

گشتاورهای سفت کننده استاندارد

در مواردی که گشتاور ذکر نشده است با توجه به اندازه رزوه و کلاس هر پیچ از گشتاور استاندارد استفاده کنید



احتیاط

تمام مواد درگیر در برنامه باید هنگام محاسبه گشتاور در نظر گرفته شوند. این امر به ویژه مهم است هنگامی که اجسامی که باید بسته شوند دارای گشتاور کمتری نسبت به خود پیچ / مهره هستند.

Screw, 8.8 class, medium level

Thread	Assembling torque (Nm)
M5	6 ± 1
M6	10 ± 1.5
M7	17 ± 3
M8	24 ± 4
M10	48 ± 8
M12	85 ± 15
M14	140 ± 25
M16	220 ± 35
M18	290 ± 45
M20	430 ± 70
M22	580 ± 90
M24	740 ± 120

Screws, class 10.9, medium level

Thread	Assembling torque (Nm)
M5	7.5 ± 1.2
M6	12 ± 2
M7	22 ± 3
M8	30 ± 5
M10	60 ± 10
M12	105 ± 20
M14	175 ± 30
M16	275 ± 45
M18	360 ± 55
M20	540 ± 90
M22	730 ± 120
M24	900 ± 140

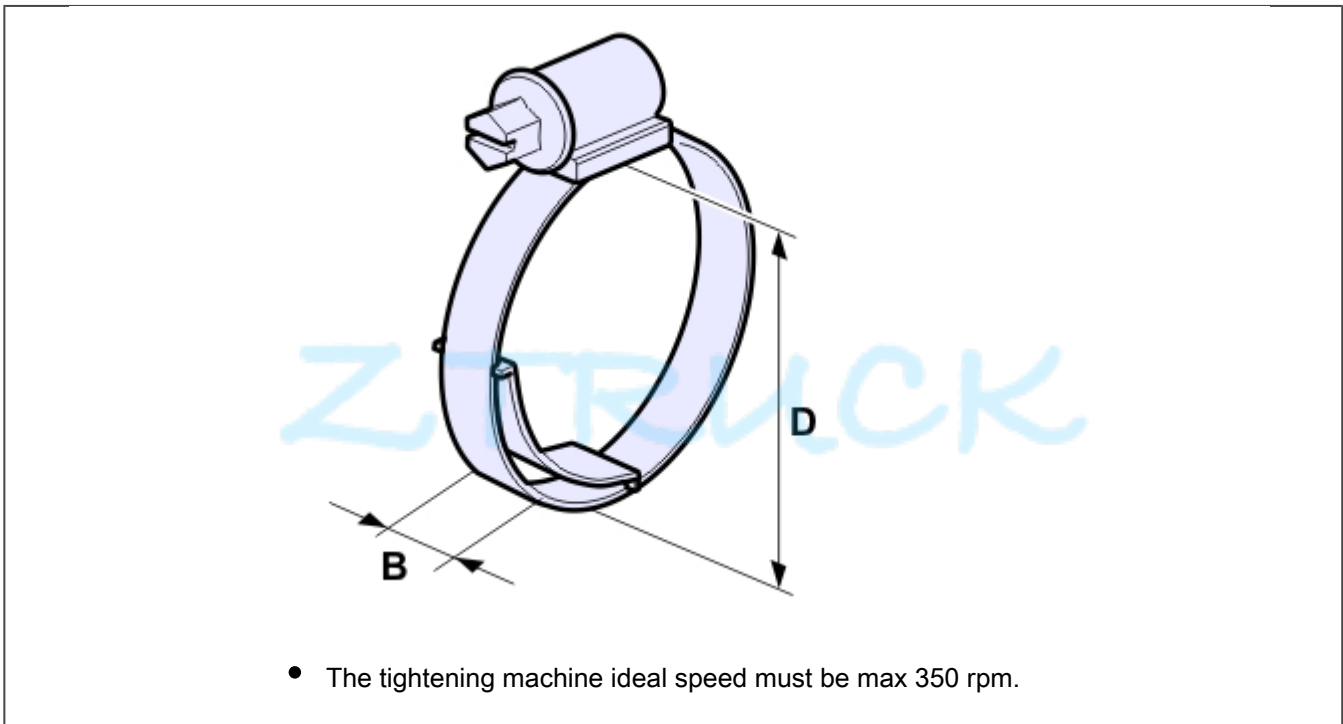
Screws, class 8.8, UN thread

Thread Inch	Assembling torque (Nm)
1/4	10 ± 2.5

5/16	20 ± 5
3/8	40 ± 10
7/16	60 ± 15
1/2	100 ± 25
9/16	140 ± 30
5/8	200 ± 50

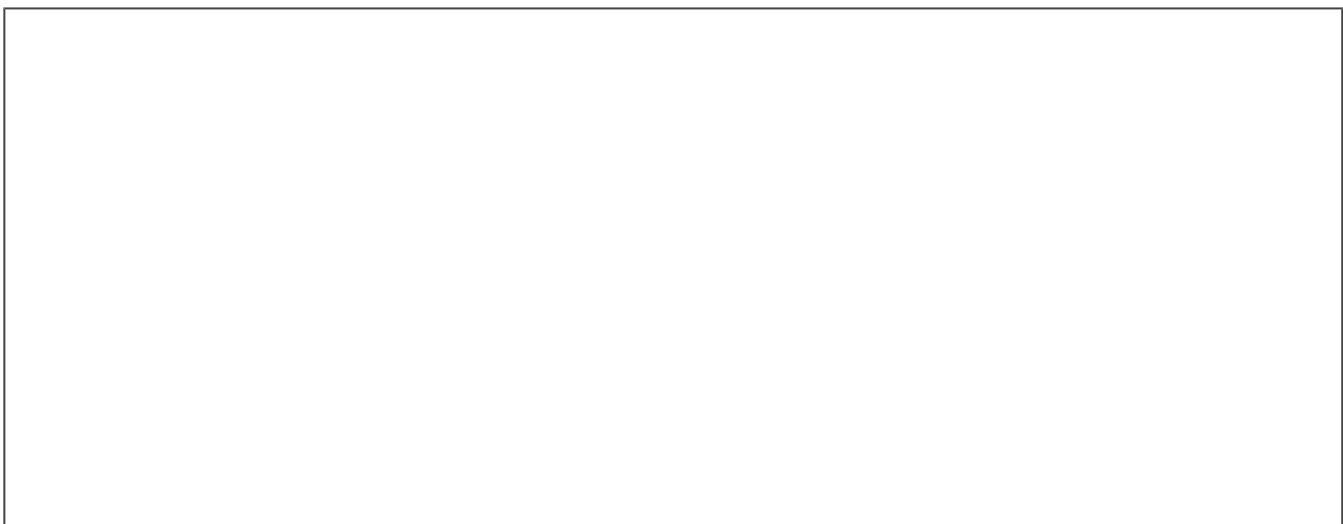
Hose clamps with spring function

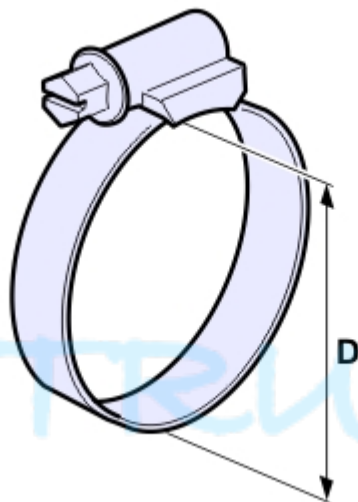
Note: It is recommended the following tightening torque for clamps on hoses.



(B) (mm)	Diameter (D) (mm)	Torque (Nm)
9	10–18	2–2.5
9	Other ranges	3–3.5 (no max stated)
12	All ranges	5–5.5 (6.5 max)

Hose clamps



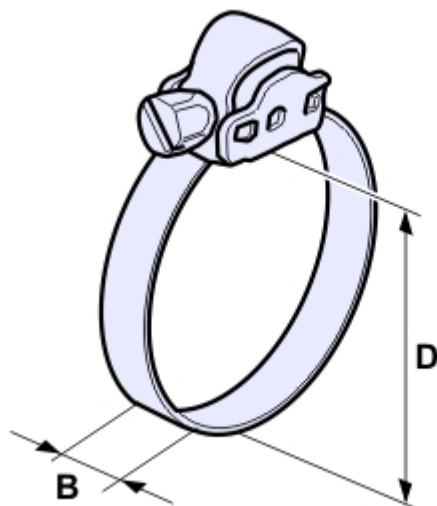


Diameter D (mm)	Torque (Nm)
10–19	2.3 ± 0.3
19*–30	3 ± 0.5
30*–48	4 ± 0.6
48*–160	5.5 ± 0.8

Note: * Value not included on the interval.

Hose clamp with spring function

Note: Old assortment.



- The tightening machine ideal speed must be max 300 rpm.

(B) (mm)	Diameter (D) (mm)	Torque (Nm)
9	All ranges	3.5 ± 0.25 (no max stated)
14,8	Up to 50–70	5.5–8.5
14,8	from 60–80	6.5–8.5 (10 max)

Hose clamp with spring function, torque cap

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Note: Old assortment.



The tightening machine ideal speed must be of 300 ± 100 rpm.
Recommended tightening torque 3 ± 0.25 Nm (torque independent of the clamp diameter).
 The clamp must be tightened up to the nut head break.
 The clamp must not be reused.

Nipples and plugs

Caution

For eliminating the risk of damaging the gasket, it is very important to make sure that the nipple will not move when the tightening torque is applied to the nut which fixes it. Therefore the nipple must be hold to avoid its movement. Only after this procedure the torque must be applied to the nipple fastening nut.

Thread	Tightening torque (Nm)			
	Nipples and plugs with O-rings	Nipples and plugs with NPTF threads	Angular nipples with tapered thread	
			Seal	Chemical lock
M10 x 1.0	15 ± 3		10	10
M12 x 1.5	25 ± 5		15	10
M16 x 1.5	$40 + 8 / - 16$		25	10
M22 x 1.5	40 ± 8		25	10
1/8"-27		10 ± 1.5		
1/4"-18		20 ± 3		
3/8"-18		30 ± 5		
3/4"-14		50 ± 7		