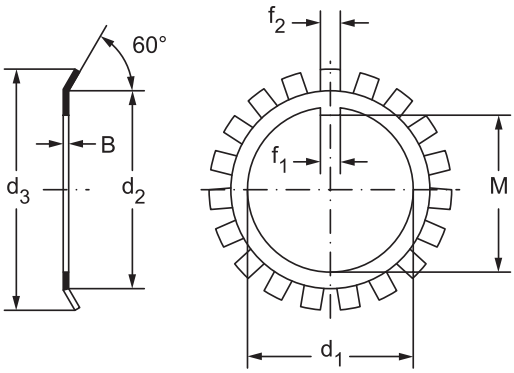
Safety mats d = 10 to 200 mm

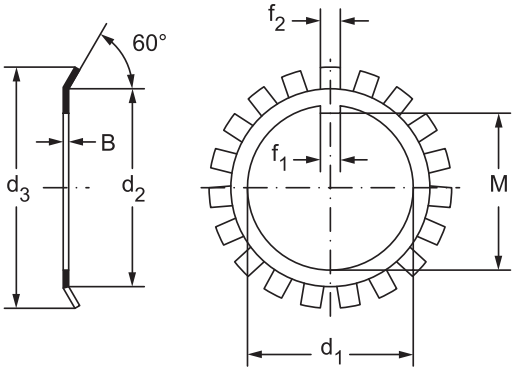
d = 10 to 100 mm



12.13.4

Main dimensions						
d_1	d_2	d_3	B	f_1	f_2	M
mm						
10	13,5	21	1	3	3	8,5
12	17	25	1	3	3	10,5
15	21	28	1	4	4	13,5
17	24	32	1	4	4	15,5
20	26	36	1	4	4	18,5
25	32	42	1,25	5	5	23
30	38	49	1,25	5	5	27,5
35	44	57	1,25	6	5	32,5
40	50	62	1,25	6	6	37,5
45	56	69	1,25	6	6	42,5
50	61	74	1,25	6	6	47,5
55	67	81	1,5	8	7	52,5
60	73	86	1,5	8	7	57,5
65	79	92	1,5	8	7	62,2
70	85	98	1,5	8	8	66,5
75	90	104	1,5	8	8	71,5
80	95	112	1,8	10	8	76,5
85	102	119	1,8	10	8	81,5
90	108	126	1,8	10	10	86,5
95	113	133	1,8	10	10	91,5
100	120	140	1,8	12	10	96,5

Locking washers designation	Weight 100 pcs.
	kg
MB0	0,13
MB1	0,2
MB2	0,26
MB3	0,32
MB4	0,35
MB5	0,64
MB6	0,78
MB7	1,04
MB8	1,23
MB9	1,52
MB10	1,6
MB11	1,96
MB12	2,53
MB13	2,9
MB14	3,34
MB15	3,56
MB16	4,64
MB17	5,24
MB18	6,23
MB19	6,7
MB20	7,65

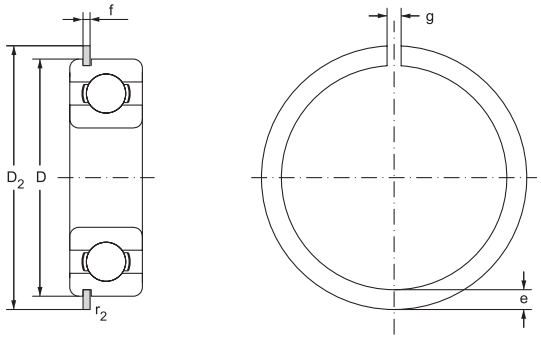


12.13.4

Main dimensions						
d_1	d_2	d_3	B	f_1	f_2	M
mm						
105	126	145	1,8	12	12	100,5
110	133	154	1,8	12	12	105,5
115	137	159	2	12	12	110,5
120	135	148	2	14	12	115
	138	164	2	14	12	115
125	148	170	2	14	12	120
130	149	175	2	14	12	125
135	160	185	2	14	14	130
140	160	192	2	16	14	135
150	171	205	2	16	14	145
160	182	217	2,5	18	16	154
170	193	232	2,5	18	16	164
180	203	242	2,5	20	18	174
190	214	252	2,5	20	18	184
200	226	262	2,5	20	18	194

Locking washers designation	Weight 100 pcs.
	kg
MB21	8,26
MB22	9,4
MB23	10,8
MBL24	7
MB24	10,5
MB25	11,8
MB26	11,3
MB27	14,4
MB28	14,2
MB30	15,5
MB32	22,2
MB34	24,7
MB36	16,8
MB38	27,8
MB40	29,3

Snap rings for roller bearings with a groove on the outer ring



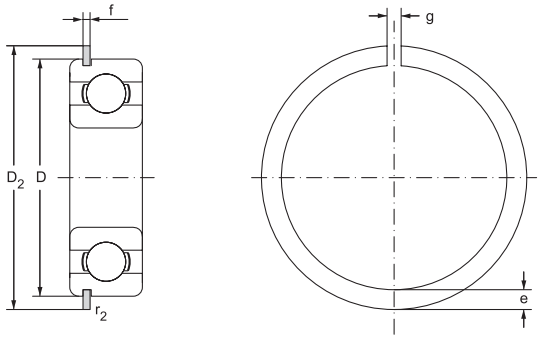
12.13.5

Main dimensions					
D	D_2 1)	e	f	g 1)	r_2
	max	max	max	max	min
mm					
32	36,7	3,25	1,12	3	0,4
35	39,7	3,25	1,12	3	0,4
40	44,6	3,25	1,12	3	0,4
42	46,3	3,25	1,12	3	0,4
47	52,7	4,04	1,12	4	0,4
52	57,9	4,04	1,12	4	0,4
55	60,7	4,04	1,12	4	0,6
62	67,7	4,04	1,7	4	0,6
68	74,6	4,85	1,7	5	0,6
72	78,6	4,85	1,7	5	0,6
75	81,6	4,85	1,7	5	0,6
80	86,6	4,85	1,7	5	0,6
85	91,6	4,85	1,7	5	0,6
90	96,5	4,85	2,46	5	0,6
95	101,6	4,85	2,46	5	0,6
100	106,5	4,85	2,46	5	0,6
110	116,5	4,84	2,46	5	0,6
115	121,6	4,85	2,46	5	0,6
120	129,7	7,21	2,82	7	0,6
125	134,7	7,21	2,82	7	0,6
130	139,7	7,21	2,82	7	0,6

[1] Dimensions D_2 and g apply for a retaining ring fit into the bearing

Weight 100 pcs.	Commerical designation	Designation of corresponding single row ball bearing			
		type			
		60	62	63	64
kg					
0,287	**R32**	6002N	6201N		
0,313	**R35**	6003N	6202N		
0,356	**R40**		6203N		
0,371	**R42**	6004N		6302N	
0,521	**R47**	6005N	6204N	6303N	
0,578	**R52**		6205N	6304N	
0,609	**R55**	6006N			
1,03	**R62**	6007N	6206N	6305N	6403N
1,36	**R68**	6008N			
1,44	**R72**		6207N	6306N	6404N
1,5	**R75**	6009N			
1,6	**R80**	6010N	6208N	6307N	6405N
1,7	**R85**		6209N		
2,67	**R90**	6011N	6210N	6308N	6406N
2,77	**R95**	6012N			
2,91	**R100**	6013N	6211N	6309N	6407N
3,2	**R110**	6014N	6212N	6310N	6408N
3,35	**R115**	6015N	6213N		
5,99	**R120**			6311N	6409N
6,24	**R125**	6016N	6214N		
6,48	**R130**	6017N	6215N	6312N	6410N

Snap rings for roller bearings with a groove on the outer ring



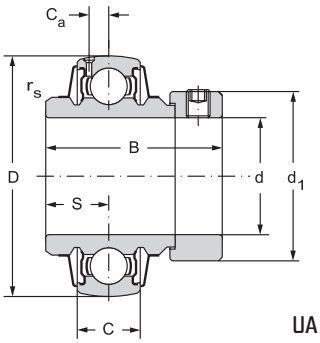
12.13.5

Main dimensions					
D	D_2 [1]	e	f	g [1]	r_2
	max	max	max	max	min
mm					
140	149,7	7,21	2,82	7	0,6
145	154,7	7,21	2,82	7	0,6
150	159,7	7,21	2,82	7	0,6
160	169,7	7,21	3,1	10	0,6
170	182,9	9,6	3,1	10	0,6
180	192,9	9,6	3,1	10	0,6
190	202,9	9,6	3,1	10	0,6
200	212,9	9,6	3,1	10	0,6

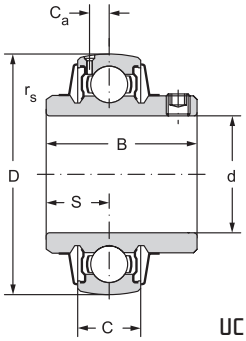
[1] Dimensions D_2 and g apply for a retaining ring fit into the bearing

Weight 100 pcs.	Commerical designation	Designation of corresponding single row ball bearing			
		type			
		60	62	63	64
kg					
6,98	**R140**	6018N	6216N	6313N	6411N
7,23	**R145**	6019N	6217N		
7,48	**R150**	6020N		6314N	6412N
7,98	**R160**	6021N	6218N	6315N	6413N
12,4	**R170**	6022N	6219N	6316N	
13,2	**R180**	6024N	6220N	6317N	6414N
13,9	**R190**		6221N	6318N	6415N
14,6	**R200**	6026N	6222N	6319N	6416N

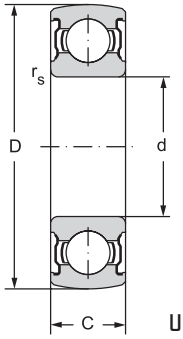
Clamp bearings d = 20 to 40 mm



UA



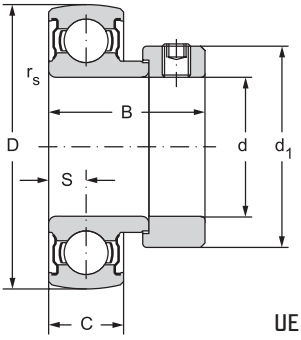
UC



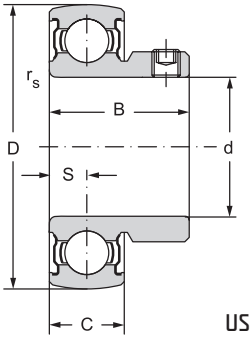
UD

12.13.6

Main dimensions								Basic load rating	
d	D	B	C	r_s	d_1	S	C_a	dynamic C_r	static C_{or}
				min	max				
mm								kN	
20	47	31,4	14	1		12,7	4,1	12,77	6,56
25	52	44,4	15	1	38	17,5	4,1	14	7,9
	52	34,1	15	1		14,3	4,1	14	7,9
	52		15	1		7,5		14	7,9
	52	31	15	0,6	38	7,5		14	7,9
	52	27,7	15	1		7,5		14	7,9
30	62	48,4	16	1	45	18,3	4,8	19,4	11,2
	62	38,1	16	1		15,9	4,8	19,4	11,2
	62		16	1		8		19,4	11,2
	62	35,7	16	0,6	45	8		19,4	11,2
	62	30,3	16	1		8		19,4	11,2
35	72	51,1	17	1,1	56,5	18,8	5,3	25,6	15,2
	72	42,9	17	1,1		17,5	5,3	25,6	15,2
	72		17	1,1		8,5		25,6	15,2
	72	38,9	17	0,6	56,5	9,5		25,6	15,2
	72	34	17	1,1		8,5		25,6	15,2
40	80	56,3	18	1,1	60	21,4	5,9	32,6	19,8
	80	49,2	18	1,1		19	5,9	32,6	19,8
	80		18	1,1		9		32,6	19,8
	80	43,7	18	0,6	60	11		32,6	19,8
	80	39,5	18	1,1		9		32,6	19,8



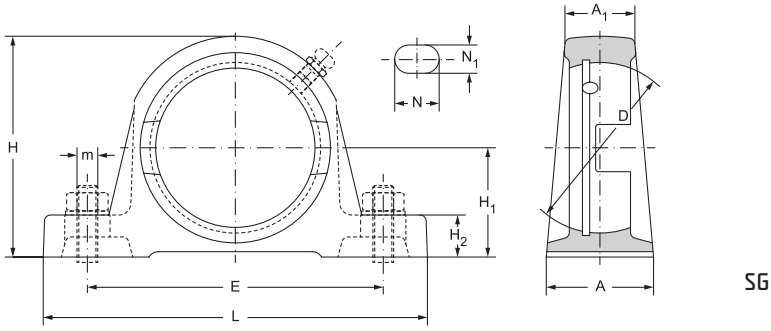
UE



US

Bearing designation	Weight	Limiting speed for lubrication				
		Shaft diameter tolerance				
		h6	h7	h8	h9	h11
	kg	min^{-1}				
UC204	0,146	8500	5300	3800	1300	850
UA205	0,23	7100	4500	3200	1000	710
UC205	0,17	7100	4500	3200	1000	710
UD205	0,126					
UE205	0,18	7100	4500	3200	1000	710
US205	0,15	7100	4500	3200	1000	710
UA206	0,36	6300	4000	2800	890	630
UC206	0,28	6300	4000	2800	890	630
UD206	0,195					
UE206	0,28	6300	4000	2800	890	630
US206	0,21	6300	4000	2800	890	630
UA207	0,55	5300	3300	2200	750	530
UC207	0,41	5300	3300	2200	750	530
UD207	0,278					
UE207	0,42	5300	3300	2200	750	530
US207	0,33	5300	3300	2200	750	530
UA208	0,7	4700	3000	1900	670	470
UC208	0,55	4700	3000	1900	670	470
UD208	0,36					
UE208	0,57	4700	3000	1900	670	470
US208	0,45	4700	3000	1900	670	470

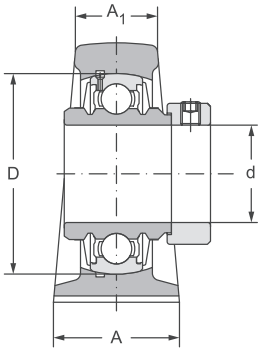
Upright location units with clamp ring d = 25 to 40 mm



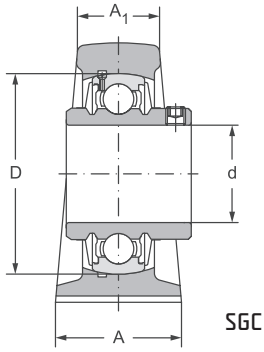
SG

12.13.7

Main dimensions											
d	D	L	E	H	H_1	H_2	A	A_1	N	N_1	m
mm											
25	52	130	102	70,5	36,5	14	34	22	17	12	M10
	52	130	102	70,5	36,5	14	34	22	17	12	M10
30	62	155	118	84	42,9	17	39	24	20	15	M12
	62	155	118	84	42,9	17	39	24	20	15	M12
35	72	160	128	93	47,6	19	44	29	20	15	M12
	72	160	128	93	47,6	19	44	29	20	15	M12
40	80	175	133	100	49,2	19	50	32	20	15	M12
	80	175	133	100	49,2	19	50	32	20	15	M12



SGA

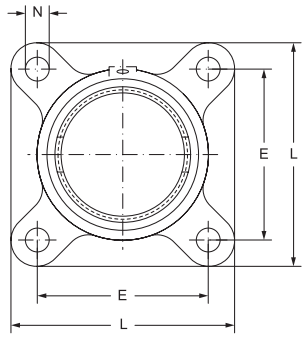


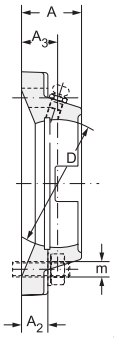
SGC

When using UE type bearings in SG hubs, the hub unit designation is SGE
When using US type bearings in SG hubs, the hub unit designation is SGS

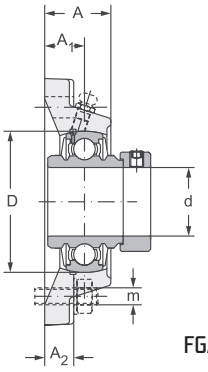
Basic load rating		Designation of			Weight
dynamic C_r	static C_{or}	unit	housing	bearing	
kN					kg
14	7,94	SGA205	SG205	**UA205**	0,74
14	7,94	SGC205	SG205	**UC205**	0,68
19,4	11,2	SGA206	SG206	**UA206**	1,2
19,4	11,2	SGC206	SG206	**UC206**	1,12
25,6	15,2	SGA207	SG207	**UA207**	1,6
25,6	15,2	SGC207	SG207	**UC207**	1,46
32,6	19,8	SGA208	SG208	**UA208**	1,95
32,6	19,8	SGC208	SG208	**UC208**	1,8

Four row flanged location units with clamp ring d = 25 to 40 mm





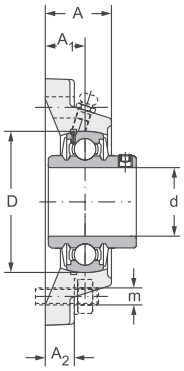
FG



FGA

12.13.8

Main dimensions									
d	D	L	E	A	A_1	A_2	A_3	N	m
mm									
25	52	95	70	45,9	29,5	13	19	12	M10
	52	95	70	38,8	29,5	13	19	12	M10
30	62	108	82,5	50,1	31	13	20	12	M10
	62	108	82,5	42,2	31	13	20	12	M10
35	72	118	92	52,8	33,5	14	20,5	15	M12
	72	118	92	45,9	33,5	14	20,5	15	M12
40	80	130	101,5	57,9	36,5	14	23	15	M12
	80	130	101,5	53,5	36,5	14	23	15	M12

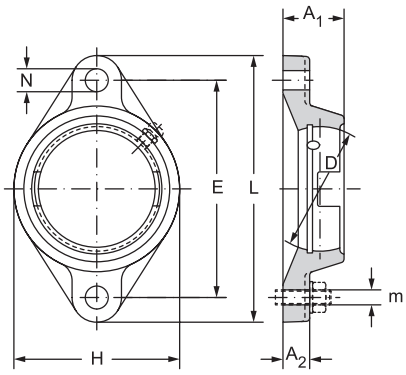


FGC

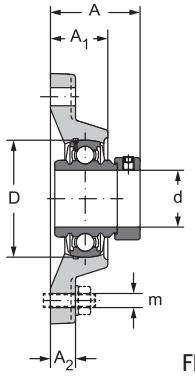
When using UE type bearings in FM hubs, the hub system designation is FME
When using UD type bearings in FM hubs, the hub system designation is FMD
When using US type bearings in FM hubs, the hub system designation is FMS

Basic load rating		Weight	Designation of		
dynamic C_r	static C_{or}		unit	housing	bearing
kN		kg			
14	7,9	0,83	FGA205	FG205	**UA205**
14	7,9	0,77	FGC205	FG205	**UC205**
19,4	11,2	1,2	FGA206	FG206	**UA206**
19,4	11,2	1,12	FGC206	FG206	**UC206**
25,6	15,2	1,55	FGA207	FG207	**UA207**
25,6	15,2	1,41	FGC207	FG207	**UC207**
32,6	19,8	2,05	FGA208	FG208	**UA208**
32,6	19,8	1,9	FGC208	FG208	**UC208**

Oval shaped flanged location units with clamp ring d = 25 to 40 mm



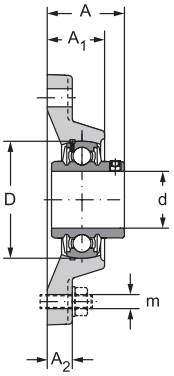
FM



FMA

12.13.9

Main dimensions									
d	D	L	H	E	A	A_1	A_2	N	m
mm									
25	52	123	70	99	45,9	29,5	13	12	M10
	52	123	70	99	38,8	29,5	13	12	M10
30	62	142	83	116,5	50,1	31	13	12	M10
	62	142	83	116,5	42,2	31	13	12	M10
35	72	156	92	130	53,3	33,5	14	14	M12
	72	156	92	130	46,4	33,5	14	14	M12
40	80	172	102	143,8	58,9	37	14	15	M12
	80	172	102	143,8	54,2	37	14	15	M12



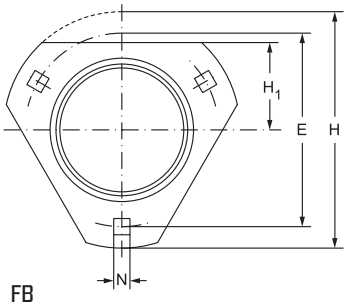
FMC

When using UE type bearings in FM hubs, the hub system designation is FME
When using UD type bearings in FM hubs, the hub system designation is FMD
When using US type bearings in FM hubs, the hub system designation is FMS

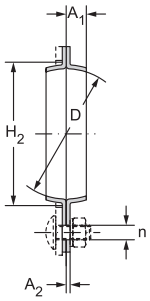
Basic load rating		Weight	Designation of		
dynamic C_r	static C_{or}		unit	housing	bearing
kN		kg			
14	7,9	0,64	FMA205	FM205	**UA205**
14	7,9	0,58	FMC205	FM205	**UC205**
14,4	11,2	1,08	FMA206	FM206	**UA206**
14,4	11,2	1	FMC206	FM206	**UC206**
25,6	15,2	1,45	FMA207	FM207	**UA207**
25,6	15,2	1,31	FMC207	FM207	**UC207**
32,6	19,8	1,75	FMA208	FM207	**UA208**
32,6	19,8	1,6	FMC208	FM207	**UC208**

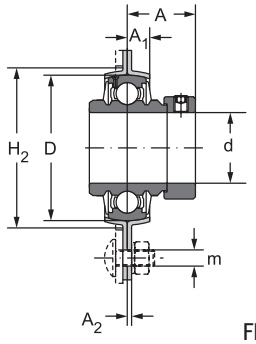
Triangular pressed flanged location units with clamp bearing

d = 25 to 35 mm



FB

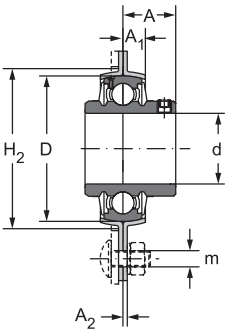




FBA

12.13.10

Main dimensions										
d	D	H	E	H_1	H_2	A	A_1	A_2	N	m
mm										
25	52	99,5	76	34,5	60	26,9	9	2	8,8	M8
	52	99,5	76	34,5	60	19,8	9	2	8,8	M8
30	62	112,5	90,5	38,5	71	30,1	9,5	2,5	10,5	M10
	62	112,5	90,5	38,5	71	22,2	9,5	2,5	10,5	M10
35	72	122	100	45	81	32,3	10	2,5	10,5	M10
	72	122	100	45	81	24,1	10	2,5	10,5	M10

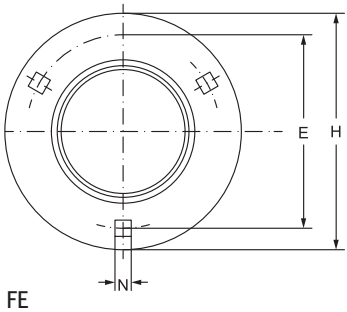


FBC

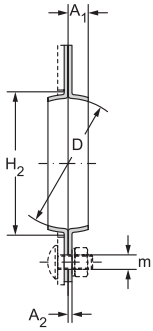
When using UE type bearings in FB hubs, the hub system designation is FBE
When using UD type bearings in FB hubs, the hub system designation is FBD
When using US type bearings in FB hubs, the hub system designation is FBS

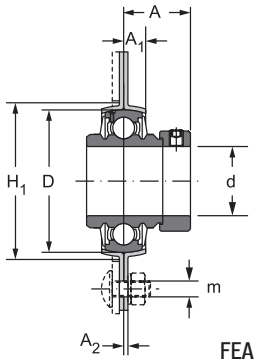
Basic load rating		Weight	Designation of		
dynamic C_r	static C_{or}		unit	housing	bearing
kN		kg			
14	7,9	0,36	FBA205	FB205	**UA205**
14	7,9	0,3	FBC205	FB205	**UC205**
19,4	11,2	0,58	FBA206	FB206	**UA206**
19,4	11,2	0,5	FBC206	FB206	**UC206**
25,6	15,2	0,81	FBA207	FB207	**UA207**
25,6	15,2	0,67	FBC207	FB207	**UC207**

Round pressed flanged location units with clamp bearing d = 20 to 35 mm



FE

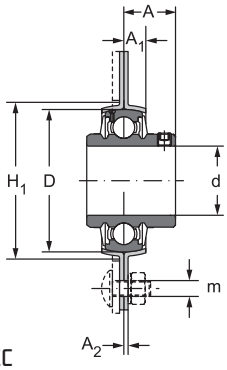




FEA

12.13.11

Main dimensions									
d	D	H	E	H_2	A	A_1	A_2	N	m
mm									
20	47	91	71,5	55	18,3	8	2	8,7	M8
25	52	95	76	60	26,9	8,5	2	8,7	M8
	52	95	76	60	19,8	8,5	2	8,7	M8
30	62	112,7	90,5	71	30,1	8,7	2,5	10,5	M10
	62	112,7	90,5	71	22,2	8,7	2,5	10,5	M10
35	72	122	100	81	32,3	9,5	2,5	10,5	M10
	72	122	100	81	24,1	9,5	2,5	10,5	M10

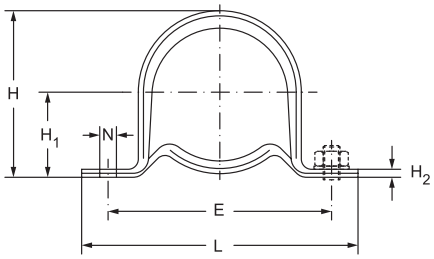


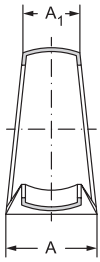
FEC

When using UE type bearings in FE hubs, the hub system designation is FEE
When using UD type bearings in FE hubs, the hub system designation is FED
When using US type bearings in FE hubs, the hub system designation is FES

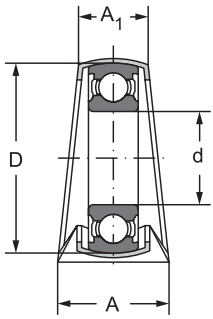
Basic load rating		Weight	Designation of		
dynamic C_r	static C_{or}		unit	housing	bearing
kN		kg			
12,7	6,5	0,27	FEC204	FE204	**UC204**
14	7,9	0,4	FEA205	FE205	**UA205**
14	7,9	0,35	FEC205	FE205	**UC205**
19,4	11,2	0,65	FEA206	FE206	**UA206**
19,4	11,2	0,55	FEC206	FE206	**UC206**
25,6	15,2	0,86	FEA207	FE207	**UA207**
25,6	15,2	0,86	FEC207	FE207	**UC207**

Upright sheet metal location units with clamp bearing d = 25 to 35 mm





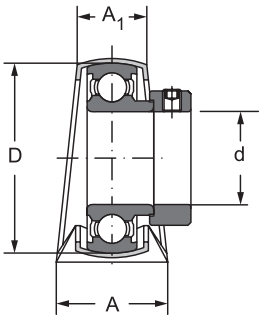
SA



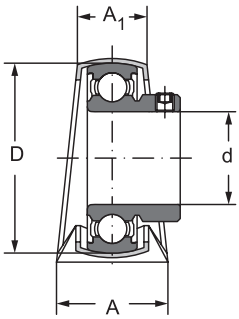
SAD

12.13.12

Main dimensions									
d	D	A	A_1	E	L	H	H_1	H_2	N
mm									
25	52	32	21,5	86	108	56,6	28,6	4	11,2
30	62	38	23,8	95	119	66,3	33,3	4	11,2
35	72	42	27	106	130	78,2	39,7	5	11,2



SAE



SAS

SAD type hub assemblies use UD bearings
SAE type hub assemblies use UE bearings
SAS type hub assemblies use US bearings

Basic load rating		Weight	Designation of			
dynamic C_r	static C_{or}		housing	housing with bearing		
kN		kg				
14	7,9	0,33	**SA205**	**SAD205**	**SAE205**	**SAS205**
19,4	11,2	0,53	**SA206**	**SAD206**	**SAE206**	**SAS206**
25,6	15,2	0,81	**SA207**	**SAD207**	**SAE207**	**SAS207**