

For use in Europe only.

KTM Series RA

Ball Valves

Series	Size	End Connection	Drilling / Schedule	Face-to-Face	Pressure Rating	Body Material	Ball Material	Stem Material	Seat Material	Sealing Material	Operator Mounting Type	Actuation Type	Optional Feature 1	Optional Feature ...
RASF	0008	BG	W1	00	P3	CJ	S00	U0	T4	G0	I	L	ENC	JKF



Model / Series

Code	Description
RASF	Series RA, Standard, Full Bore
RASR	Series RA, Standard, Reduced Bore
RAFF	Series RA, Firesafe, Full Bore
RAFR	Series RA, Firesafe, Reduced Bore
RAHF	Series RA, High Temp, Full Bore
RAHR	Series RA, High Temp, Reduced Bore
RACF	Series RA, Cryogenic, Full Bore
RACR	Series RA, Cryogenic, Reduced Bore

Size

Code	Description
0008	DN 8 / NPS ¼
0010	DN 10 / NPS ¾
0015	DN 15 / NPS ½
0020	DN 20 / NPS ¾
0025	DN 25 / NPS 1
0032	DN 32 / NPS 1¼
0040	DN 40 / NPS 1½
0050	DN 50 / NPS 2
0065	DN 65 / NPS 2½
0080	DN 80 / NPS 3
0100	DN 100 / NPS 4
0125	DN 125 / NPS 5
0150	DN 150 / NPS 6
0200	DN 200 / NPS 8
ZZZZ	Special

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	RASF - 0008	BG	W1	00	P3	CJ	S00	U0	T4	G0	I	L	ENC	JKF

End Connection

Code	Description
B9	Butt Weld - DIN 11850 ROW 1
BA	Butt Weld - DIN 11850 ROW 2
BB	Butt Weld - DIN 11850 ROW 3
BC	Butt Weld - DIN 2559
BD	Butt Weld - ISO 1127
BG	Butt Weld - ANSI B36.10
BK	Butt Weld - 100 mm (4 in) Pipe Extension
CT	Valve Center Section Only (No Ends)
EC	Flange - EN Tongue (Type C)
ED	Flange - EN Groove (Type D)
EE	Flange - EN Spigot (Type E)
EF	Flange - EN Recess (Type F)
F1	Flange - ASME Flat Face (FF) - 32 to 63 AARH (Smooth)
F3	Flange - ASME Flat Face (FF) - 125 to 250 AARH
F4	Flange - ASME Flat Face (FF) - 250 to 500 AARH
F6	Flange - EN Flat Face (FF) - 32 to 63 AARH (Smooth)
F8	Flange - EN Flat Face (FF) - 125 to 250 AARH
F9	Flange - EN Flat Face (FF) - 250 to 500 AARH
EF	Flange - EN Recess (Type F)
H3	Hub / Clamp - Tri-Clamp
	ASME Flat Face (Standard)
	EN Flat Face (B1)
R1	Flange - ASME Raised Face (RF) - 32 to 63 AARH (Smooth)
R3	Flange - ASME Raised Face (RF) - 125 to 250 AARH
R4	Flange - ASME Raised Face (RF) - 250 to 500 AARH
R6	Flange - EN Raised Face (RF) - 32 to 63 AARH (Smooth)
R8	Flange - EN Raised Face (RF) - 125 to 250 AARH
R9	Flange - EN Raised Face (RF) - 250 to 500 AARH
RJ	Flange - Ring Type Joint (RTJ)
SE	Screwed Ends (Threaded)
SW	Socket Weld - ASME B16.11

Code	Description
1A	Socket Weld - ASME / Flange - ASME Raised Face (Standard)
1B	Socket Weld - ASME / Flange - EN Raised Face (B1)
1C	Socket Weld - ASME / Flange - ASME Flat Face (Standard)
1D	Socket Weld - ASME / Flange - EN Flat Face (B1)
1E	Socket Weld - ASME / Flange - RTJ
1F	Socket Weld - ASME / Screwed Ends
1G	Flange - ASME Raised Face (Standard) / Socket Weld - ASME
1H	Flange - ASME Raised Face (Standard) / Screwed Ends
1K	Flange - ASME Raised Face (Standard) / Butt Weld - DIN 11850 ROW 1
1M	Flange - ASME Raised Face (Standard) / Butt Weld - DIN 11850 ROW 2
1P	Flange - ASME Raised Face (Standard) / Butt Weld - DIN 2559
1R	Flange - ASME Raised Face (Standard) / Butt Weld - ISO 1127
1S	Flange - EN Raised Face (B1) / Socket Weld - ASME
1T	Flange - EN Raised Face (B1) / Screwed Ends
1U	Flange - EN Raised Face (B1) / Butt Weld - DIN 11850 ROW 1
1V	Flange - EN Raised Face (B1) / Butt Weld - DIN 11850 ROW 2
1Y	Flange - EN Raised Face (B1) / Butt Weld - DIN 2559
2A	Flange - EN Raised Face (B1) / Butt Weld - ISO 1127
2B	Flange - ASME Flat Face (Standard) / Socket Weld - ASME
2C	Flange - ASME Flat Face (Standard) / Screwed Ends
2D	Flange - ASME Flat Face (Standard) / Butt Weld - DIN 11850 ROW 1
2E	Flange - ASME Flat Face (Standard) / Butt Weld - DIN 11850 ROW 2

Code	Description
2G	Flange - ASME Flat Face (Standard) / Butt Weld - DIN 2559
2H	Flange - ASME Flat Face (Standard) / Butt Weld - ISO 1127
2K	Flange - EN Flat Face (B1) / Socket Weld - ASME
2M	Flange - EN Flat Face (B1) / Screwed Ends
2N	Flange - EN Flat Face (B1) / Butt Weld - DIN 11850 ROW 1
2P	Flange - EN Flat Face (B1) / Butt Weld - DIN 11850 ROW 2
2S	Flange - EN Flat Face (B1) / Butt Weld - DIN 2559
2T	Flange - EN Flat Face (B1) / Butt Weld - ISO 1127
2U	Flange - RTJ / Socket Weld - ASME
2V	Flange - RTJ / Screwed Ends
2W	Flange - RTJ / Butt Weld - DIN 11850 ROW 1
2Y	Flange - RTJ / Butt Weld - DIN 11850 ROW 2
3B	Flange - RTJ / Butt Weld - DIN 2559
3C	Flange - RTJ / Butt Weld - ISO 1127
5G	Screwed Ends (Different Threads)
3D	Screwed Ends / Socket Weld - ASME
3E	Screwed Ends / Flange - ASME Raised Face (Standard)
3F	Screwed Ends / Flange - EN Raised Face (B1)
3G	Screwed Ends / Flange - ASME Flat Face (Standard)
3H	Screwed Ends / Flange - EN Flat Face (B1)
3K	Screwed Ends / Flange - RTJ
3M	Screwed Ends / Butt Weld - DIN 11850 ROW 1
3N	Screwed Ends / Butt Weld - DIN 11850 ROW 2
3R	Screwed Ends / Butt Weld - DIN 2559
3S	Screwed Ends / Butt Weld - ISO 1127 Raised Face (Standard)

Series	Size	End Connection	Drilling / Schedule	Face-to-Face	Pressure Rating	Body Material	Ball Material	Stem Material	Seat Material	Sealing Material	Operator Mounting Type	Actuation Type	Optional Feature 1	Optional Feature ...
	RASF - 0008	BG	W1	00	P3	CJ	S00	U0	T4	G0	I	L	ENC	JKF

End Connection (continued)

Code	Description
3T	Butt Weld - DIN 11850 ROW 1 / Flange - ASME Raised Face (Standard)
3U	Butt Weld - DIN 11850 ROW 1 / Flange - EN Raised Face (B1)
3V	Butt Weld - DIN 11850 ROW 1 / Flange - ASME Flat Face (Standard)
3W	Butt Weld - DIN 11850 ROW 1 / Flange - EN Flat Face (B1)
4A	Butt Weld - DIN 11850 ROW 1 / Screwed Ends
4B	Butt Weld - DIN 11850 ROW 2 / Flange - ASME Raised Face (Standard)
4C	Butt Weld - DIN 11850 ROW 2 / Flange - EN Raised Face (B1)
4D	Butt Weld - DIN 11850 ROW 2 / Flange - ASME Flat Face (Standard)
4E	Butt Weld - DIN 11850 ROW 2 / Flange - EN Flat Face (B1)
4F	Butt Weld - DIN 11850 ROW 2 / Flange - RTJ
4G	Butt Weld - DIN 11850 ROW 2 / Screwed Ends
4S	Butt Weld - DIN 2559 / Flange - ASME Raised Face (Standard)
4T	Butt Weld - DIN 2559 / Flange - EN Raised Face (B1)
4U	Butt Weld - DIN 2559 / Flange - ASME Flat Face (Standard)
4V	Butt Weld - DIN 2559 / Flange - EN Flat Face (B1)
4W	Butt Weld - DIN 2559 / Flange - RTJ
4Y	Butt Weld - DIN 2559 / Screwed Ends
5A	Butt Weld - ISO 1127 / Flange - ASME Raised Face (Standard)
5B	Butt Weld - ISO 1127 / Flange - EN Raised Face (B1)
5C	Butt Weld - ISO 1127 / Flange - ASME Flat Face (Standard)
5D	Butt Weld - ISO 1127 / Flange - EN Flat Face (B1)
5E	Butt Weld - ISO 1127 / Flange - RTJ
5F	Butt Weld - ISO 1127 / Screwed Ends

Code	Description
5J	Butt Weld - 100 mm (4 in) Pipe Pup / Flange - ASME Flat Face (Standard)
5K	Butt Weld - 100 mm (4 in) Pipe Pup / Flange - EN Flat Face (B1)
5L	Butt Weld - 100 mm (4 in) Pipe Pup / Flange - RTJ
5M	Butt Weld - 100 mm (4 in) Pipe Pup / Screwed Ends
5N	Butt Weld - 100 mm (4 in) Pipe Pup / Flange - ASME Raised Face (Standard)
5P	Butt Weld - 100 mm (4 in) Pipe Pup / Flange - EN Raised Face (B1)
6C	Butt Weld - ANSI B36.10 / Flange - ASME Raised Face (Standard)
6D	Butt Weld - ANSI B36.10 / Flange - EN Raised Face (B1)
6E	Butt Weld - ANSI B36.10 / Flange - ASME Flat Face (Standard)
6F	Butt Weld - ANSI B36.10 / Flange - EN Flat Face (B1)
6G	Butt Weld - ANSI B36.10 / Flange - RTJ
6H	Butt Weld - ANSI B36.10 / Screwed Ends
ZZ	Special

Series	Size	End Connection	Drilling / Schedule	Face-to-Face	Pressure Rating	Body Material	Ball Material	Stem Material	Seat Material	Sealing Material	Operator Mounting Type	Actuation Type	Optional Feature 1	Optional Feature ...
	RASF - 0008	BG	W1	00	P3	CJ	S00	U0	T4	G0	I	L	ENC	JKF

Drilling / Schedule

Code	Description
1A	BSPT / Schedule 40
1C	BSPT / BSPP
1D	BSPT / Schedule 5
1H	Socket Weld / BSPT
1J	Socket Weld / NPT
1K	Socket Weld / BSPP
1L	NPT / Schedule 5
1M	NPT / Schedule 10
1N	NPT / Schedule 40
1Q	NPT / BSPT
1R	NPT / BSPP
1V	Schedule 10 / BSPT
1W	Schedule 10 / NPT
1X	Schedule 10 / BSPP
2C	Schedule 40 / BSPT
2D	Schedule 40 / NPT
2E	Schedule 40 / BSPP
2N	BSPP / Schedule 10
2R	BSPP / BSPT
2S	BSPP / NPT
2T	BSPP / Schedule 5
2U	BSPP / Socket Weld
2W	BSPT / Schedule 10
3B	100 mm (4 in) Pipe Pup / BSPT
3C	100 mm (4 in) Pipe Pup / NPT
3D	100 mm (4 in) Pipe Pup / BSPP
3F	BSPP / 100 mm (4 in) Pipe Pup
3J	NPT / 100 mm (4 in) Pipe Pup
3G	BSPT / 100 mm (4 in) Pipe Pup
3X	BSPP (Female) / PN 10
3V	BSPP (Female) / ASME 600
3Y	BSPP (Female) / PN 16
4A	NPT (Female) / PN 64
4B	NPT (Female) / PN 100
4D	Schedule 10 / ASME 300
4E	Schedule 10 / ASME 600

Code	Description
4G	Schedule 10 / PN 10
4H	Schedule 10 / PN 16
4J	Schedule 10 / PN 25
4K	BSPT (Female) / PN 16
4M	BSPT (Female) / PN 25
4N	BSPT (Female) / PN 40
4P	BSPT (Female) / PN 64
4Q	BSPT (Female) / PN 100
4R	NPT (Female) / ASME 150
4S	NPT (Female) / ASME 300
4T	NPT (Female) / ASME 600
4V	NPT (Female) / PN 10
4W	NPT (Female) / PN 16
4X	NPT (Female) / PN 25
4Y	NPT (Female) / PN 40
5K	Schedule 10 / PN 40
5M	Schedule 10 / PN 64
5N	Schedule 10 / PN 100
5P	Schedule 40 / ASME 150
5Q	Schedule 40 / ASME 300
5R	Schedule 40 / ASME 600
5T	Schedule 40 / PN 10
5U	Schedule 40 / PN 16
5V	Schedule 40 / PN 25
5W	Schedule 40 / PN 40
5X	Schedule 40 / PN 64
5Y	Schedule 40 / PN 100
6A	100 mm (4 in) Pipe Pup / ASME 600
6B	100 mm (4 in) Pipe Pup / ASME 900
6C	100 mm (4 in) Pipe Pup / PN 10
6D	100 mm (4 in) Pipe Pup / PN 16
6E	100 mm (4 in) Pipe Pup / PN 25
6F	100 mm (4 in) Pipe Pup / PN 40
6G	100 mm (4 in) Pipe Pup / PN 64
6H	100 mm (4 in) Pipe Pup / PN 100

Code	Description
6M	Socket Weld / ASME 150
6N	Socket Weld / ASME 300
6P	Socket Weld / ASME 600
6Q	Socket Weld / ASME 900
6R	Socket Weld / PN 10
6S	Socket Weld / PN 16
6T	Socket Weld / PN 25
6U	Socket Weld / PN 40
6V	Socket Weld / PN 64
6W	Socket Weld / PN 100
6X	100 mm (4 in) Pipe Pup / ASME 150
6Y	100 mm (4 in) Pipe Pup / ASME 300
7A	PN 10 / BSPP (Female)
7B	PN 16 / BSPP (Female)
7C	PN 25 / BSPP (Female)
7D	PN 40 / BSPP (Female)
7E	PN 64 / BSPP (Female)
7F	PN 100 / BSPP (Female)
7G	ASME 150 / BSPT (Female)
7H	ASME 300 / BSPT (Female)
7J	ASME 600 / BSPT (Female)
7V	ASME 150 / BSPP (Female)
7W	ASME 300 / BSPP (Female)
7X	ASME 600 / BSPP (Female)

Series	Size	End Connection	Drilling / Schedule	Face-to-Face	Pressure Rating	Body Material	Ball Material	Stem Material	Seat Material	Sealing Material	Operator Mounting Type	Actuation Type	Optional Feature 1	Optional Feature ...
	RASF - 0008	BG	W1	00	P3	CJ	S00	U0	T4	G0	I	L	ENC	JKF

Drilling / Schedule (continued)

Code	Description
8A	PN 25 / NPT (Female)
8B	PN 40 / NPT (Female)
8C	PN 64 / NPT (Female)
8D	PN 100 / NPT (Female)
8E	ASME 150 / Schedule 10
8F	ASME 300 / Schedule 10
8G	ASME 600 / Schedule 10
8J	PN 10 / Schedule 10
8M	PN 10 / BSPT (Female)
8N	PN 16 / BSPT (Female)
8P	PN 25 / BSPT (Female)
8Q	PN 40 / BSPT (Female)
8R	PN 64 / BSPT (Female)
8S	PN 100 / BSPT (Female)
8T	ASME 150 / NPT (Female)
8U	ASME 300 / NPT (Female)
8V	ASME 600 / NPT (Female)
8X	PN 10 / NPT (Female)
8Y	PN 16 / NPT (Female)
9A	PN 64 / Schedule 40
9B	PN 100 / Schedule 40
9M	PN 25 / Schedule 10
9K	PN 16 / Schedule 10
9N	PN 40 / Schedule 10
9P	PN 64 / Schedule 10
9Q	PN 100 / Schedule 10
9R	ASME 150 / Schedule 40
9S	ASME 300 / Schedule 40
9T	ASME 600 / Schedule 40
9V	PN 10 / Schedule 40
9W	PN 16 / Schedule 40
9X	PN 25 / Schedule 40
9Y	PN 40 / Schedule 40

Code	Description
A1	ASME 150
A2	ASME 300
A3	ASME 600
BN	BSPT x NPT
BP	BSPP (Female)
BS	BSPT x Socket Weld
BT	BSPT (Female)
FA	ASME 150 / 100 mm (4 in) Pipe Pup
FB	ASME 300 / 100 mm (4 in) Pipe Pup
FC	ASME 600 / 100 mm (4 in) Pipe Pup
FE	PN 10 / 100 mm (4 in) Pipe Pup
FF	PN 16 / 100 mm (4 in) Pipe Pup
FR	ASME 600 / Socket Weld
FG	PN 25 / 100 mm (4 in) Pipe Pup
FH	PN 40 / 100 mm (4 in) Pipe Pup
FJ	PN 64 / 100 mm (4 in) Pipe Pup
FP	ASME 150 / Socket Weld
FQ	ASME 300 / Socket Weld
FT	PN 10 / Socket Weld
FU	PN 16 / Socket Weld
FV	PN 25 / Socket Weld
FW	PN 40 / Socket Weld
FX	PN 64 / Socket Weld
FY	PN 100 / Socket Weld
GA	BSPP (Female) / ASME 150
GB	BSPP (Female) / ASME 300
KA	BSPP (Female) / PN 25
KB	BSPP (Female) / PN 40
KC	BSPP (Female) / PN 64
KD	BSPP (Female) / PN 100
KF	BSPT (Female) / ASME 300
KG	BSPT (Female) / ASME 600
KJ	BSPT (Female) / PN 10
KK	PN 100 / 100 mm (4 in) Pipe Pup
KM	ASME 150 / Schedule 5
KN	ASME 300 / Schedule 5
KY	100 mm (4 in) Pipe Pup / Schedule 5

Code	Description
NA	Not Applicable (For Valve Center Sections only)
NS	NPT x Socket Weld
NT	NPT (Female)
P2	PN 10
P3	PN 16
P5	PN 25
P6	PN 40
P8	PN 64
P9	PN 100
PB	PN 10 / 16
PG	PN 25 / 40
SE	SAE (Female)
SW	Socket Weld End
W1	Schedule 10
W4	Schedule 40
W5	Schedule 5
ZZ	Special

Series	Size	End Connection	Drilling / Schedule	Face-to-Face	Pressure Rating	Body Material	Ball Material	Stem Material	Seat Material	Sealing Material	Operator Mounting Type	Actuation Type	Optional Feature 1	Optional Feature ...
	RASF	0008	BG	W1	00	P3	CJ	S00	U0	T4	G0	I	L	ENC

Face-to-Face

Code	Description
00*	Standard (Refer to Product Literature)
01	EN558 Series 01
ZZ	Special

Pressure Rating

Code	Description
P3	PN 16
P4	PN 20 / CI150 Metric
30	30 bar / 435 psi
P6	PN 40
P7	PN 50 / CI300 Metric
P8	PN 64
70	70 Bar
80	80 Bar
P9	PN 100
A1	ASME 150
A2	ASME 300
ZZ	Pressure Rating not Specified

Body Material

Code	Description
CJ	Carbon Steel EN 1.0619 (GP240GH)
J1	Stainless Steel 1.4408 (GX5CrNiMo 19-11-2)
ZZ	Special

Ball Material

Code	Description
S00*	Stainless Steel 316
SM5	Stainless Steel 316Ti / ISN 05.11
ZZZ	Special

Stem Material

Code	Description
U0*	Duplex
J6	Stainless Steel EN 1.4404 (X2CrNiMo 17-12-2)
ZZ	Special

Seat Material

Code	Description
RE	RPTFE (Glass Filled)
TH	PTFE - TF4215
U8	UHMWPE
T4*	TFM 1600
MH	Stainless Steel 316Ti (ISN 05.11)
A0	PEEK (Arlon 1330 or equivalent)
ZZ	Special

Sealing Material

Code	Description (Packing / Body Gasket / Retainer Seal)
G0	Graphite
TH	PTFE - TF4215
R7	RPTFE (Glass) + Anti-Static Packing
RA	RPTFE (Glass) - No Anti-Static Packing (NAP)
U1	UHMWPE
ZZ	Special

Operator Mounting Type

Code	Description
I	ISO 5211

Actuation Type

Code	Description
L	Default Handle / Lever
B	Bare Stem

NOTE

* Indicates standard configuration.

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Optional Features

Code	Description
Special Application	
ENC	EN1626 (Valves for Cryogenic Service)
END	EN14432 (Transport of Dangerous Goods)
Jacket Options	
JKF	Full Jacket - Standard Connections
JKC	Center Jacket - Standard Connections
Ball Options	
BVG	Degassing Ball (Body Cavity)
BVE	Vented Ball (Upstream Hole)
BVA	BVG + BVE
Valve Extension Options	
EC6	150 mm Cryogenic Extension
ECC	300 mm Cryogenic Extension
Coating / Painting	
PZZ	Special Painting / Coating (per Purchase Order)
Nameplate / Tagging	
NP1	Additional 316 Stainless Steel Tag (Customer Tag Text)
NP2	Additional Paper Tag (Customer Tag Text)
NPZ	Special Tag / Nameplate (per Customer PO)
Cleaning Procedure	
CLD	Oxygen Service Cleaning
CLE	Oil and Grease Surface Cleaning (GS-40)
CLZ	Special Cleaning (per Purchase Order)

Code	Description
Witness Inspection	
WT1	Witness Inspection - Assembly, Test, Final Visuals (Standard Test Only)
WTZ	Witness Inspection (per Purchase Order incl: Packing, Painting, NDT, etc...)
Material Certificates / Traceability	
MC1	CMTRs (Manufacturer Standard)
MCJ	DIN 2.2 Material Test Reports (EN)
MCZ	Special CMTRs (per Purchase Order)
Positive Material Identification	
ME6	PMI (Body / Shell, Ball, Stem)
MEZ	PMI (per Purchase Order)
Magnetic Particle Examination	
MPZ	Magnetic Particle Examination (per Purchase Order)
Liquid Penetrant Examination	
LPZ	Liquid Penetrant Examination (per Purchase Order)
Radiographic Examination	
RGZ	Radiographic Examination (per Purchase Order)
Pressure Testing	
TPZ	Hydrostatic Test Report (per Purchase Order)
Other Testing	
LTI	Low Temp Impact Test as User Statement

NOTES

1. This document is intended for product model code decodification, not product configuration. Option availability and compatibility may be dependent on the selection of another option. For product configuration support, consult your local Emerson representative.
2. This list of options is not exhaustive. Consult your local Emerson representative for additional options.

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