

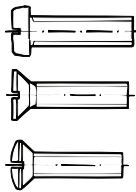
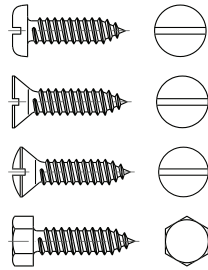
## Overview of standards conversion DIN → ISO: Thread screws and tapping screws

ISO standards for thread screws and tapping screws include the following changes different to DIN standards:

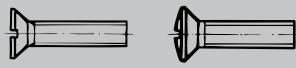
- new countersunk angle for tapping screws with countersunk/raised countersunk head = 90° according to DIN 66 / ISO 7721 (previously 80°)
- tapping screws: cancellation of diameter ST 3.9
- partial changes to the head dimensions

The tables show the standard numbers change DIN : ISO (Tab. 10) and head dimension changes DIN : ISO (Tab. 11-13)


**Table 10: Standard numbers change DIN : ISO**

Article group	DIN	ISO	The most important changes
	<b>84</b>	<b>1207</b>	no serious changes
	<b>85</b>	<b>1580</b>	no serious changes
	<b>963</b>	<b>2009</b>	minor differences in head height and head diameter (see Table 11)
	<b>964</b>	<b>2010</b>	
	<b>965</b>	<b>7046-1, -2</b>	
	<b>966</b>	<b>7047</b>	no serious changes
	<b>7985</b>	<b>7045</b>	no serious changes
	<b>7971</b>	<b>1481</b>	no serious changes
	<b>7972</b>	<b>1482</b>	changed countersunk angle (DIN = 80° : ISO = 90°)
	<b>7973</b>	<b>1483</b>	minor differences in head height and head diameter (see Table 12)
	<b>7976</b>	<b>1479</b>	minor differences in the head height – no risk of being replaced (see Table 13)
	<b>7981</b>	<b>7049</b>	no serious changes
	<b>7982</b>	<b>7050</b>	changed countersunk angle (DIN = 80° : ISO = 90°)
	<b>7983</b>	<b>7051</b>	minor differences in head height and head diameter (see Table 12)

**Table 11: Slotted and cross recessed countersunk head screws with metric thread**

		Metric screws ISO 2009, 2010, 7046, 7047 DIN 963, 964, 965, 966									
											
	Thread	M 1.6	M 2	M 2.5	M 3	M 3.5	M 4	M 5	M 6	M 8	M 10
max. Diameter of head	ISO (new)	3	3.8	4.7	5.5	7.3	8.4	9.3	11.3	15.8	18.3
	DIN (old)	3	3.8	4.7	5.6	6.5	7.5	9.2	11	14.5	18
max. Head height	ISO (new)	1	1.2	1.5	1.65	2.35	2.7	2.7	3.3	4.65	5
	DIN (old)	0.96	1.2	1.5	1.65	1.93	2.2	2.5	3	4	5

**Table 12: Countersunk head tapping screws**

		Tapping screws ISO 1482, 1483, 7050, 7051 (ϕ = 90°) DIN 7972, 7973, 7982, 7983 (ϕ = 80°)									
											
	Thread	ST 2.2	ST 2.9	ST 3.5	ST 3.9	ST 4.2	ST 4.8	ST 5.5	ST 6.3	ST 8	ST 9.5
max. Diameter of head	ISO (new)	3.8	5.5	7.3	–	8.4	9.3	10.3	11.3	15.8	18.3
	DIN (old)	4.3	5.5	6.8	7.5	8.1	9.5	10.8	12.4	–	–
max. Head height	ISO (new)	1.1	1.7	2.35	–	2.6	2.8	3	3.15	4.65	5.25
	DIN (old)	1.3	1.7	2.1	2.3	2.5	3	3.4	3.8	–	–


### Note on countersunk head screws with metric threading

When countersinking according to ISO 15065 (for ISO countersunk heads) screws can also be used according to DIN 963 – 966.

These merely lie a little deeper in the countersink.

If the countersink is executed according to the withdrawn DIN 74-1:1980, a protrusion may, under certain circumstances, be visible when using ISO countersunk heads above the component part (especially with the diameters M3.5, M4 and M8).

**Table 13: Hexagon head tapping screws**

		Tapping screws ISO 1479 DIN 7976									
											
	Thread	ST 2.2	ST 2.9	ST 3.5	(ST 3.9)	ST 4.2	ST 4.8	(ST 5.5)	ST 6.3	ST 8	ST 9.5
max. head height	ISO (new)	1.6	2.3	2.6	–	3	3.8	4.1	4.7	6	7.5
	DIN (old)	1.42	1.62	2.42	2.42	2.92	3.12	4.15	4.95	5.95	–