

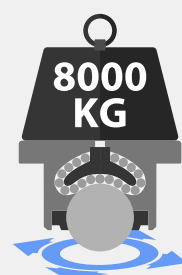


Felt seal
9000 Series only

Lubricant
Mobil Vactra 1 Oil

A
& **Standard**
Single Drain
Channel

Z & **SS**
2 x Drain
Channels

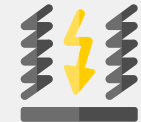


8000 KG

Maximum
load rating
unaffected
at any
orientation



Low friction
1 : 0,005



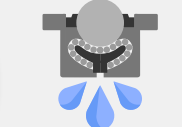
High Shock
Resistance



Temperature
-50/260°C



Speed
2m/sec



Drain / Debris
Channels
9000 Series only

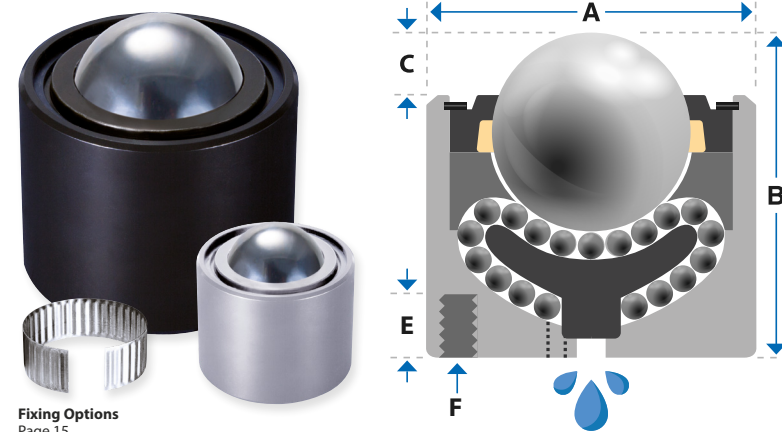


User
Serviceable
9000 Series only



Precision
Machined
Construction

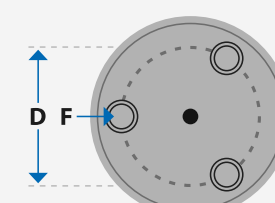
80 & 90 Series - PLAIN FIT



Fixing Options
Page 15

8020, 8030 & 8040 only

PART	D Ø	E (X3)	F X PITCH
8020	16	6	M4 x 0.7
8030	20	6	M5 x 0.8
8040	26	8	M6 x 1.0



PART	LOAD (kg)	BALL Ø (mm)	A	B	C
8000	50	12.7	20	20	3.8
8001	50	12.7	20.6	19.1	3.8
8010	50	12.7	22.2	22.1	3.8
8020	90	15.8	24	29	5
8030	125	19.1	30	34	6
8040	180	25.4	38	45	8
9020	225	25.4	44	41.3	5.6
9021	225	25.4	44.5	41.3	5.6
9022	225	25.4	44.5	41.3	7.1
9030	385	25.4	50	44.5	6.4
9031	385	25.4	50.8	44.5	6.4
9040	1100	38.1	60	61.5	12.7
9041	1100	38.1	60.3	61.5	12.7
9042	1100	38.1	60.3	60.3	12.7
9050	2200	50.8	100	95	14.3
9051	2200	50.8	101.6	98.4	14.3
9060	4550	76.2	160	145	21
9070	8000	101.6	228	190	38

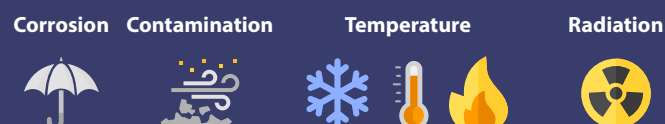
✱ 8001 - spigot 3.2mm x 8mm Ø
✪ Further 1.5mm @ 16.2mm Ø

STANDARD MATERIALS:

AISI 52100 high chrome steel balls & internal load bearing components. "Anti-Oxide" electrophoretic coating (>350 hours ISO salt resistance) of precision machined steel housing.

Solve specific application requirements by upgrading standard materials.

Select option below by adding suffix:



STAINLESS STEEL BALLS UPGRADE

A AISI 440C stainless steel balls, internal components as standard. "Anti-Oxide" housing. Load rating as standard & remains unaffected.

ARDUOUS CONDITIONS UPGRADE

Z AISI440C stainless steel balls & load-bearing internal components. "Anti-Oxide" outer housing. Load rating as standard & remains unaffected.

ALL STAINLESS STEEL UPGRADE

SS AISI440C stainless steel balls & load-bearing internal components. AISI 304 outer housing. Load rating as standard & remains unaffected.

PHENOLIC RESIN BALL OPTION

PB Minimise marking of delicate surfaces. Friction, wear & temperature properties change - consult us if in doubt. Reduced load ratings indicated.

BALL Ø (mm)	12.7	25.4	38.1+
PB LOAD (kg)	10	30	38

PART	LOAD (kg)	BALL Ø (mm)	A	B	C	D	E	F
8100	50	12.7	20	19.1	3.8	16.1	-	M8 x 1.25
8101	50	12.7	20.6	19.1	3.8	28.7	-	M8 x 1.25
8102	90	12.7	20.6	19.1	3.8	28.7	-	5/16" UNF
8112	50	12.7	22.2	22.2	3.8	25.4	-	5/16" UNF
8120	90	15.8	24AF/27.7Ø	26	5	20	-	M12 x 1.75
8130	125	19.1	30AF/34.9Ø	31	6	25	-	M16 x 2.0
8140	180	25.4	38AF/43.9Ø	42	8	30	-	M20 x 2.5
9120	225	25.4	44	48.3	5.6	25	-	M12 x 1.75
9123	225	25.4	44	47.3	5.6	25	6	M12 x 1.75
9124	225	25.4	44.5	47.3	7.1	25.4	6	1/2" UNF
9130	385	25.4	50	51.3	6.4	25	-	M12 x 1.75
9133	385	25.4	50	50.5	6.4	25	6	M12 x 1.75
9134	385	25.4	50.8	50.5	6.4	25.4	6	1/2" UNF
9135	385	25.4	50.8	42	6.4	60	10	1" UNF
9140	1100	38.1	60	73.5	12.7	40	-	M20 x 2.5
9143	1100	38.1	60	71.5	12.7	40	10	M20 x 2.5
9144	1100	38.1	60.3	71.5	12.7	38.1	10	3/4" UNF
9145	1100	38.1	60.3	60	12.7	75	6	1" UNF
9150	2200	50.8	100	105	14.3	54	-	M24 x 3.0
9153	2200	50.8	100	109	14.3	50	10.6	M24 x 3.0
9154	2200	50.8	101.6	109	14.3	50.8	10.6	1" UNF
9160	4550	76.2	160	145	21	57.2	-	1" UNF
9163	4550	76.2	160	145	21	100	15	M30 x 3.5

✪ Further 1.5mm @ 16.2mm Ø

81 & 91 Series units omit drain/debris channel - contact us if required

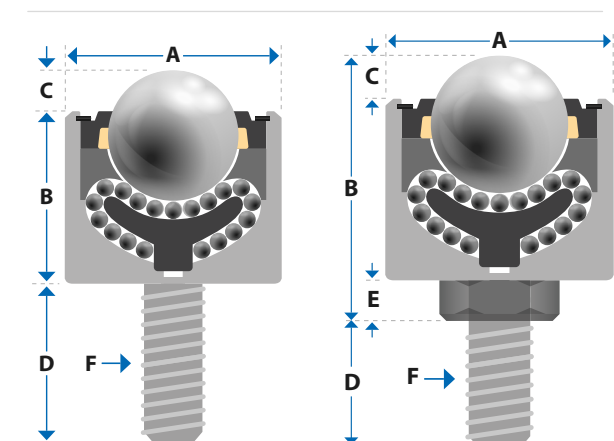
81 & 91 Series THREADED STUD



8120, 8130 & 8140
HEXAGON BODY

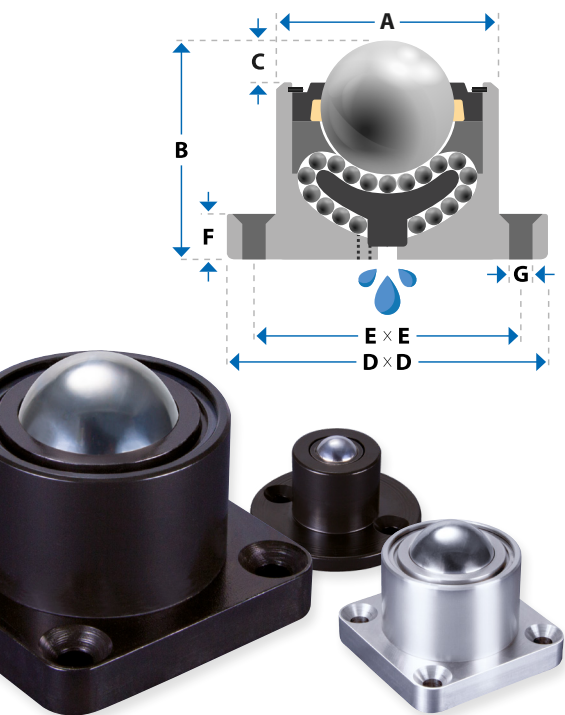
81 & 91 Series
ENDING 0, 1, 2 & 5

91 Series
ENDING 3 & 4



81 & 91 Series
ENDING 0, 1, 2 & 5 &
HEXAGON BODY

91 Series
ENDING 3 & 4



82 & 92 Series - FLANGE MOUNTED

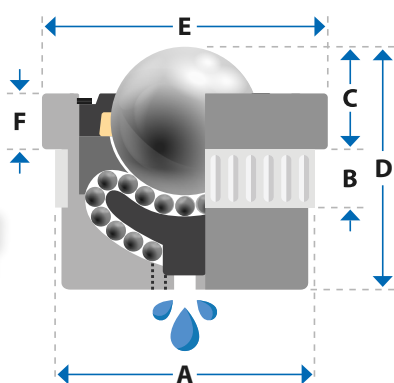
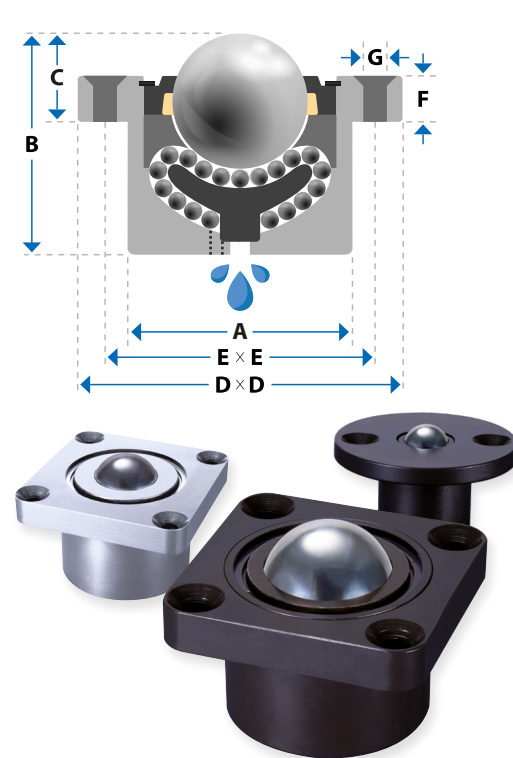
PART	LOAD (kg)	BALL Ø (mm)	A	B	C	DXDØ	EXE	F	GØ
8200	50	12.7	23.8	22.2	3.8 *	44.5	34.9	3.2	2 x 3.6
8210	50	12.7	23.8	22.2	3.8 *	47.7 x 32 +	34.9	2	2 x 4
8220	90	15.8	24	29	5	40	32	4	4 x 4.5
8230	125	19.1	30	34	6	50	40	5	4 x 5.5
8240	180	25.4	38	45	8	60	49	6	4 x 6.5
9220	225	25.4	44	41.3	5.6	57.2	44.5	4.8	4 x 6.1
9221	225	25.4	44.5	41.3	7.1	57.2	44.5	4.8	4 x 6.1
9230	385	25.4	50	44.5	6.4	76.2	57.9	6.4	4 x 8.1
9240	1100	38.1	60	61.5	12.7	76.2	57.9	12.7	4 x 8.1
9241	1100	38.1	60.3	60.3	12.7	76.2	57.9	12.7	4 x 8.1
9250	2200	50.8	100	98.4	14.3	127	101.6	9.5	4 x 11.1
9260	4550	76.2	160	145	21	175	145	15	4 x 13.1
9270	8000	101.6	228	190	38.1	235	190.5	25	4 x 16.1

● Circular flange
+ 8210 - Elliptical flange
* Further 1.5mm @ 16.2mm Ø
▶ Not countersunk

83 & 93 Series - FLANGE SOCKET MOUNTED

PART	LOAD (kg)	BALL Ø (mm)	A	B	C	DXDØ	EXE	F	GØ
8300	50	12.7	23.8	22.2	11.2	44.5	34.9	3.2	2 x 3.6
8310	50	12.7	23.8	22.2	7.9	47.7 x 32 +	34.9	2	2 x 4
8320	90	15.8	24	29	11	40	32	6	2 x 4.5 *
8330	125	19.1	30	34	13	50	40	7	2 x 5.5 *
8340	180	25.4	38	45	16	60	49	8	2 x 6.5 *
9320	225	25.4	44	41.3	10.3	57.2	44.5	4.8	4 x 6.1
9321	225	25.4	44.5	41.3	11.9	57.2	44.5	4.8	4 x 6.1
9330	385	25.4	50	44.5	12.7	76.2	57.9	6.4	4 x 8.1
9341	1100	38.1	60	60	25.4	76.2	57.9	12.7	4 x 8.1
9350	2200	50.8	100	95	33.3	127	101.6	19.1	4 x 11.1
9351	2200	50.8	101.6	98.4	36.5	127	101.6	22.2	4 x 11.1
9352	2200	50.8	109.5	98.4	33.3	127	101.6	19.1	4 x 10.3
9360	4550	76.2	160	145	36	175	145	15	4 x 13.1

● Circular flange
+ 8310 - Elliptical flange
* Counterbore
▶ Not countersunk



88 & 98 Series - TOLERANCE RING

PART	LOAD (kg)	BALL Ø (mm)	A	B	C	D	E	F
8810	50	12.7	22	12	6	21	24	2.4
9820	225	25.4	45 *	15	14	40	49	6.9
9830	385	25.4	50 *	16	15	44	55	8.6
9840	1100	38.1	65 *	20	25	60	70	12.3
9850	2200	50.8	100 *	24	30	95	110	15.7

* Bore Ø ISO H9 fit

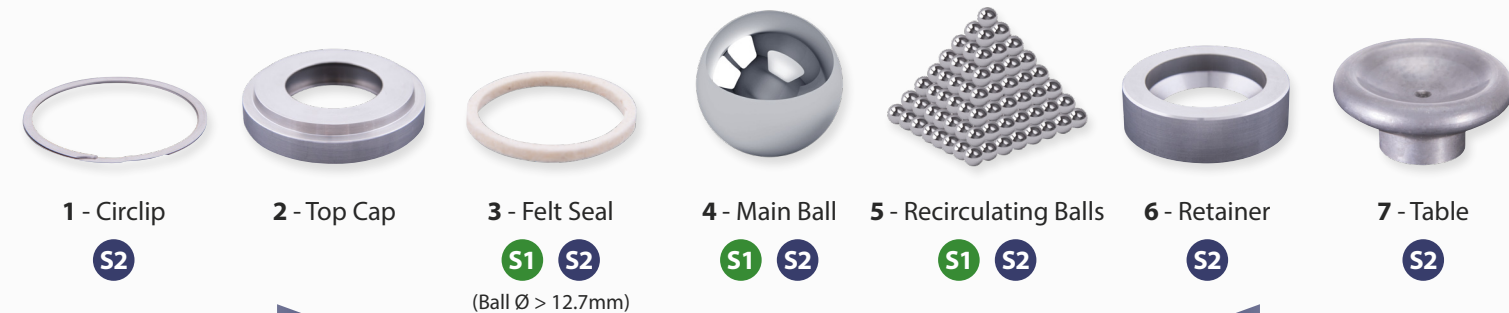
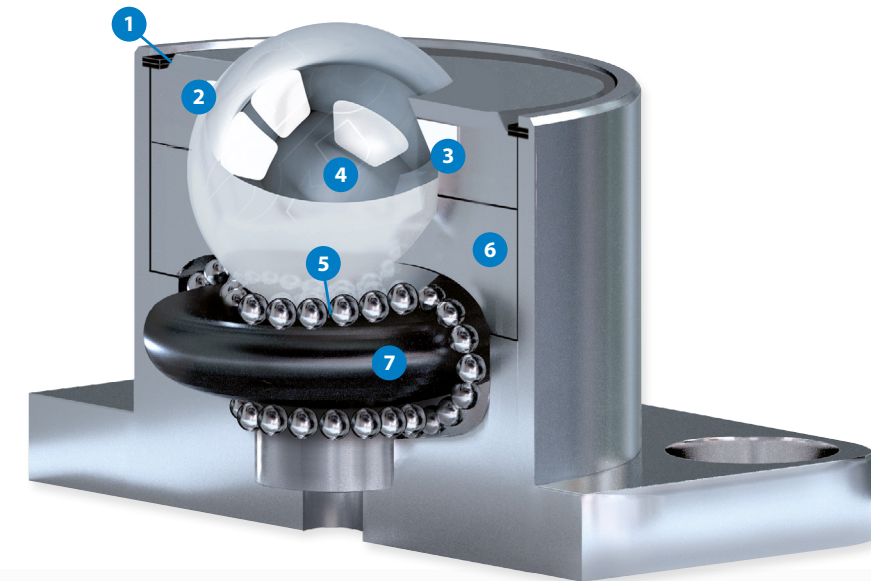
Spares & Service Kits

Omnitrack Heavy Duty 9000 series ball transfers - In continuous production since 1954.

Rapidly restore performance within minutes by using Service Kits S1 & S2 offering 2 levels of components & full overhaul instructions.

Factory reconditioning service for spring loaded & custom units as these may require special tooling for safe disassembly.

To order state original part number, any identification mark & Service Kit required eg S1-9241. If in doubt, contact us & we'll keep you rolling!



DISMANTLE

ASSEMBLE

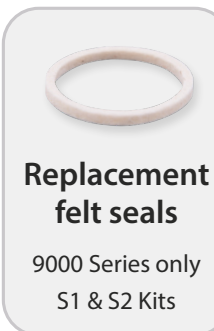


Anti-oxide Electrophoretic black finish

> 330 hours ISO salt resistance

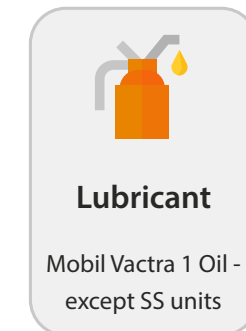
Stainless Steel Units

- natural finish



Replacement felt seals

9000 Series only
S1 & S2 Kits



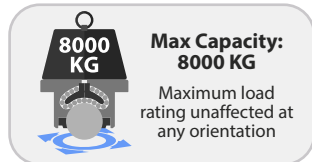
Lubricant

Mobil Vactra 1 Oil -
except SS units

Component materials & corrosion resistance

	1	2	3	4	5	6
SS 'All Stainless steel'	1	1	1	2	3	3
Z 'Arduous Conditions'	4	4	1	5	3	3
A 'Stainless steel balls, other materials as standard'	4	4	6	5	3	6
Standard Materials	4	4	6	5	6	6

- 1 AISI 304 stainless steel
- 2 AISI 302 stainless steel
- 3 AISI 440 stainless steel
- 4 AISI 1050 'Anti-oxide' finish
- 5 AISI 1070 carbon steel
- 6 AISI 52100 chrome steel



STANDARD MATERIALS: AISI 52100 high chrome steel balls & Anti-Oxide electrophoretic coated machined steel housing. Spring mechanism parts in carbon spring steel irrespective of material upgrade options below.

Solve specific application requirements by upgrading standard materials. **Select option below by adding suffix:**



	Corrosion	Contamination	Temperature	Radiation
A STAINLESS STEEL BALLS UPGRADE: AISI 440C stainless steel balls, internal components as standard. "Anti-Oxide" housing. Load rating as standard & remains unaffected.	✓	✓	✓	✓
Z ARDUOUS CONDITIONS UPGRADE: AISI440C stainless steel balls & load-bearing internal components. "Anti-Oxide" outer housing. Load ratings & spring values as standard & remain unaffected.	✓✓	✓✓	✓✓	✓
SS ALL STAINLESS STEEL UPGRADE: AISI440C stainless steel balls & load-bearing internal components. AISI 304 outer housing. Load ratings & spring values as standard & remain unaffected.	✓✓✓	✓✓✓	✓✓✓	✓✓✓

84 & 94 Series - EXTERNAL SPRING LOADED **A Z SS**

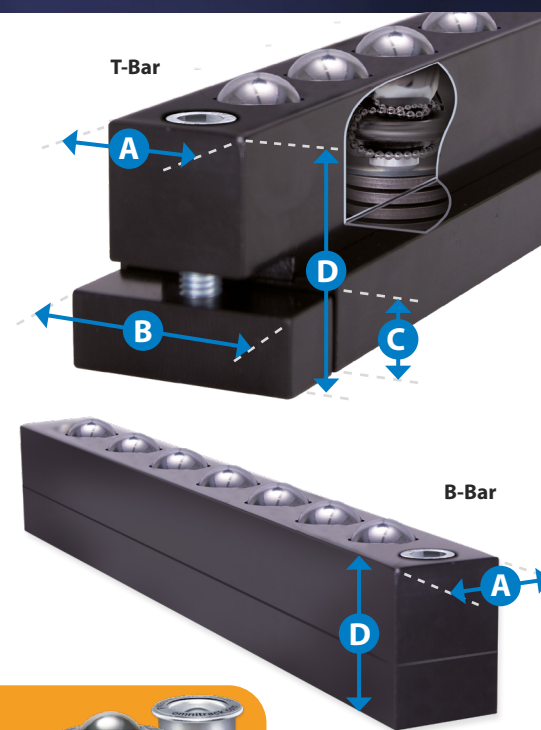
PART	BALL Ø (mm)	PRE-LOAD (kg)	MAX DE-FLECTION ADVISED	LOAD AT MAX DEFLECTION (kg)	A	B	C	D	E	FIXING HOLES (PCD)	G
8401	12.7	7	2	32	20.6	32.2	47.0	14.7	20	-	3.8 *
8402	12.7	14	2	35	20.6	31.8	47.0	14.7	20	-	3.8 *
8403	12.7	23	2	38	20.6	32.2	47.0	14.7	20	-	3.8 *
8404	12.7	23	2	38	20	32.2	47.0	14.7	20	-	3.8 *
8410	12.7	7	2	32	22.2	39	47.0	14.7	20	-	3.8 *
8411	12.7	14	2	35	22.2	38.6	47.0	14.7	20	-	3.8 *
8412	12.7	23	2	38	22.2	39	47.0	14.7	20	-	3.8 *
9420	25.4	7	5.4	136	44.5	61.9	77	19.2	31.8	3 x M5 (24.8)	5.6
9421	25.4	23	5	136	44.5	61.5	77	19.2	31.8	3 x M5 (24.8)	5.6
9422	25.4	45	4.4	136	44.5	60.9	77	19.2	31.8	3 x M5 (24.8)	5.6
9423	25.4	68	5.3	136	44.5	61.8	77	19.2	31.8	3 x M5 (24.8)	5.6
9424	25.4	89	2.7	204	44.5	61.5	77	19.2	31.8	3 x M5 (24.8)	5.6
9425	25.4	109	2.6	204	44	63	77	19.2	31.8	3 x M5 (24.8)	5.6
9430	25.4	91	7.7	331	50.8	80.8	95.3	19.2	38.1	3 x M6 (29)	6.4
9431	25.4	136	6.5	331	50.8	79.6	95.3	19.2	38.1	3 x M6 (29)	6.4
9432	25.4	181	5.8	331	50.8	80.5	95.3	19.2	38.1	3 x M6 (29)	6.4
9433	25.4	227	4.6	331	50.8	81	95.3	19.2	38.1	3 x M6 (29)	6.4
9440	38.1	227	10.5	960	60.3	115	162.1	35	59.4	3 x M6 (50.8)	12.7
9441	38.1	318	11.1	960	60.3	121	162.1	35	59.4	3 x M6 (50.8)	12.7
9442	38.1	454	11.1	960	60.3	129.2	162.1	35	59.4	3 x M6 (50.8)	12.7
9443	38.1	567	8.8	960	60.3	126.9	162.1	35	59.4	3 x M6 (50.8)	12.7
9444	38.1	680	9.2	960	60.3	146.3	189.7	35	59.4	3 x M6 (50.8)	12.7
9445	38.1	748	8.2	960	60.3	156.2	189.7	35	59.4	3 x M6 (50.8)	12.7
9450	50.8	764	2	1400	101.6	139.1	160.3	50.8	101.6	4 x M8 (76.2)	14.3
9451	50.8	764	5.3	1400	101.6	175.1	200.9	57	101.6	4 x M8 (76.2)	14.3
9452	50.8	1018	6	1400	101.6	177.4	200.9	57	101.6	4 x M8 (76.2)	14.3
9453	50.8	1273	5.9	1800	101.6	174.6	200.9	57	101.6	4 x M8 (76.2)	14.3
9454	50.8	1364	2.5	2000	101.6	137	158.4	50.8	101.6	4 x M8 (76.2)	14.3
9455	50.8	1527	5.7	2036	101.6	171.5	200.9	57	101.6	4 x M8 (76.2)	14.3

* Further 1.5mm @ 16.2mm Ø

T-Bars & B-Bars **A SS**

T & B bars incorporate Heavy Duty spring-loaded ball units for accurate positioning & effortless conveying of tools & dies on press & machine beds. Once positioned, clamp the tool & the springs allow the ball units to retract beneath the bed. Unclamp & the ball units will raise the tool above the bed ready to convey again. T-Bars feature an integral locking mechanism. B-Bars are locked using recessed M8 cap screw (requires drilling & tapping of the bed). Custom sizes available.

BAR	A	B	C	D	BAR LENGTH (mm)	SUPPORTS LOAD / BAR (kg)	DEFLECTION (mm)	LOAD AT MAX DEFLECTION (kg)	BALL / BAR
T-20	20	34	10	35	300	224	2.6	352	8
T-22	22	37	16	38	343	252	2.6	396	9
T-24	24	42	18	42	415	280	2.6	440	10
T-28	28	46	20	48	305	308	2.6	484	11
T-36	36	56	25	61	345	252	2.6	396	9
B-21	20.6	-	-	25.4	250	168	2.6	264	6
B-22	22.2	-	-	30.1	395	224	2.6	352	8
B-25	25.4	-	-	38.1	350	305	2.6	484	11



Spring Loaded Ball Transfers **A Z SS**

Omnitrack Heavy Duty spring loaded units are ideal where uneven track conditions or shock loading occurs. Internal springs offer full retraction of the ball within the housing. We can tailor spring pre-loads, deflections & characteristics to your requirements. Consider alternative material upgrade options to withstand severe operating environments.



85 & 95 Series - HOUSED SPRING LOADED **A Z SS**

PART	SUPPORTS LOAD (kg)	DEFLECTION (mm)	LOAD AT MAX DEFLECTION (kg)	BALL Ø (mm)	A	B
8500	23	2.2	38	12.7	25.4 *	25.4
8501	12	3.3	46	12.7	25.4 *	25.4
9520	91	4.8	188	25.4	50.8	55.5
9530	227	2.4	367	25.4	63.5	60.3
9540	450	10	960	38.1	69.9	114.3
9550	1000	6.1	2000	50.8	120	138.9

* 8mm wide (fine) knurl on outside Ø



Fixing Options Page 15

86 & 96 Series - FLANGE SOCKET SPRING LOADED **A Z SS**

PART	SUPPORTS LOAD (kg)	DEFLECTION (mm)	LOAD AT MAX DEFLECTION (kg)	BALL Ø (mm)	A	B	C	D	E (PCD)	F Counter-sunk
8601	12	3.3	46	12.7	25.4	25.4	5	50	36	2 x 5.1
9620	91	4.8	188	25.4	50.8	55.5	6	80	65	3 x 6.1
9630	227	2.4	367	25.4	63.5	60.3	6	100	80	3 x 8.1
9640	450	10	960	38.1	69.9	114.3	10	115	92	3 x 10.1
9650	1000	6.1	2000	50.8	120	138.9	12	165	140	3 x 10.1



87 & 97 Series - FLANGE MOUNTED SPRING LOADED **A Z SS**

PART	SUPPORTS LOAD (kg)	DEFLECTION (mm)	LOAD AT MAX DEFLECTION (kg)	BALL Ø (mm)	A	B	C	D	E (PCD)	F Counter-sunk
8701	12	3.3	46	12.7	25.4	25.4	5	50	36	2 x 5.1
9720	91	4.8	188	25.4	50.8	55.5	6	80	65	3 x 6.1
9730	227	2.4	367	25.4	63.5	60.3	6	100	80	3 x 8.1
9740	450	10	960	38.1	69.9	114.3	10	115	92	3 x 10.1
9750	1000	6.1	2000	50.8	120	138.9	12	165	140	3 x 10.1

