/2	16.0	0.7	11.9	17.0	66.0	HT140
HT160	130-160	5 <sup>1</sup> /8-6 <sup>1</sup> /4	16.0	0.7	11.9	17.0	66.0	HT160
HT180	150-180	5 <sup>7</sup> / <sub>8</sub> -7	16.0	0.7	11.9	17.0	30.0	HT180
HT200	170-200	6 <sup>3</sup> /4-7 <sup>7</sup> /8	16.0	0.7	11.9	17.0	30.0	HT200
HT220	190-220	7½- <b>8</b> 5/8	16.0	0.7	11.9	17.0	30.0	HT220
HT240	210-240	81/4-91/2	16.0	0.7	11.9	17.0	30.0	HT240
HT260	230-260	9-101/4	16.0	0.7	11.9	17.0	30.0	HT260
HT280	250-280	9 <sup>7</sup> /8-11	16.0	0.7	11.9	17.0	30.0	HT280
HT300	270-300	105/8-113/4	16.0	0.7	11.9	17.0	30.0	HT300
HT320	290-320	11 <sup>3</sup> /8-12 <sup>1</sup> / <sub>2</sub>	16.0	0.7	11.9	17.0	30.0	HT320
HT340	310-340	12¼ -13³/ <sub>8</sub>	16.0	0.7	11.9	17.0	n/a	HT340
HT360	330-360	13-14 <sup>1</sup> /8	16.0	0.7	11.9	17.0	n/a	HT360
HT380	350-380	13¾-15	16.0	0.7	11.9	17.0	n/a	HT380
HT400	370-400	14½-15¾	16.0	0.7	11.9	17.0	n/a	HT400
HT420	390-420	15 <sup>3</sup> /8-16 <sup>1</sup> / <sub>2</sub>	16.0	0.7	11.9	17.0	n/a	HT420
HT440	410-440	16 <sup>1</sup> /8-17 <sup>1</sup> /4	16.0	0.7	11.9	17.0	n/a	HT440
HT460	430-460	17-18 <sup>1</sup> / <sub>8</sub>	16.0	0.7	11.9	17.0	n/a	HT460
HT480	450-480	17 <sup>3</sup> / <sub>4</sub> -18 <sup>7</sup> / <sub>8</sub>	16.0	0.7	11.9	17.0	n/a	HT480
HT500	470-500	18½-19 <sup>5</sup> /8	16.0	0.7	11.9	17.0	n⁄a	HT500
HT520	490-520	19 <sup>5</sup> / <sub>16</sub> -20 <sup>1</sup> / <sub>2</sub>	16.0	0.7	11.9	17.0	n/a	HT520

**Quality Assurance:-**



Corrosion Resistance: 1000 hours NSS Test

Fastening: 8mm A/F screw

#### **Industry Recommendations:-**















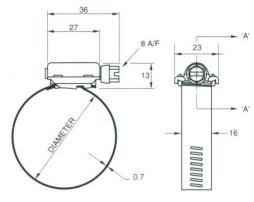


SAE J1508 Surface Vehicle Standards-Hose Clamp Specifications, Type HD is referenced in the quality control methods for the design/manufacture of the Jubilee High Torque Range of clips.



# JUBILEE HIGH TORQUE – WORM DRIVE CLIPS

Adjustment	304 / Jubilee Part No	A2 / W4 RS Part No.	Fastening Type	Screw	Band Width	Band Thickness	Recommended Torque	Maximum Torque	Maximum Pressure
mm				mm	mm	mm	Nm	Nm	Psi
20-35	HT035	1245739	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	304.5
25-40	HT040	1245740	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	304.5
25-45	HT045	1245741	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	304.5
30-50	HT050	1245742	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	304.5
45-65	HT065	1245744	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	153
40-70	HT070	1245745	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	153.0
60-80	HT080	1245746	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	153.0
70-95	HT095	1245747	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	153.0
80-100	HT100	1245748	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	66.0
90-120	HT120	1245749	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	66.0
110-140	HT140	1245750	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	66.0
130-160	HT160	1245751	Worm Drive	Slotted Hex Head 8mm A/F	16	0.7	11.9	17	66.0



All dimensions in mm



### Background



Jubilee® Clips were manufactured as the first worm drive hose clamp in 1921, the company held the first patent for worm drive hose clips and has been manufacturing hose clips in Great Britain ever since. The name Jubilee® Clip, remains a registered trademark throughout the world.

Jubilee® Clips offer a wide range of clamping solutions which are available at RS Components (shown opposite).

### Types of Hose Clip

#### Original Range (Worm Drive Clips)



The Original Jubilee® Clip, the product that started it all! For the vast majority of applications this sturdy worm drive hose clip is more than suitable. Available as a mild steel zinc protected or stainless steel clamp in both 304 (18/8) and 316 (18/10) grades of stainless steel; this product also has a band that is continuously threaded enabling extra flexibility when adjusting the clip to the correct size. The smooth inside profile of the band and rolled edges give protection for all types of hoses including soft hoses made from rubber or silicone.

All our original Jubilee® Clips are independently tested by the British Standards Institute (BSi) and carry the British Standard Kitemark™, which is universally regarded as the most stringent standard there is for a hose clip. Both grades of stainless steel clips are also accredited by Lloyd's Register for marine use.

Industry Recommendations =









#### Jubilee High Torque (Heavy Duty Clip)

This stainless sleel clip has twice the tightening torque the original British Standard worm drive hose clips which creates more than twice the band tension for stubborn leakage or vibration applications. They have a two part housing and cut through band, keeping the band straight at the point of engagement and fully engaging all of the screw thread; giving a superior tightening torque.





#### Jubilee® Juniors (Mini Clips)

These mini clips, also known as nut & bolt clips, are ideal for small bore hoses with relatively low pressures, where little clamping force is required. Used in low pressure applications such as a fuel line. Adjusted by a single bolt.

Industry Recommendations =

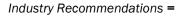






#### Jubilee® Superclamps (Heavy Duty Clips)

A Heavy duty clamp, offering the highest tightening torques with 8.8 high tensile bolts allowing an impressive maximum recommended torque of 25Nm. Naturally with the smaller clamps using a smaller bolt the torques are lower, but even so, the torques are impressive by comparison to alternative clip types for the same size range. Suitable for a wide range of applications, including marine and offshore oil and gas installations.





Stainless Steel 304 & 316 also









### Types of Hose Clip



#### Jubilee® Multiband (Self Assembly Clips)

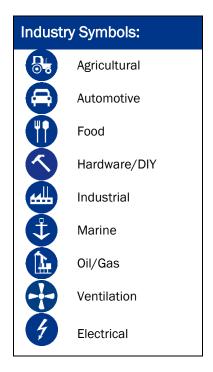
A self-assembly, endless banding, or screw band system, which allows the user to cut the band to the desired length.

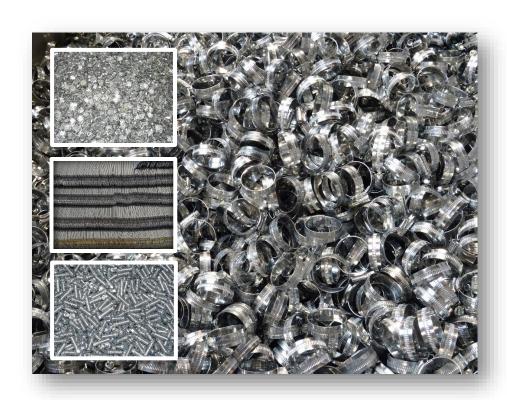
Used in areas such as heating, ventilation and air conditioning (HVAC), sign fixing, conduit and cable retention and lagging, this product is very versatile. A number of screw and housing designs are available to suit any application.













### **Fastening Types**



#### Worm Drive e.g. Jubilee Original Range

The screw in a worm drive hose clip adjusts the diameter of the clip to suit the size of hose it secures and is directly engaged with the band.



#### Nut & Bolt e.g. Jubilee Juniors & Jubilee Superclamps

Here the bolt used to adjust the diameter of the clip is not engaged in the band, instead it is connected to a nut or trunnion.



#### Pinch

No screws or bolts are used for this type of clip; the adjustment is performed by permanently deforming (crimping) 'ears' on the clip using a special tool.

### **Industry Standards**



#### BS5315:1991

The British Standard for the manufacture of hose clamps (worm drive type) for general purpose use (metric series). It is the only standard that uses a pressure test and is universally regarded as the most stringent Standard for a hose clip in the world. To carry the Kitemark™ the clips must also pass independent testing.



#### Lloyd's Type Approved

A Type Approval from Lloyd's Register (LR), a marine classification society, demonstrates that the product conforms to recognised industry quality standards, International Conventions and/or the LR Rules, through a process of independent design review, sample testing and verification of production controls. Essential for products used in marine applications.



#### **DIN 3017**

DIN 3017-1 is a dimensional norm for hose clips type: worm drive by the Deutsches Institut für Normung e.V. (German Institute for Standardization).



#### SAE

SAE Standard J1508 is an American standard and covers 32 types of hose clips (clamps) most commonly and suitably being used on coolant, fuel, oil, vacuum, and emission systems, describing the basic characteristics and minimum performance requirements recommended.

### **Hose Clip Materials**



#### W1 (Mild Steel Zinc Protected/Zinc Plated)

All parts of the clip are mild steel zinc protected/plated which is the most common material for hose clips. Mild steel (also known as carbon steel) has a low to moderate natural resistance to corrosion which is overcome by coating with zinc. Corrosion resistance even with zinc coating is lower than 304 & 316 grades of stainless steel.

#### W4 (304 Grade Stainless Steel / A2 / 18/8)

All component parts of the hose clip are 304 grade. The clips have a higher corrosion resistance, making them suitable for outdoor applications as well as having good general corrosion resistance to slightly acidic as well as caustic media. 304 grade stainless steel is also known as 18/8 stainless due to its chemical composition which includes approximately 18% chromium and 8% nickel by weight. This material is magnetic.

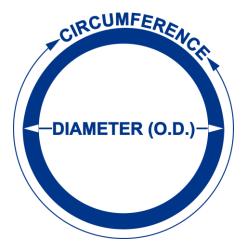
#### W5 (316 Grade Stainless Steel / A4)

All parts of the hose clips are 316 "marine grade" stainless steel, offering an even higher corrosion resistance than 304 grade in most acidic conditions, especially at higher temperatures and or with chlorides present. Suitable for marine, offshore and food industries.

316 grade stainless steel is known as 18/10 stainless or High Nickel Stainless Steel (HNSS) due to the increased percentage of 10% nickel in the alloy's chemical composition. Non-magnetic.

### How to select the correct size hose clip for your application?

- 1. Obtain the outside diameter (O.D.) of your hose ensuring that the hose is assembled on the pipe or tube fitting for accurate measurement.
  - a. Measure the outside diameter (O.D.) of the hose & fitting using a caliper.  $\ensuremath{\text{OR}}$
  - b. Measure the circumference of the hose and then calculate the diameter using the formula below:



Outside Diameter (O.D.) = Circumference (C)  $\div$  3.1416 (Pi)

- 2. Select hose clip size remembering that hose clip sizes always refer to the diameter.
- 3. Aim to select a clip with the hose diameter matching the middle of the clip's adjustment range

