

Part 12 Hose Clamps

12.1 Hose Clamps

12.1 HOSE CLAMPS

General Information

Worm-Drive Clamp System ADVANTAGES OVER OTHER CLAMP SYSTEMS



1. Special Shoulder - The shoulder behind the hex head keeps tools like sockets or nut drivers from jamming into the slots or band-end, making the clamp appear to be tight when it isn't.

2. 16" Hex Head - The 5/16" hex head found on all our clamps provides clearance for open-end wrenches, whereas larger hexes (3/8", etc.) do not, making wrench tightening difficult if not impossible

3. Through Slotted - The open slot allows for the use of any size screwdriver. With larger screwdrivers it is easier to tighten the clamp. Slots that are closed at the sides require the use of a small screwdriver.

4. Corrosion Resistant - All clamps are 100% stainless steel. The band, saddle and housing are made from 300 series stainless steel.



5. Finished edge on all bands. The benefit to you is prevention of hose change due to cuts.

6. Concave band compared to flat means the clamp seals from the center to the outside which produces uniform sealing.

7. Arcial Cut Band compared to square cut. For smoother gear action and greater torquing for a stronger band which means less failure and laborsavings.

8. Quadru-lock Housing - a housing with no welds to break, higher torque to band providing less cold water leaks and band failures due to stripped or broken clamps.



9. Exceeds by 50% the Quality Control Standards of an AMO MS Mil Spec for worm-drive clamps. These clamps have been and are used on all space shuttles. The value to you is in the vibration-proof features.

12.1 HOSE CLAMPS

Aero-Seal Industrial / Aircraft Clamps

The Original Stainless Steel Worm-Drive Clamp

Assortment Avail.

96501
96506
95973

Features

- Heavy-duty four-piece Quadra-lock construction enables more tightening torque to be delivered to the band perforations.
- Ideal for heavy duty industrial applications.
- All stainless steel clamp with stainless steel screw.



Effective Diameter Range						
No.	Industry No.	Min.		Max.		Qty
		In.	mm	In.	mm	
68000	#4 MINI	1/4	6	5/8	16	10
68002	#6 MINI	5/16	8	7/8	22	10
68004	#10 MINI	3/8	10	1-1/16	27	10
68006	#6	3/8	10	7/8	22	10
68008	#8	7/16	11	1	25	10
68010	#10	1/2	13	1-1/16	27	10
68012	#12	1/2	13	1-1/4	32	10
68016	#16	11/16	18	1-1/2	38	10
68020	#20	3/4	19	1-3/4	44	10
68024	#24	1	25	2	51	10
68028	#28	1-1/4	32	2-1/4	57	10
68032	#32	1-1/2	38	2-1/2	63	10
68036	#36	1-3/4	44	2-3/4	70	10
68040	#40	2-1/16	52	3	76	10
68044	#44	2-1/4	57	3-1/4	82	10
68048	#48	2-1/2	64	3-1/2	89	10
68052	#52	2-13/16	71	3-3/4	95	10
68056	#56	—	76	4	101	10
68060	#60	3-5/16	84	4-1/4	108	10
68064	#64	3-9/16	90	4-1/2	114	10
68072	#72	4-1/16	103	5	127	10

12.1 HOSE CLAMPS

Liner Clamps

For Soft Silicone Hose

Assortment Avail.			
96500			

Features

- Liner band is an integral extension of the band.
- Liner is not riveted or welded.
- Protects silicone and other soft surface hose from damage caused by extrusion or shearing through the band slots.
- Liner clamps are designed to give a true concentric seal.



Effective Diameter Range						
No.	Industry No.	Min.		Max.		Qty
		In.	mm	In.	mm	
68506	#6	9/16	14	13/16	21	5
68508	#8	11/16	17	15/16	24	5
68510	#10	13/16	21	1-1/16	27	5
68512	#12	15/16	24	1-1/4	32	5
68516	#16	13/16	21	1-1/2	38	5
68520	#20	13/16	21	1-3/4	44	5
68524	#24	1-1/16	17	2	51	5
68528	#28	1-5/16	33	2-1/4	57	5
68532	#32	1-9/16	40	2-1/2	64	5
68536	#36	1-13/16	46	2-3/4	70	5
68540	#40	2-1/16	52	3	76	5
68544	#44	2-5/16	59	3-1/4	83	5
68548	#48	2-9/16	65	3-1/2	89	5

12.1 HOSE CLAMPS

Constant Torque Liner Clamps

Active Pressure-Compensating Clamps

This revolutionary clamp reacts to contracting and expanding hose systems by increasing or decreasing its own diameter in response to system changes.

Just about all rubber hose compresses ("cold flow") after a clamping device is installed. This results in an 80% or greater torque loss almost immediately following installation. Also, just about all metal connections will expand as the system heats up and then contract as the system cools back down. Most other clamping systems (conventional worm gear, "T" bolt, etc.) are passive systems, which means that expansion and contraction of system components can not be adjusted for without retightening or loosening the clamps. The constant torque clamping system is an "active" clamping system, which means that it monitors the system and then makes compensations for the changes by changing its diameter through a unique worm gear-Belleville spring assembly.

Constant Torque Liner Clamps are ideal for: sealed systems which cannot be retightened; systems where clamps are difficult to get to; applications which require high torque; large diameters; experience extremes of heat or cold; or systems which expand or contract.

Constant Torque Liner Clamps are designed for torque compensation at installation torques from 50 to 150 in-lbs and all parts are made of stainless steel. To properly install a Constant Torque Liner Clamp a torque wrench should be used.



Housing orbitally riveted to saddle at 4 points provides extra strength

Liner protects soft or silicone hose from damage, extrusion, or shear



Energy stored in compressed Belleville springs controls automatic clamp adjustment

Eight screw threads (instead of 3 or 4 found in other clamps) are engaged at all times for high torquing drive and vibration resistance.

Full 5/8" band width provides greater sealing surface.

12.1 HOSE CLAMPS

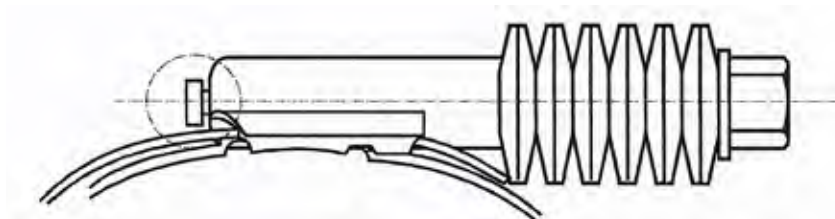
Constant Torque Liner Clamps Cont'd.

No.	Effective Diameter Range				Qty
	Min.		Max.		
	In.	mm	In.	mm	
68906	1	25	1-3/4	44	1
68908	1-3/4	45	2-5/8	67	1
68910	2-1/4	57	3-1/8	79	1
68912	2-3/4	70	3-5/8	92	1
68914	3-1/4	83	4-1/8	105	1
68916	3-3/4	95	4-5/8	118	1

ASSEMBLY INSTRUCTIONS

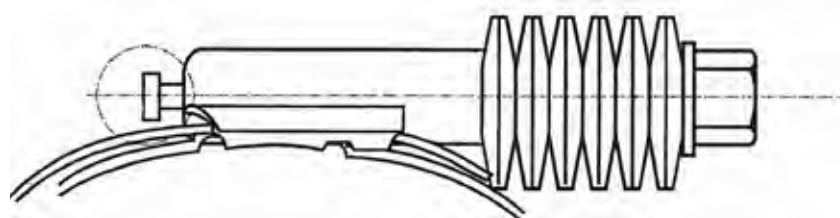
Maximum Expansion

Clamps should be installed at 50 in-lbs of torque.
Screw tip (encircled) should slightly protrude from housing.



Equal Expansion or Contraction

Clamps should be installed at 90 in-lbs. of torque. Screw tip (encircled) protrudes from housing and Belleville springs are compressed.



Maximum Contraction

Clamps should be installed at 125 in-lbs of torque. Screw tip (encircled) extends well beyond housing and Belleville springs are compressed to about 90% of flat

12.1 HOSE CLAMPS

High Torque Liner Clamps

Guaranteed To Withstand More Than 3 Times The SAE Standard Torque Requirements For Worm Drive Clamps

An industrial strength worm-drive stainless steel clamp which is bigger, heavier and stronger than the "Aero-Seal" clamp.



Features

- All components made of stainless steel.
- Heavy gauge housing orbitally riveted to saddle.
- Designed so that 8 screw threads are simultaneously engaged in the band for increased torquing drive, sealing pressure and vibration resistance. Liner band extends underneath drive slots to protect soft and silicone hose from damage or extrusion.
- Eliminates double clamping and "T" bolts.
- 150 in-lbs of torque on the screw.

No.	Effective Diameter Range				Qty
	Min.		Max.		
	In.	mm	In.	mm	
68600	1	25	1-3/4	44	1
68602	1-1/4	32	2-1/8	54	1
68604	1-3/4	45	2-5/8	67	1
68606	2-1/4	57	3-1/8	79	1
68608	2-3/4	70	3-5/8	92	1
68610	3-1/4	83	4-1/8	105	1
68612	3-3/4	95	4-5/8	118	1
68614	4-1/4	108	5-1/8	130	1
68616	4-3/4	133	6-1/8	156	1
68618	5-3/4	146	6-5/8	168	1
68620	6-1/4	159	7-1/8	181	1
68622	7-1/4	184	8-1/8	206	1
68624	8-1/4	210	9-1/8	232	1

12.1 HOSE CLAMPS

Two Ear Hose Clamps

Assortment Avail.

			96508				

Features

- One piece design offers a positive, tamper-proof seal without damaging the hose.
- Assures adequate closure and compensates for tolerance variations in hose sizes
- Ideal for industrial use and heavily vibrating equipment.
- Suitable for low and medium pressure hydraulic air, fluid, gas and stem lines
- Easy to apply—slide on and crimp.
- Zinc plated steel.



No.	Size	Effective Diameter Range				Qty
		Min.		Max.		
		In.	mm	In.	mm	
68625	5/32	.122	3.1	.161	4.1	10
68626	3/16	.134	3.4	.197	5.0	10
68627	1/4	.197	5.0	.276	7.0	10
68628	5/16	.276	7.0	.354	9.0	10
68629	3/8	.319	8.1	.433	11.0	10
68630	1/2	.425	10.8	.512	13.0	10
68631	9/16	.492	12.5	.591	15.0	10
68632	5/8	.591	15.0	.709	18.0	10
68633	3/4	.638	16.2	.787	20.0	10
68634	7/8	.748	19.0	.906	23.0	10
68635	1	.886	22.5	1.063	27.0	10
68636	1-1/8	1.063	27.0	1.220	31.0	10
68637	1-5/16	1.154	29.3	1.339	34.0	10
68638	1-7/16	1.260	32.0	1.457	37.0	10
68639	1-1/2	1.378	35.0	1.575	40.0	10

Ear Clamp Jaw Pincers

Ear Clamp Jaw Pincers are applied to the ears and closed with sufficient force to draw the lower radii together to a position where component compression is evident and the clamp ear assumes a symmetrical “omega” shaped formation.

Features

- Sturdy construction.
- Cushion grips for better handling.
- Versatile tool - can install and remove pinch clamps.
- Easy to handle



No.	Description	Qty
68650	Ear Clamp Std Jaw Pincers	1



No.	Description	Qty
68651	Ear Clamp Side Jaw Pincers	1