

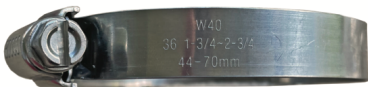


# HOSE CLAMPS

## HOSE CLAMP IDENTIFIERS



**HOUSING STAMP**  
304 SS



**BAND STAMP**  
W40 (VH2) 304 SS  
SAE Size - (4M-128)  
Clamping Range - inch & mm



**SCREW TIP MARKING**  
#3 - 304 SS Screw

## SAE J1508 TYPE F & TYPE M-MINI WORM-GEAR HOSE CLAMPS - 304 & 316 STAINLESS STEEL

FAMILY	HOUSING	BAND	HEX HEAD SCREW	CLAMP FAMILY IDENTIFIER	BAND STAMP (ALL MANUFACTURERS)	COO	CORROSION RESISTANCE
VH1	304 STAINLESS	304 STAINLESS	400 SERIES STAINLESS PLATED	W30 STAMP ON BAND	SAE SIZE & CLAMPING RANGE	TAIWAN	BETTER
VH2	304 STAINLESS	304 STAINLESS	304 STAINLESS	W40 STAMP ON BAND	SAE SIZE & CLAMPING RANGE	TAIWAN	BEST
VH3	316 STAINLESS	316 STAINLESS	316 STAINLESS	W50 STAMP ON BAND	SAE SIZE & CLAMPING RANGE	TAIWAN	PREMIUM
VH4	304 STAINLESS	304 STAINLESS	CARBON STEEL PLATED	PHILLIPS/COMBO DRIVE SCREW	SAE SIZE & CLAMPING RANGE	TAIWAN	GOOD

# WORM-GEAR HOSE CLAMPS

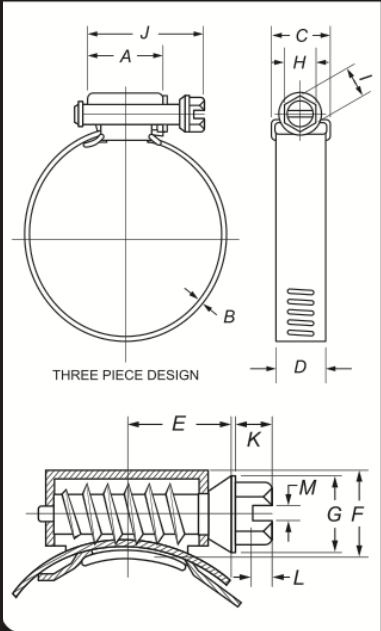
Worm-Gear or Worm-Drive hose clamps are versatile hose clamps that feature a tangential worm-drive screw that engages with either pierced-through slots or embossed threads, enabling easy installation. They are designed to secure a hose or tube over a fitting and act as a seal to prevent fluid, gas, or air from leaking at the connection.

One of the unique features of the Worm-Gear hose clamp is its 2-part housing and band construction. This design allows the band to detach from the housing, making it possible to install the clamp without removing the hose or tube. The **Clamping Range** of these clamps may vary slightly by manufacturer and refers to the minimum and maximum usable diameter.

**Durability Torque** is the maximum torque value that can be applied to a clamp without evidence of deformation or excessive wear when tightened once over a mandrel. The durability torque value varies based on the screw type. This torque value is critical in ensuring that the clamp remains effective over time, as over-tightening can lead to deformation, and under-tightening can cause the clamp to loosen and fail.

**Installation Torque**, also known as application torque, is the recommended torque value for installing the clamp. According to the SAE J1508 standard, this is typically set at 50% to 70% of the rated "Durability Torque" for specific clamps. However, the suggested installation torque for a particular application must be established by the supplier and user, taking into account the physical configurations, properties of the materials involved, and assembly tools to be used.

## SAE J1508 TYPE F & TYPE M-MINI WORM-GEAR HOSE CLAMP STANDARD



DIMENSION	TYPE F (inch)	TYPE F (mm)	TYPE M MINI (inch)	TYPE M MINI (mm)
A. HOUSING LENGTH	0.76	19.30	0.42	10.70
B. THICKNESS	0.021/0.031	0.53/0.79	0.019/0.026	0.48/0.66
C. HOUSING WIDTH	0.81	20.60	0.60	15.20
D. BANDWIDTH	0.495/0.569	12.57/14.45	0.305/0.325	7.75/8.26
E. MAX AT OPEN DIAM.	0.75	19.10	0.44	11.20
F. HEIGHT	0.56	14.20	0.38	9.60
G.*COLLAR DIAM.	0.370/0.425	9.40/10.80	NA	NA
H. ACROSS FLATS	0.305/0.312	7.75/7.92	0.244/0.250	6.20/6.35
I. ACROSS CORNERS (MIN)	0.34	8.64	0.27	6.86
J. SCREW LENGTH (MAX)	1.35	34.30	0.80	20.30
K. HEX HEIGHT	0.14/0.25	3.56/6.35	0.140/0.185	3.56/4.70
L. SLOT DEPTH	0.077/0.120	1.96/3.05	0.052/0.105	1.32/2.67
M. SLOT WIDTH	0.056/0.076	1.42/1.93	0.042/0.060	1.07/1.52

Type M-Mini Clamps do not have collars (G) as standard. Dimensions may vary slightly by Manufacturer

DURABILITY TORQUE

CLAMP TYPE	SCREW TYPE		
	CARBON STEEL	400 SERIES STAINLESS	300 SERIES STAINLESS
TYPE F	50 IN-LB (5.6 Nm)	60 IN-LB (6.8 Nm)	60 IN-LB (6.8 Nm)
TYPE M	20 IN-LB (2.3 Nm)	20 IN-LB (2.3 Nm)	15 IN-LB (1.7 Nm)
BBI TYPE M*	26 IN-LB (3 Nm)	28 IN-LB (3.2 Nm)	30 IN-LB (3.4 Nm)

INSTALLATION TORQUE

CLAMP TYPE	SCREW TYPE		
	CARBON STEEL (RANGE)	400 SERIES STAINLESS (RANGE)	300 SERIES STAINLESS (RANGE)
TYPE F	25-35 IN-LB (2.8-4 Nm)	30-42 IN-LB (3.4-4.8 Nm)	30-42 IN-LB (3.4-4.8 Nm)
TYPE M	10-14 IN-LB (1.1-1.6 Nm)	10-14 IN-LB (1.1-1.6 Nm)	7.5-10.5 IN-LB (0.9-1.1 Nm)
BBI TYPE M*	13-18.2 IN-LB (1.5-2.1 Nm)	14-19.6 IN-LB (1.6-2.2 Nm)	15-21 IN-LB (1.7-2.4 Nm)

\*Note - Type M-Mini Clamps have a wider band than the industry standard - ~ 3/8" (0.35") vs 5/16" (0.312") - and has a higher torque rating which allows the clamp to withstand higher pressure.

MARKETS

AUTOMOTIVE	MARINE	PLUMBING/HVAC	IRRIGATION	RESIDENTIAL/DIY
VH1, VH2, VH3	VH2, VH3	VH1, VH2, VH3, VH4	VH1, VH2, VH3	VH1, VH2, VH4
GARDEN	INDUSTRIAL/MRO		FOOD	MEDICAL
VH1, VH2	VH1, VH2, VH3		VH2, VH3	VH2, VH3

SAE J1508 TYPE M-MINI

~3/8" (.35") (9MM) WIDE BAND  
1/4" HEX HEAD SCREW

SAE SIZE	CLAMPING RANGE (INCH)	CLAMPING RANGE (MM)
4M-MINI	5/16"-5/8"	8-16
6M-MINI	1/2"-7/8"	13-23
8M-MINI	1/2"-1"	13-25
10M-MINI	9/16"-1-1/16"	14-27
12M-MINI	11/16"-1-1/4"	17-32
16M-MINI	13/16"-1-1/2"	21-38

SAE J1508 TYPE F

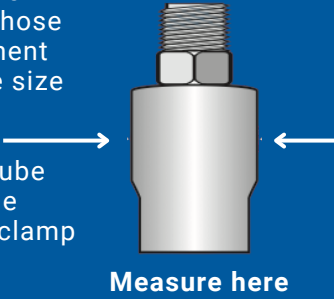
1/2" (12.7MM) WIDE BAND  
5/16" HEX HEAD SCREW

SAE SIZE	CLAMPING RANGE (INCH)	CLAMPING RANGE (MM)
6	1/2"-7/8"	13-23
8	1/2"-1"	13-25
10	9/16"-1-1/16"	14-27
12	11/16"-1-1/4"	17-32
16 (11/16)	11/16"-1-1/2"	17-38
16 (13/16)	13/16"-1-1/2"	21-38
20	13/16"-1-3/4"	21-44
24	1"-2"	25-51
28	1-1/4"-2-1/4"	32-57
32	1-1/2"-2-1/2"	38-63
36	1-3/4"-2-3/4"	44-70
40	2"-3"	51-76
44	2-1/4"-3-1/4"	57-82
48	2-1/2"-3-1/2"	64-89
52	2-3/4"-3-3/4"	70-95
56	3"-4"	76-102
60	3-1/4"-4-1/4"	82-108
64	3-1/2"-4-1/2"	89-114
72	4"-5"	102-127
80	4-1/2"-5-1/2"	114-140
88	5"-6"	127-152
96	5-1/2"-6-1/2"	140-165
104	6"-7"	152-178
128	5-5/8"-8-1/2"	143-216

HOSE CLAMP INSTILLATION

To properly install a Worm-Gear hose clamp, follow these steps:

- Measure the outside diameter of the hose or tube in the area where the hose fits over the fitting. This measurement will help you select the appropriate size clamp.
- Select a clamp where the hose or tube diameter falls at the midpoint of the clamping range. Avoid choosing a clamp that is too large to prevent a long extended tail when tightened.
- Remove the hose or tube from the fitting, or fully open the clamp by releasing the band from the screw housing and sliding the hose clamp onto the hose. Position the clamp on the hose and re-engage the band, or reattach the hose or tube to the fitting.
- Once the hose is securely fastened, place the clamp approximately 1/4" from the end of the hose.
- Hand-tighten the clamp with a screwdriver or hex nut driver. Avoid over-tightening, as this can cause damage, failure or leakage. For critical applications, use a torque wrench to ensure the proper installation torque is applied.



It's essential to ensure that the clamp is tightened appropriately and not over-tightened. Over-tightening can cause damage to the hose or tube and lead to leakage. It's also recommended to periodically inspect and check the clamp's tightness to ensure it remains secure over time. Proper installation of Worm-Gear hose clamps will provide a secure and effective seal for your hose or tube connections.

