

D ISO-Passung
Einheitswellen

E ISO system of
standardised fits for shafts

I Tolleranze di accoppiamenti
ISO, sistema albero base

Bohrungen Holes Fori	Nennmaß über... bis ... mm / Nominal dimension over ... to ... mm / Dimensione nominale oltre .. fino a .. mm																		
	1	3	6	10	14	18	24	30	40	50	65	80	100	120	140	160	180	200	225
	3	6	10	14	18	24	30	40	50	65	80	100	120	140	160	180	200	225	250
Welle / Shaft / Codolo h5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
P 6	-6	-9	-12	-15	-18	-21	-26	-30	-36	-41	-48	-58	-66	-77	-85	-93	-105	-113	-123
N 6	-4	-5	-7	-9	-11	-12	-14	-16	-20	-22	-24	-28	-33	-38	-45	-51	-59	-67	-77
M 6	-2	-1	-3	-4	-4	-4	-5	-6	-8	-9	-10	-12	-14	-16	-18	-20	-22	-24	-27
J 6	+2	+5	+5	+6	+8	+10	+13	+16	+18	+22	+24	+28	+33	+38	+45	+51	+59	+67	+77
H 6	+6	+8	+9	+11	+13	+16	+19	+22	+25	+29	+33	+38	+45	+51	+59	+67	+77	+85	+93
Welle / Shaft / Codolo h 6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S 7	-14	-15	-17	-21	-27	-34	-42	-48	-58	-66	-77	-85	-93	-105	-113	-123	-133	-151	-169
R 7	-10	-11	-13	-16	-20	-25	-30	-32	-38	-41	-48	-50	-53	-60	-63	-67	-73	-76	-88
N 7	-4	-4	-4	-5	-7	-8	-9	-10	-12	-14	-16	-18	-20	-22	-24	-27	-30	-33	-37
M 7	-2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
K 7	0	+3	+5	+6	+6	+7	+9	+10	+12	+14	+16	+18	+20	+22	+24	+27	+30	+33	+37
J 7	+4	+6	+8	+10	+12	+14	+16	+18	+22	+24	+28	+33	+38	+45	+51	+59	+67	+77	+85
H 7	+10	+12	+15	+18	+21	+25	+30	+32	+38	+41	+48	+50	+53	+60	+63	+67	+73	+76	+88
G 7	+12	+16	+20	+24	+28	+34	+40	+47	+54	+61	+67	+73	+76	+88	+93	+105	+113	+123	+133
F 7	+16	+22	+28	+34	+41	+50	+60	+71	+83	+96	+110	+123	+133	+151	+169	+189	+213	+240	+270
Welle / Shaft / Codolo h 9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H 8	+14	+18	+22	+27	+33	+39	+46	+57	+63	+72	+80	+90	+100	+110	+120	+130	+140	+150	+160
H 11	+60	+75	+90	+110	+130	+160	+190	+220	+250	+290	+330	+380	+450	+510	+590	+670	+770	+850	+930
F 8	+20	+28	+35	+43	+53	+64	+76	+90	+106	+122	+140	+159	+179	+200	+220	+240	+260	+280	+300
E 9	+39	+50	+61	+75	+92	+112	+134	+159	+185	+215	+240	+270	+300	+330	+360	+390	+420	+450	+480
D 10	+60	+78	+98	+120	+149	+180	+220	+260	+305	+355	+400	+450	+500	+550	+600	+650	+700	+750	+800
C 11	+120	+145	+170	+205	+240	+280	+330	+390	+450	+520	+590	+670	+750	+830	+910	+990	+1070	+1150	+1230
Welle / Shaft / Codolo h 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H 11	+60	+75	+90	+110	+130	+160	+190	+220	+250	+290	+330	+380	+450	+510	+590	+670	+770	+850	+930
D 11	+80	+105	+130	+160	+195	+240	+290	+340	+395	+460	+520	+590	+670	+750	+830	+910	+990	+1070	+1150
C 11	+120	+145	+170	+205	+240	+280	+330	+390	+450	+520	+590	+670	+750	+830	+910	+990	+1070	+1150	+1230
A 11	+330	+345	+370	+400	+430	+470	+480	+530	+550	+600	+630	+670	+710	+770	+830	+890	+950	+1030	+1110
	+270	+270	+280	+290	+300	+310	+320	+340	+360	+380	+410	+460	+520	+580	+660	+740	+820	+900	+980

ISO Passung Einheitswellen
ISO system of standardised fits for shafts
Tolleranze di accoppiamenti ISO, Sistema albero base

Übermaßpassung (Presspassung)
Interference fit (press fit)
Accoppiamento a interferenza [stabile]

Übergangspassung
Transition fit
Accoppiamento intermedio

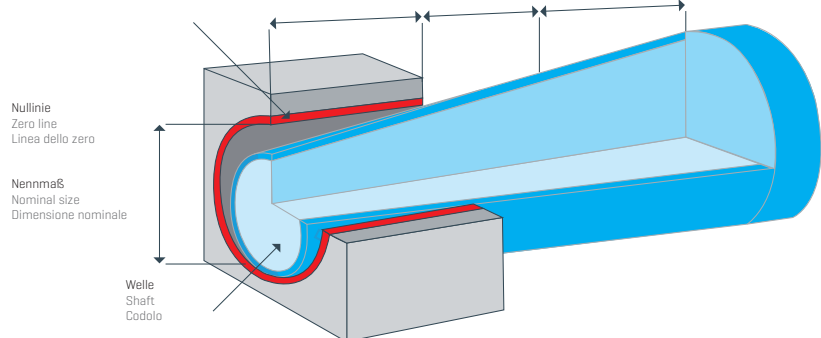
Spielpassung
Clearance fit
Accoppiamento mobile

Bohrungstoleranz H
Hole tolerance H
Tolleranza di fori h

Spielpassungen
Clearance fit
Accoppiamento mobile

Übergangspassungen
Transition fit
Accoppiamento intermedio

Übermaßpassungen
Interference fit
Accoppiamento a interferenza



D ISO-Passung
Einheitsbohrung

E ISO system of
standardised fits for hole

I Tolleranze di accoppiamenti
ISO, Sistema foro base

Wellen Shaft Codolo	Nennmaß über... bis ... mm / Nominal dimension over ... to ... mm / Dimensione nominale oltre .. fino a .. mm																			
	1 3	3 6	6 10	10 14	14 18	18 24	24 30	30 40	40 50	50 65	65 80	80 100	100 120	120 140	140 160	160 180	180 200	200 225	225 250	
Bohrung / Hole / Fori H 6	+6 0	+8 0	+9 0	+11 0	+13 0	+16 0	+19 0	+22 0	+25 0	+29 0	+34 0	+40 0	+46 0	+52 0	+59 0	+67 0	+76 0	+86 0	+97 0	
p 5	+10 +6	+17 +12	+21 +15	+26 +18	+31 +22	+37 +26	+45 +32	+52 +37	+61 +43	+70 +50	+80 +55	+91 +62	+103 +71	+117 +82	+132 +93	+148 +106	+166 +122	+185 +139	+206 +159	+229 +184
n 5	+8 +4	+13 +8	+16 +10	+20 +12	+24 +15	+28 +17	+33 +20	+38 +23	+45 +27	+51 +31	+58 +36	+66 +41	+75 +49	+85 +58	+96 +66	+108 +77	+121 +88	+136 +100	+152 +113	+170 +130
k 6	+6 0	+9 +1	+10 +1	+12 +1	+15 +2	+18 +2	+21 +2	+25 +3	+28 +3	+33 +4	+38 +5	+44 +6	+51 +7	+59 +8	+67 +9	+76 +10	+86 +11	+97 +12	+109 +13	+122 +14
j 6	+4 -2	+6 -2	+7 -2	+8 -3	+9 -4	+11 -5	+12 -7	+13 -9	+14 -11	+16 -13	+18 -15	+20 -17	+23 -19	+27 -21	+31 -23	+36 -25	+41 -27	+47 -29	+54 -31	+61 -33
h 5	0 -4	0 -5	0 -6	0 -8	0 -9	0 -11	0 -13	0 -15	0 -18	0 -20	0 -22	0 -25	0 -27	0 -30	0 -33	0 -36	0 -39	0 -42	0 -45	0 -48
Bohrung / Hole / Fori H 7	+10 0	+12 0	+15 0	+18 0	+21 0	+25 0	+30 0	+35 0	+40 0	+46 0	+52 0	+59 0	+67 0	+76 0	+86 0	+97 0	+109 0	+122 0	+136 0	+152 0
s 6	+20 +14	+27 +19	+32 +23	+39 +28	+48 +35	+59 +43	+72 +59	+87 +71	+103 +82	+121 +97	+141 +113	+163 +131	+188 +152	+216 +175	+247 +199	+281 +228	+319 +257	+361 +290	+407 +325	+457 +365
r 6	+16 +10	+23 +15	+28 +18	+34 +23	+41 +28	+50 +34	+60 +41	+72 +51	+87 +63	+103 +77	+121 +93	+141 +106	+163 +122	+188 +141	+216 +166	+247 +193	+281 +222	+319 +253	+361 +288	+407 +325
n 6	+10 +4	+16 +8	+19 +10	+23 +12	+28 +15	+33 +17	+39 +20	+45 +23	+52 +27	+59 +31	+67 +36	+76 +41	+86 +49	+97 +58	+109 +66	+122 +77	+136 +88	+152 +100	+170 +113	+190 +130
m 6	+8 +2	+12 +4	+15 +6	+18 +7	+21 +8	+25 +9	+30 +11	+35 +13	+40 +15	+46 +17	+52 +19	+59 +21	+67 +23	+76 +25	+86 +27	+97 +29	+109 +31	+122 +33	+136 +35	+152 +37
k 6	+6 0	+9 +1	+10 +1	+12 +1	+15 +2	+18 +2	+21 +2	+25 +3	+28 +3	+33 +4	+38 +5	+44 +6	+51 +7	+59 +8	+67 +9	+76 +10	+86 +11	+97 +12	+109 +13	+122 +14
j 6	+4 -2	+6 -2	+7 -2	+8 -3	+9 -4	+11 -5	+12 -7	+13 -9	+14 -11	+16 -13	+18 -15	+20 -17	+23 -19	+27 -21	+31 -23	+36 -25	+41 -27	+47 -29	+54 -31	+61 -33
h 6	0 -6	0 -8	0 -9	0 -11	0 -13	0 -16	0 -19	0 -22	0 -25	0 -27	0 -30	0 -33	0 -36	0 -39	0 -42	0 -45	0 -48	0 -51	0 -54	0 -57
g 6	-2 -8	-4 -12	-5 -14	-6 -17	-7 -20	-9 -25	-10 -29	-12 -34	-14 -39	-15 -44	-17 -50	-19 -56	-21 -62	-24 -69	-27 -76	-30 -83	-34 -91	-38 -99	-43 -107	-48 -115
r 7	-6 -16	-10 -22	-13 -28	-16 -34	-20 -41	-25 -50	-30 -60	-36 -71	-43 -83	-50 -96	-58 -109	-67 -122	-77 -136	-87 -152	-98 -166	-109 -180	-121 -193	-136 -206	-152 -220	-170 -234
Bohrung / Hole / Fori H 8	+14 0	+18 0	+22 0	+27 0	+33 0	+39 0	+46 0	+54 0	+63 0	+72 0	+82 0	+93 0	+105 0	+118 0	+132 0	+147 0	+163 0	+180 0	+200 0	+222 0
x 8	+34 +20	+46 +28	+56 +34	+67 +40	+79 +45	+93 +54	+109 +64	+127 +70	+147 +87	+169 +97	+193 +102	+220 +110	+250 +120	+283 +130	+319 +140	+359 +150	+403 +160	+451 +170	+503 +180	+559 +190
u 8	+32 +18	+41 +23	+50 +28	+60 +33	+71 +41	+84 +51	+99 +60	+117 +70	+137 +87	+159 +102	+183 +110	+210 +120	+240 +130	+273 +140	+309 +150	+349 +160	+393 +170	+441 +180	+493 +190	+550 +200
h 9	0 -25	0 -30	0 -36	0 -43	0 -52	0 -62	0 -74	0 -87	0 -100	0 -115	0 -130	0 -147	0 -163	0 -180	0 -198	0 -216	0 -234	0 -253	0 -273	0 -293
f 7	-6 -16	-10 -22	-13 -28	-16 -34	-20 -41	-25 -50	-30 -60	-36 -71	-43 -83	-50 -96	-58 -109	-67 -122	-77 -136	-87 -152	-98 -166	-109 -180	-121 -193	-136 -206	-152 -220	-170 -234
d 9	-20 -45	-30 -60	-40 -76	-50 -93	-65 -117	-80 -142	-100 -174	-120 -207	-145 -245	-170 -285	-198 -305	-228 -335	-260 -375	-293 -415	-329 -455	-369 -495	-413 -535	-461 -585	-513 -645	-567 -705
Bohrung / Hole / Fori H 11	+60 0	+75 0	+90 0	+110 0	+130 0	+160 0	+190 0	+220 0	+250 0	+290 0	+340 0	+400 0	+460 0	+520 0	+590 0	+670 0	+760 0	+860 0	+970 0	+1090 0
h 9	0 -25	0 -30	0 -36	0 -43	0 -52	0 -62	0 -74	0 -87	0 -100	0 -115	0 -130	0 -147	0 -163	0 -180	0 -198	0 -216	0 -234	0 -253	0 -273	0 -293
h 11	0 -60	0 -75	0 -90	0 -110	0 -130	0 -160	0 -190	0 -220	0 -250	0 -290	0 -340	0 -400	0 -460	0 -520	0 -590	0 -670	0 -760	0 -860	0 -970	0 -1090
d 9	-20 -45	-30 -60	-40 -76	-50 -93	-65 -117	-80 -142	-100 -174	-120 -207	-145 -245	-170 -285	-198 -305	-228 -335	-260 -375	-293 -415	-329 -455	-369 -495	-413 -535	-461 -585	-513 -645	-567 -705
c 11	-60 -120	-70 -145	-80 -170	-95 -205	-110 -240	-120 -280	-130 -330	-140 -390	-150 -450	-170 -510	-180 -570	-190 -630	-200 -690	-210 -750	-230 -810	-240 -870	-260 -930	-280 -1000	-320 -1070	-370 -1140
a 11	-270 -330	-270 -345	-280 -370	-290 -400	-300 -430	-310 -470	-320 -510	-340 -550	-360 -600	-380 -650	-410 -700	-440 -750	-460 -800	-480 -850	-520 -900	-580 -950	-660 -1000	-740 -1050	-820 -1100	-920 -1150

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Transition fit
Accoppiamento intermedio

Spielpassung
Clearance fit
Accoppiamento mobile

Wellentoleranz h
Shaft tolerance h
Tolleranza di foratura h

Spielpassungen
Clearance fit
Accoppiamento mobile

Übergangspassungen
Transition fit
Accoppiamento intermedio

Übermaßpassungen
Interference fit
Accoppiamento a interferenza

