

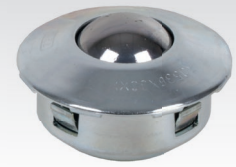
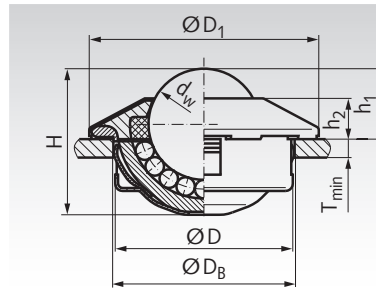
Ball Transfer Units 310 / 320, with Fastening Element

Material Type 310: Housing: Steel, zinc-plated.
Ball cup: Steel, case hardened.
Ball: Steel, hardened.

Material Type 320: Housing: Steel, zinc-plated.
Ball cup: Steel, case hardened.
Ball: Stainless steel, hardened,
Material No. 1.3541.

Premium ball transfer unit, for low noise pollution and long service life. Due to the special shape of the top part, an assembly plug should be used, see page 666. With felt seal. Conveying speed max. 2m/sec. Temperature range -30°C to +100°C.

Ordering Details: e.g.: Product No. 654 310 15, Ball Transfer Unit 310 Size 15



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Other sizes and versions on request.

Product No. Type 310	Size dw mm	Load Rating N	D mm	D ₁ mm	D _B mm	H mm	h ₁ mm	h ₂ mm	T _{min} mm	Weight kg	Product No. Assembly Plug*
654 310 15	15	500	24 ^{-0,13}	31	24 ^{+0,5}	20,0	9,5 ^{+0,2}	5,5	1,5	0,044	654 300 15
654 310 22	22	1300	36 ^{-0,16}	45	36 ^{+0,8}	28,6	9,8 ^{+0,2}	6,2	2,0	0,146	654 300 22
654 310 30	30	2500	45 ^{-0,25}	55	45 ^{+1,0}	37,2	13,8 ^{+0,3}	8,2	2,5	0,290	654 300 30

Product No. Type 320	Size dw mm	Load Rating N	D mm	D ₁ mm	D _B mm	H mm	h ₁ mm	h ₂ mm	T _{min} mm	Weight kg	Product No. Assembly Plug*
654 320 15	15	370	24 ^{-0,13}	31	24 ^{+0,5}	20,0	9,5 ^{+0,2}	5,5	1,5	0,044	654 300 15
654 320 22	22	970	36 ^{-0,16}	45	36 ^{+0,8}	28,6	9,8 ^{+0,2}	6,2	2,0	0,146	654 300 22
654 320 30	30	1900	45 ^{-0,25}	55	45 ^{+1,0}	37,2	13,8 ^{+0,3}	8,2	2,5	0,290	654 300 30

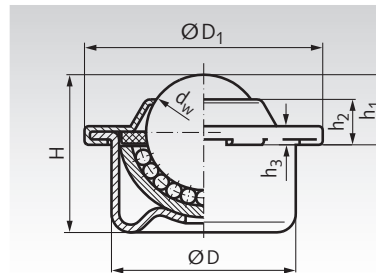
* Assembly plug see page 666.

Ball Transfer Units 330 / 340 / 350, Steel-Sheet Housing

Material Type 330: Housing: Steel, zinc-plated.
Ball cup: Steel, case hardened.
Ball: Steel, hardened.

Material Type 340: Housing: Steel, zinc-plated.
Ball cup: Steel, case hardened.
Ball: Stainless steel, hardened,
Material No. 1.3541.

Material Type 350: Housing and other parts: Stainless steel,
Material No. 1.4301.
Ball cup: Stainless steel, Material
No. 1.4301, hardened.
Ball: Stainless steel, hardened,
Material No. 1.3541.



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A Bosch Company

Other sizes and versions on request.

Premium ball transfer unit, for low noise pollution and long service life. With felt seal. Conveying speed max. 2m/sec. Tolerance rings see page 666. Temperature range -30°C to +100°C

Ordering Details: e.g.: Product No. 654 330 08, Ball Transfer Unit 330 Size 08

Product No. Type 330	Size dw mm	Load Rating N	D mm	D ₁ mm	H mm	h ₁ mm	h ₂ mm	h ₃ mm	Weight kg	Product No. Seating Bore Tolerance Ring*
654 330 08	8	130	12,6 ^{+0,055}	17	11,2	4,8 ^{+0,015}	3,2	1,9	0,007	654 390 08 13,87 ^{+0,15}
654 330 12	12	250	18 ^{+0,055}	23,3	15,4	7,4 ^{+0,015}	4,4	2,1	0,018	654 390 12 19,70 ^{+0,2}
654 330 15	15	500	24 ^{+0,065}	31	21,5	9,5 ^{+0,2}	6,1	2,5	0,038	654 390 15 25,7 ^{+0,2}
654 330 22	22	1300	36 ^{+0,080}	45	29,5	9,8 ^{+0,2}	5,7	2,9	0,132	654 390 22 37,7 ^{+0,2}
654 330 30	30	2500	45 ^{+0,080}	55	37,5	13,8 ^{+0,3}	7,9	3,7	0,265	654 390 30 46,7 ^{+0,2}
654 330 45	45	6000	62 ^{+0,095}	75	53,7	19,0 ^{+0,4}	10,3	4,2	0,720	654 390 45 64,1 ^{+0,3}

Product No. Type 340	Product No. Type 350	Size dw mm	Load Rating N	D mm	D ₁ mm	H mm	h ₁ mm	h ₂ mm	h ₃ mm	Weight kg	Product No. Seating Bore Tolerance Ring*
654 340 08	654 350 08	8	100	12,6 ^{+0,055}	17	11,2	4,8 ^{+0,015}	3,2	1,9	0,007	654 390 08 13,87 ^{+0,15}
654 340 12	654 350 12	12	180	18 ^{+0,055}	23,3	15,4	7,4 ^{+0,015}	4,4	2,1	0,018	654 390 12 19,70 ^{+0,2}
654 340 15	654 350 15	15	370	24 ^{+0,065}	31	21,5	9,5 ^{+0,2}	6,1	2,5	0,038	654 390 15 25,7 ^{+0,2}
654 340 22	654 350 22	22	970	36 ^{+0,080}	45	29,5	9,8 ^{+0,2}	5,7	2,9	0,132	654 390 22 37,7 ^{+0,2}
654 340 30	654 350 30	30	1900	45 ^{+0,080}	55	37,5	13,8 ^{+0,3}	7,9	3,7	0,265	654 390 30 46,7 ^{+0,2}
654 340 45	-	45	6000	62 ^{+0,095}	75	53,7	19,0 ^{+0,4}	10,3	4,2	0,720	654 390 45 64,1 ^{+0,3}

* Tolerance ring see page 666.

Note: Due to unevenness of the running surface, there are often only three rollers carrying the weight. Therefore the chosen load rating should equal at least one third of the load. Max. distance of ball transfer units = edge length of the object divided by 2.5.