

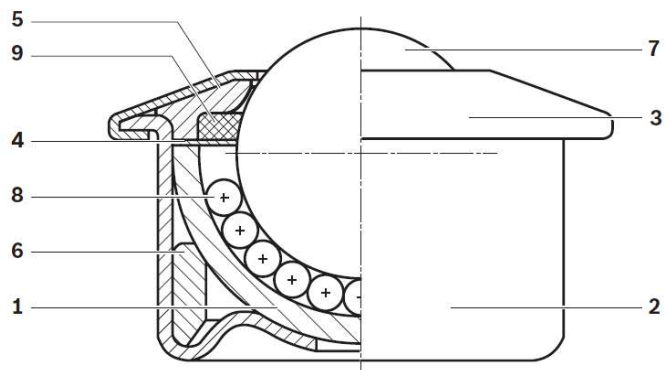
Multitrack

Concept Group



TECHNICAL INFORMATION

- 1 Ball cup
- 2 Housing
- 3 Cover
- 4 Ball retaining ring
- 5 Supporting ring
- 6 Reinforcing ring
- 7 Load ball
- 8 Supporting balls
- 9 Felt seal



CK

Technical data

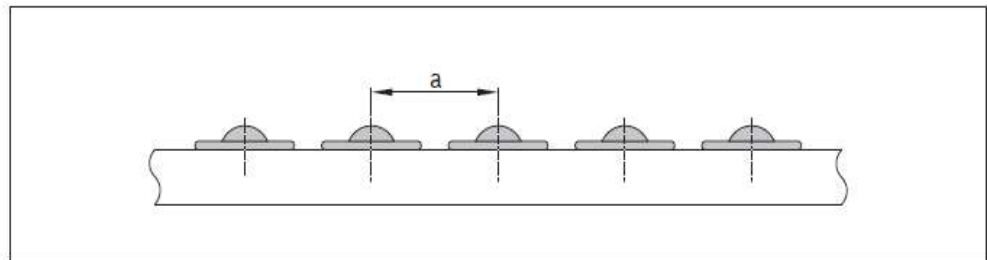
Arrangement of the Ball Transfer Units

How the Ball Transfer Units should be arranged depends on the undersurface of the conveyed article. For articles with a uniform, smooth undersurface, such as boxes and cases, the distance between the Ball Transfer Units is calculated simply by dividing the smallest edge length by 2.5.

Example:

Undersurface of the conveyed article = 500 x 1000 mm

$$\text{Distance between Ball Transfer Units } a = \frac{500 \text{ mm}}{2.5} = 200 \text{ mm}$$



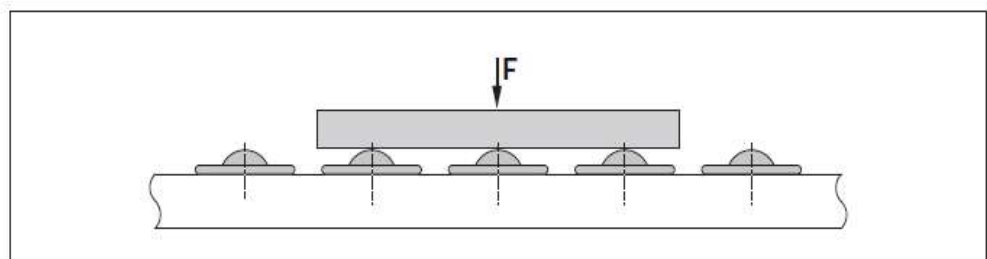
Determining the load for Ball Transfer Units

To determine the load for a Ball Transfer Unit, the weight of the conveyed article is divided by 3. If the load ball height tolerances are well-correlated, it is possible, depending on the nature of the conveyed article, to also perform the calculation based on the number of load-bearing Ball Transfer Units.

Example:

Mass = 3000 N

$$\text{Ball Transfer Unit load } F = \frac{3000 \text{ N}}{3} = 1000 \text{ N}$$



Materials: Chrome Steel, Stainless Steel, Nylon

Lubrication: Each unit is pre-lubricated during manufacture and normally does not require further attention. In certain instances, we will advise on lubrication. Greasing or oil points can be incorporated in some units.

Cleaning: For cleaning use a suitable agent such as AC90 or WD40. Please consult Technical Support for advice. Most designs have dirt exit holes incorporated in the bearing cup.

Shock Loads: When calculating loads, consider the possibility of impact caused by incorrect levels. Spring loaded units will reduce wear and tear if there are regular shock impacts. Shock loading can also be reduced by fitting compressible pads. Ball units can also be made retractable by other means, such as pneumatic or hydraulic cylinders, cams or levers. They can be programmed to operate in sequence. All stated loads in the catalogue are dynamic loads.

Self-Levelling: Can be achieved by fitting rubber pads. This reduces excessive loads on just a few units. Details on request.

Temperature Range: Min. -30°C to max. +70°C continuous, or +100°C intermittent.

Application:



Conveyor table



Shear Machine



Air Cargo



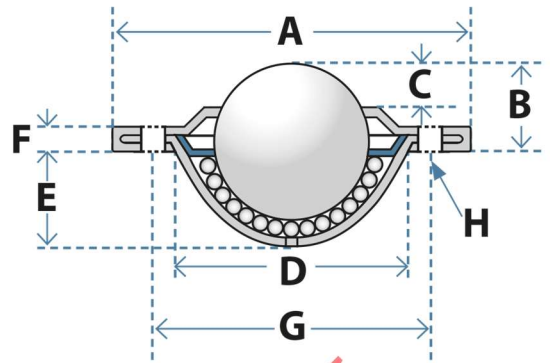
Glass Industries



Automotive Industries

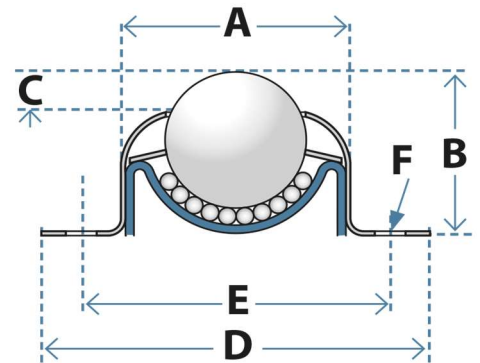
Note: General Tolerance unless stated +/- 1mm

FLANGE FIXING

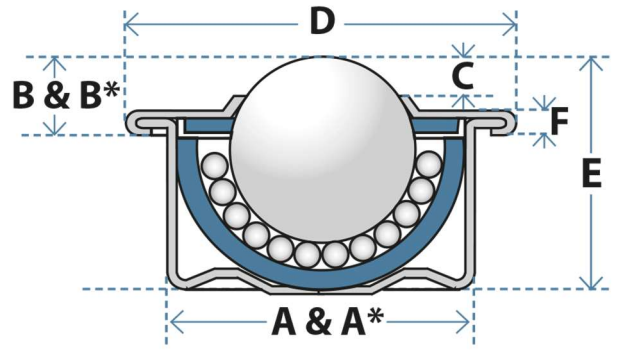


Model	Interchange	Ball Dia. (mm)	Load Cap.	A (mm)	B (mm)	E (mm)	D (mm)	G (mm)	F (mm)	Mount Hole (Qty*Dia.)
	Part No.									
MT-12F	CY-12B	12	10kg	40	7.8	7	22	28	3	2*Φ3.5
MT-16F	CY-16B	15.875	15kg	45	10	9	22	31	2.5	2*Φ4.5
MT-25F	CY-25B	25.4	30kg	71	14	16	40	55	3	2*Φ5.5
MT-30F	CY-30B	30	45kg	73	18	19	43	60	4	3*Φ5
MT-38F	CY-38B	38	55kg	95	-	28	55	80	6	3*Φ5

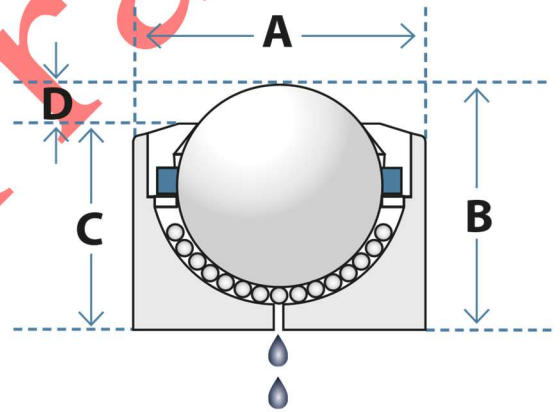
BASE FIXING



Model	Interchange	Ball Diameter (mm)	Loading Capacity	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	Mount hole F (Qty*Dia.)
	Part No.								
MT-12B	CY-12A	12	10kg	28	15.2	3.1	47	35	2*Φ4
MT-15B	CY-15A	15.875	15kg	27	21	5	50	40	2*Φ4
MT-18B	CY-18A	18	25kg	30	21	5	58	46	2*Φ5.3
MT-25B	CY-25A	25.4	30kg	43	31	8	71	56	2*Φ5.5
MT-30B	CY-30A	30	50kg	52	40	9	86	70	2*Φ7
MT-38B	CY-38A	38	80kg	65	46	10	76.5	62	4*Φ7

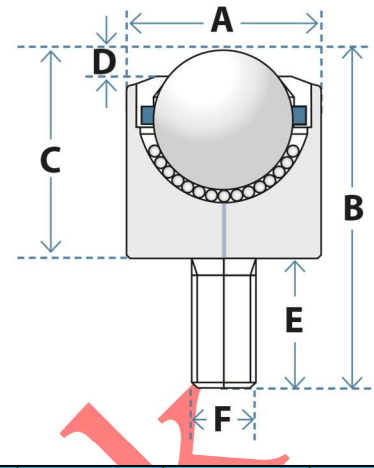


Model	Interchange	Ball Dia. (mm)	Loading Capacity	D (mm)	E (mm)	B x B (mm)	A x A (mm)	F (mm)
	Part No.							
MT-8E	CY-8H	8	5kg	16	10	3.8	13	2.5
MT-12E	CY-12H	12	10kg	23	16	8	17.8	3
MT-15E	CY-15H	15.875	25kg	32	21	10	24	3
MT-22E	CY-22H	22	55kg	45	30	10	36	3
MT-30E	CY-30H	30.16	85kg	55	35.5	22.3	45	3.2

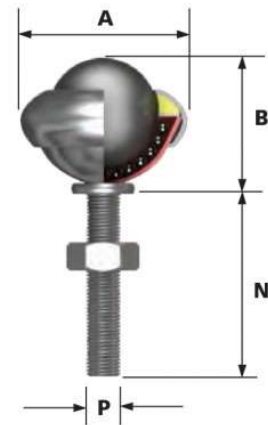
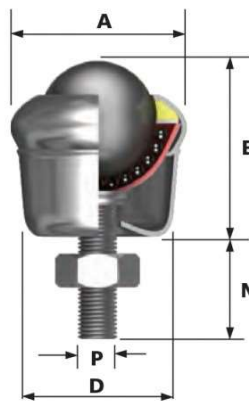


Model	Interchange	Ball Dia. (mm)	Loading Capacity	A (mm)	B (mm)	C (mm)
	Part No.					
MT-8P	KSM-8	8	8kg	12	10.3	8
MT-10P	KSM-10	10	20kg	16	12.5	8.5
MT-12P	KSM-12	12	30kg	22	17	14.5
MT-15P	KSM-15	15.875	45kg	24	20	14.5
MT-22P	KSM-22	22.2	100kg	36	31	23
MT-25P	KSM-25	25.4	150kg	37	32	22.5
MT-30P	KSM-30	30.16	200kg	45	38	27
MT-38P	KSM-38	38.1	300kg	55	48	33.5
MT-45P	KSM-45	45	450kg	62	53.4	37.6
MT-60P	KSM-60	60	650kg	100	77.5	47.5

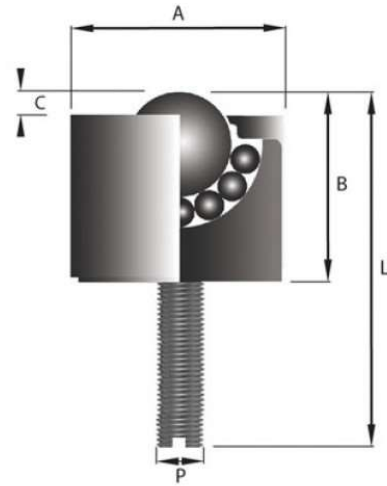
THREAD TYPE



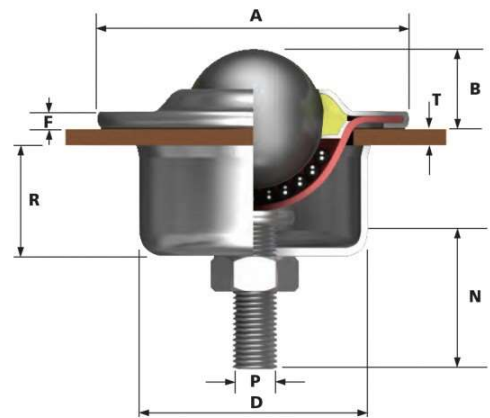
Model	Interchange	Ball diameter (mm)	Loading Capacity	A (mm)	B (mm)	C (mm)	D (mm)	Thread F
	Part No.							
MT -8PT	KSM-8FL	8	15kg	15	23.1	11.1	2	M5
MT -12PT	KSM-12FL	12	30kg	22	35	17	2.5	M8
MT -15PT	KSM-15FL	15.875	45kg	24	39	21	6	M8
MT -22PT	KSM-22FL	22.23	160kg	36	53	31	4	M10
MT -30PT	KSM-30FL	30.16	300kg	45	66.5	36.5	6.4	M16
MT -45PT	KSM-45FL	45	500kg	62	99	54	9	M20
MT -60PT	KSM-60FL	60	600kg	100	122.5	77.5	20	M24



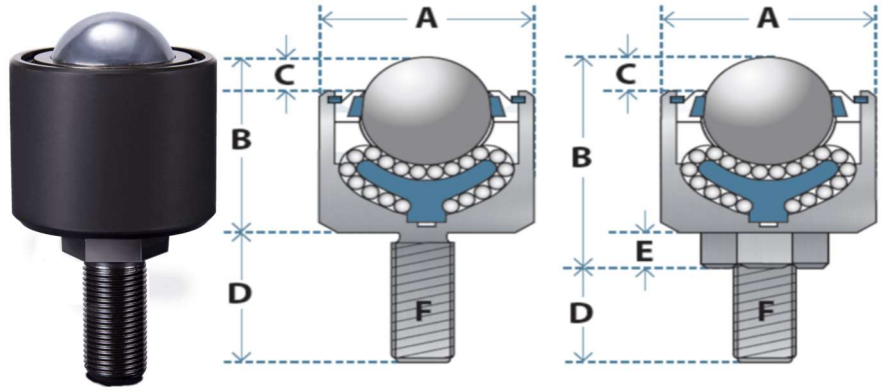
Model	Interchange	Ball diameter (mm)	Loading Capacity	A (mm)	B (mm)	N (mm)	L (mm)	Thread
	Part No.							
MT-19T	CY-19FL	19.05	20kg	29	22	19	41	M8
MT-25T	CY-25FL	25.4	20kg	39	30	25	55	M8
MT-40T With Bottom Cap	CY-40F	40	50kg	55	54	32	49	M10



Model	Interchange	Ball diameter	Loading	A	B	C	L	Thread
	Part No.	(mm)	Capacity	(mm)	(mm)	(mm)	(mm)	
MT-6FT	D-6H	6.35	6kg	12	9	1.5	21	M6
MT-9FT	D-9H	9.525	8kg	15	15	2.5	27	M6
MT-12FT	D-12H	12.7	10kg	20	18	3	30	M8
MT-15FT	D-15H	15.875	20kg	24	20.5	4	32.5	M6
MT-19FT	D-19H	19.05	60kg	32	26	4	46	M8
MT-25FT	D-25H	25.4	150kg	42	31.3	7	63	M10

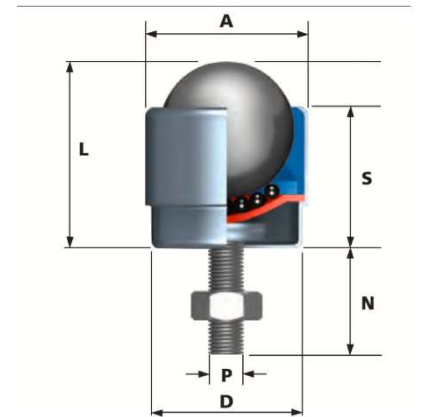


Model	Interchange	Ball Dia.	Loading	A	B	D	R	N	Thread
	Part No.	(mm)	Capacity	(mm)	(mm)	(mm)	(mm)	(mm)	
MT-8FFT	SP-8FL	8	15kg	20	4.3	15	6.8	12	M5
MT-15FFT	SP-15FL	15.875	50kg	31	10	24	11	18	M8
MT-22FFT	SP-22FL	22.23	160kg	45	9.8	36	21.2	22	M10
MT-30FFT	SP-30FL	30.16	300kg	55	13.8	45	22.7	30	M16
MT-45FFT	SP-45FL	45	500kg	75	19	62	35	45	M20



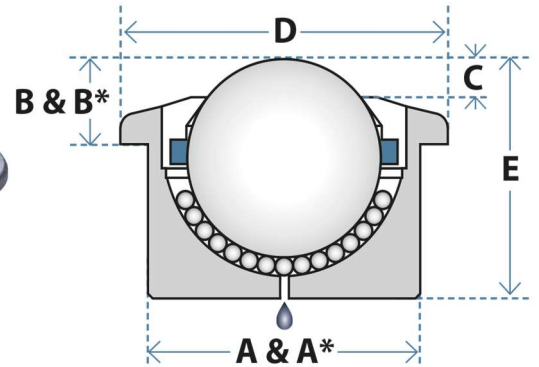
Model	Interchange	Ball diameter (mm)	Loading Capacity	A (mm)	B (mm)	C (mm)	D (mm)	Thread
	Part No.							
MT-19TS	IK-19N	19	60kg	42	33	3	25	M12
MT-22TS	IK-22N	22	90kg	48	40	3	30	M12
MT-25TS	IK-25N	25.4	150kg	55	46	4	35	M16
MT-38TS	IK-38N	38.1	200kg	80	70	8	45	M22
MT-51TS	IK-51N	51	450kg	100	95	12	50	M24

Multi

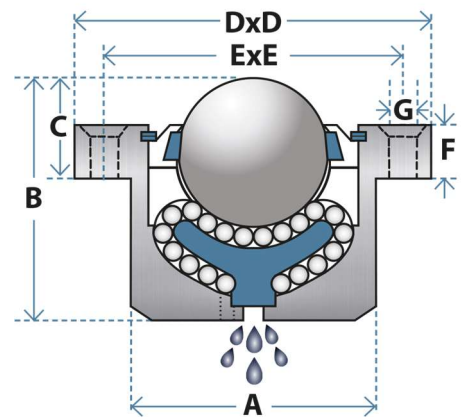


Model	Interchange	Ball diameter (mm)	Loading Capacity	A (mm)	S (mm)	L (mm)	N (mm)	D (mm)	Thread
	Part No.								
MT-19BF	CY-19D	19.05	25kg	23	22	27	14	16	M6
MT-25BF	CY-25D	25.4	40kg	31	28	35	20	25	M8

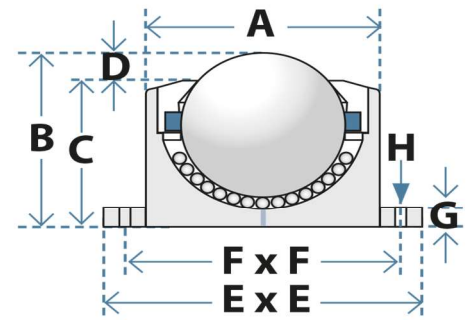
HEAVY DUTY



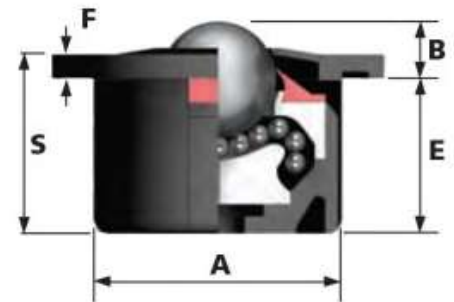
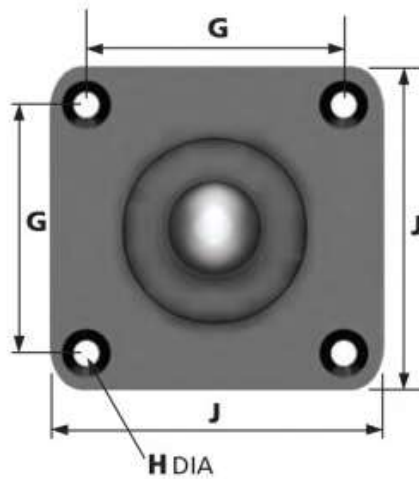
Model	Interchange Part No.	Ball diameter (mm)	Loading Capacity	A x A (mm)	B x B (mm)	C (mm)	D (mm)	E (mm)
MT-8MD	SP-8	8	15kg	15	4.3	2	20	11.1
MT-12MD	SP-12	12	30kg	18	7.3	2	23	15.5
MT-15MD	SP-15	15.875	50kg	24	10	6	31	21
MT-22MD	SP-22	22.23	160kg	36	9.8	4	45	31
MT-25MD	SP-25	25.4	200kg	38	14	7.2	45	31
MT-30MD	SP-30	30.16	300kg	45	13.8	6.4	55	36.5
MT-45MD	SP-45	45	550kg	62	19	9	75	54
MT-60MD	SP-60	60	1400kg	100	30	14	117	78



Model	Interchange Part No.	Ball Dia. (mm)	Loading Capacity	D x D (mm)	E x E (mm)	A (mm)	B (mm)	C (mm)	F (mm)	Mount hole (Qty*Dia.)
	MT-12 FS	SI-12	12.7	20kg	45	35	24	24	7	4
MT-25 FS	SI-25	25.4	200kg	57	45	45	42	10.3	4.7	4*Φ6
MT-30 FS	SI-30	30.16	250kg	68	54	54	50	12.5	6	4*Φ6.5
MT-38 FS	SI-38	38.1	300kg	76	58	60	62	25.4	12.7	4*Φ7
MT-51 FS	SI-51	51	700kg	127	102	102	98	33.3	19	4*Φ11

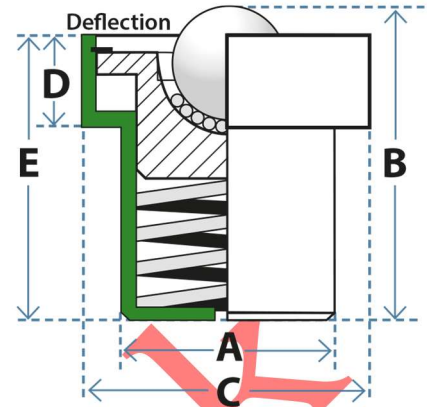


Model	Interchange	Ball Dia.	Loading	E x E	A	F x F	B	D	Flange width (G)	Mount Hole (H)
	Part No.	mm	Capacity							
MT-12 BB	SD-12	12	20kg	45	24	35	23	3.5	3	4*Φ3.6
MT-25 BB	SD-25	25.4	200kg	57	45	45	41	5.6	5	4*Φ5.6
MT-30 BB	SD-30	30.16	300kg	68	54	54	49	6.5	6	4*Φ6.5
MT-38 BB	SD-38	38.1	400kg	76	60	58	62	13	13	4*Φ7.1
MT-51 BB	SD-51	51	700kg	127	100	102	98	14.3	9.6	4*Φ11

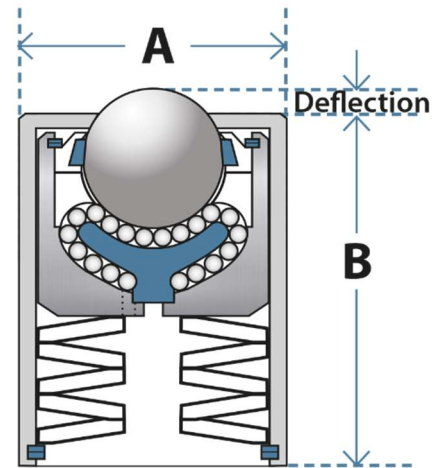


Model	Interchange	Ball Dia.	Loading	A	B	E	G	J	flange width	Mount hole
	Part No.	mm	Capacity							
MT-12K	UK-12	12.7	15kg	24	7	17	35	45	4	4*Φ4
MT-25K	UK-25	25.4	120kg	45	10.3	31.7	45	57	5	4*Φ5.6
MT-38K	UK-38	38.1	250kg	60	25	37	58	76	13	4*Φ7
MT-51K	UK-51	51	500kg	102	33.3	64.7	102	127	19	4*Φ11
MT-76K	UK-76	76	550kg	135	30	95	135	170	15	4*Φ16.5

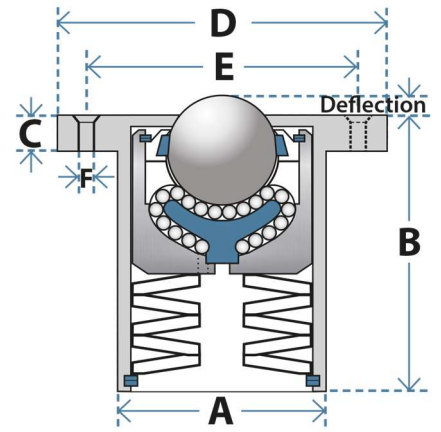
SPRING TYPE



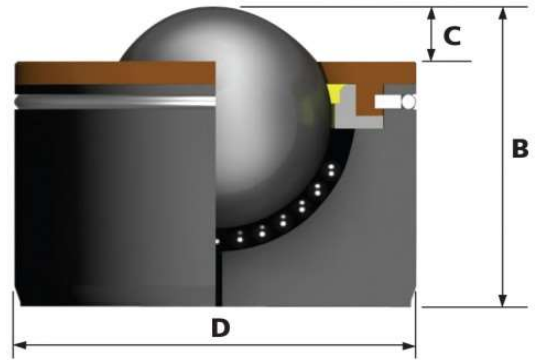
Model	Interchange Part No.	Ball diameter (mm)	Loading Capacity	A (mm)	B (mm)	C (mm)	D (mm)
MT-15SF	KSF-15	15.875	60kg	28	36	35	4
MT-22SF	KSF-22	22	80kg	39	54	50	14
MT-30SF	KSF-30	30	150kg	49	67	62	17.5
MT-45SF	KSF-45	45	280kg	66.5	101.5	86	26



Model	Interchange Part No.	Ball diameter (mm)	Loading Capacity	A (mm)	B (mm)	Deflection (mm)
MT-12SP	KSH-12	12.7	40kg	24.5	28.5	1.5
MT-15SP	KSH-15	15.875	50kg	28	33	3
MT-20SP	KSH-20	19.05	100kg	38	38	3
MT-25SP	KSH-25	25.4	150kg	44	45	5



Model	Interchange	Ball diameter	Loading	A	B	C	D	E	Hex hole
	Part No.	(mm)	Capacity	(mm)	(mm)	(mm)	(mm)	(mm)	(Qty *Thread)
MT-19SRF	UK-19T	19.05	80kg	48	40.5	3.5	74	60	3*M6
MT-30SRF	UK-30T	30.16	200kg	75	64	5.5	117	95	3*ΦM8
MT-38SRF	UK-38T	38.1	250kg	95	81	7	148	120	3*ΦM10
MT-45SRF	UK-45T	45	300kg	110	96	8.5	175	142	3*ΦM12
MT-50SRF	UK-50T	50	350kg	125	106	9.5	195	158	3*ΦM14



Model	Interchange	Ball diameter	Loading	B	C	D	Weight
	Part No.	(mm)	Capacity	(mm)	(mm)	(mm)	(kg)
MT-76HP	SP-76	76	3000kg	103	23	130	10000
MT-90HP	SP-90	90	4000kg	115	25	145	12000

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