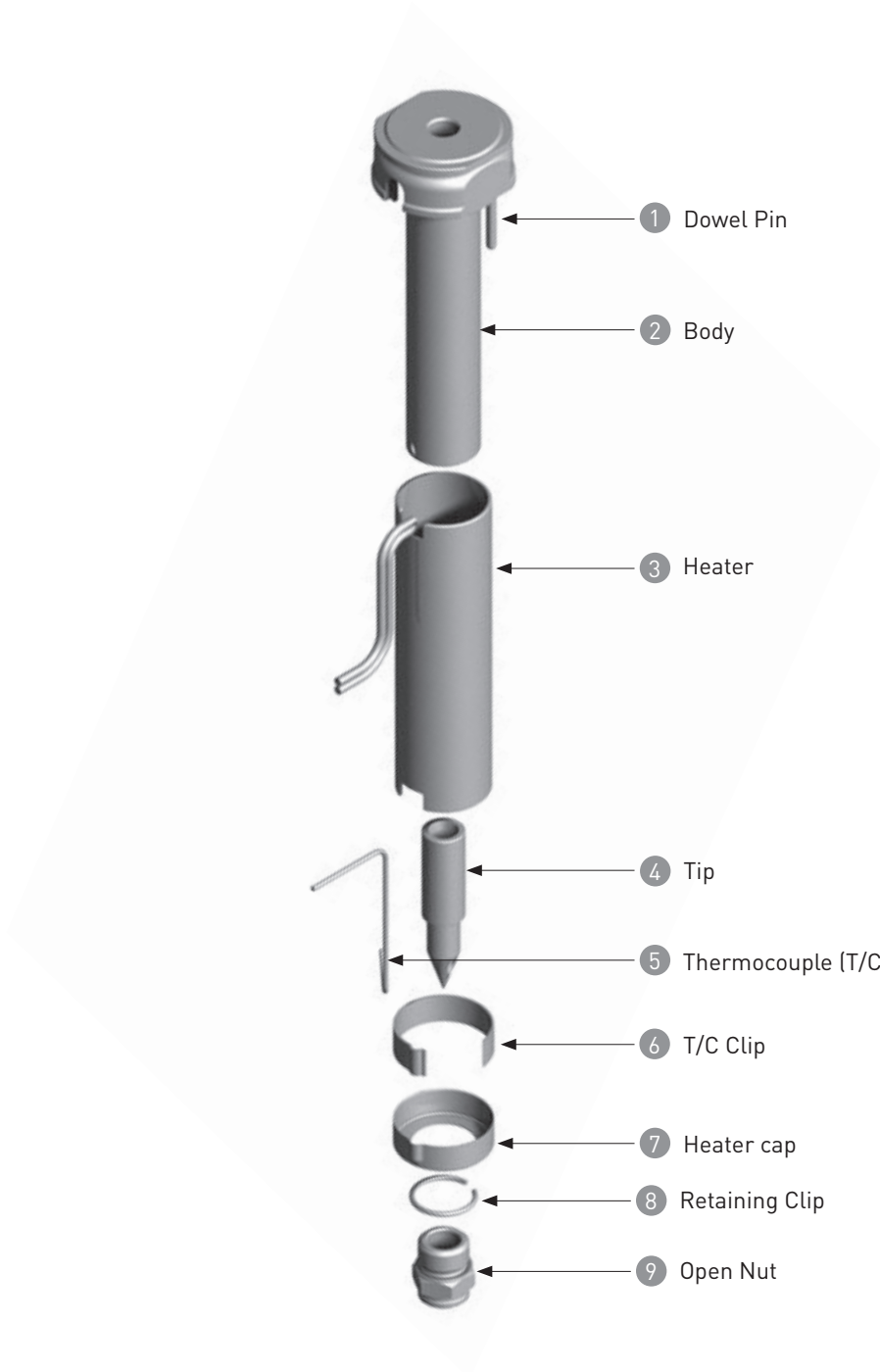


X Range Replacement Parts

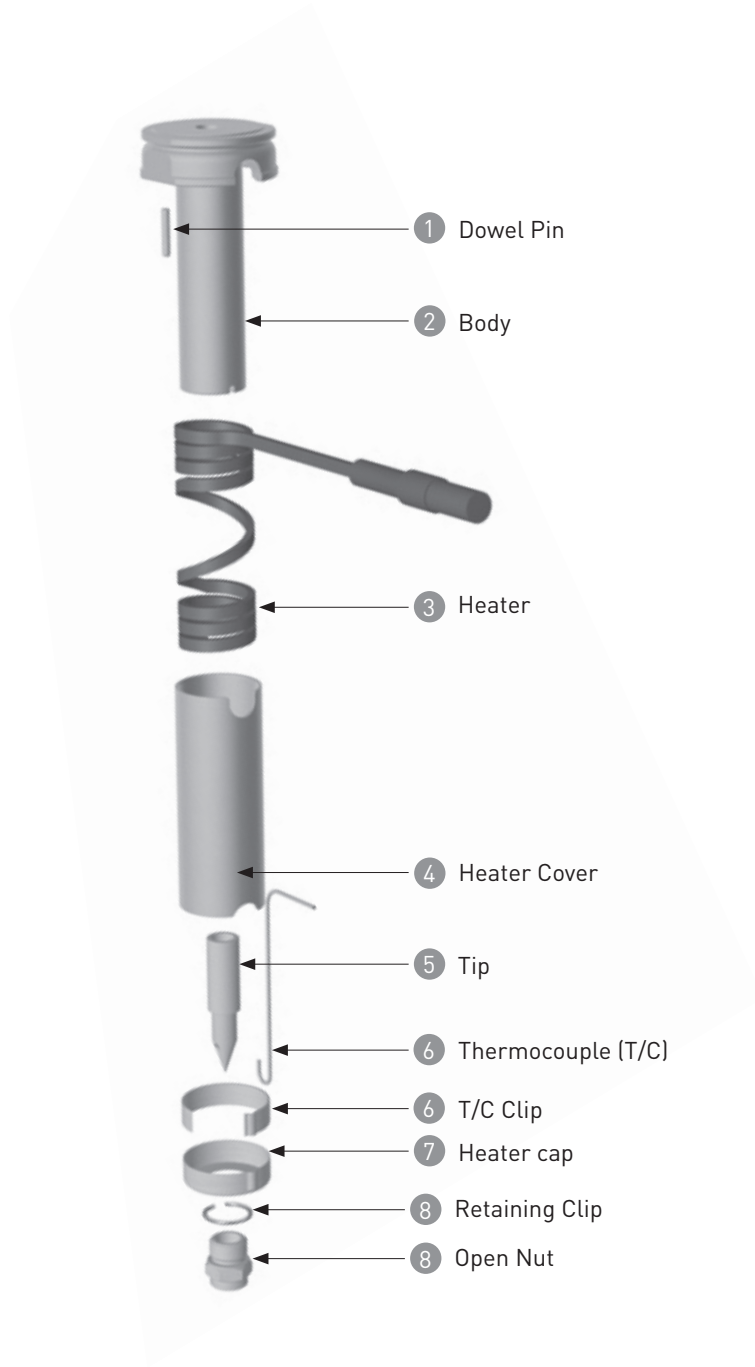
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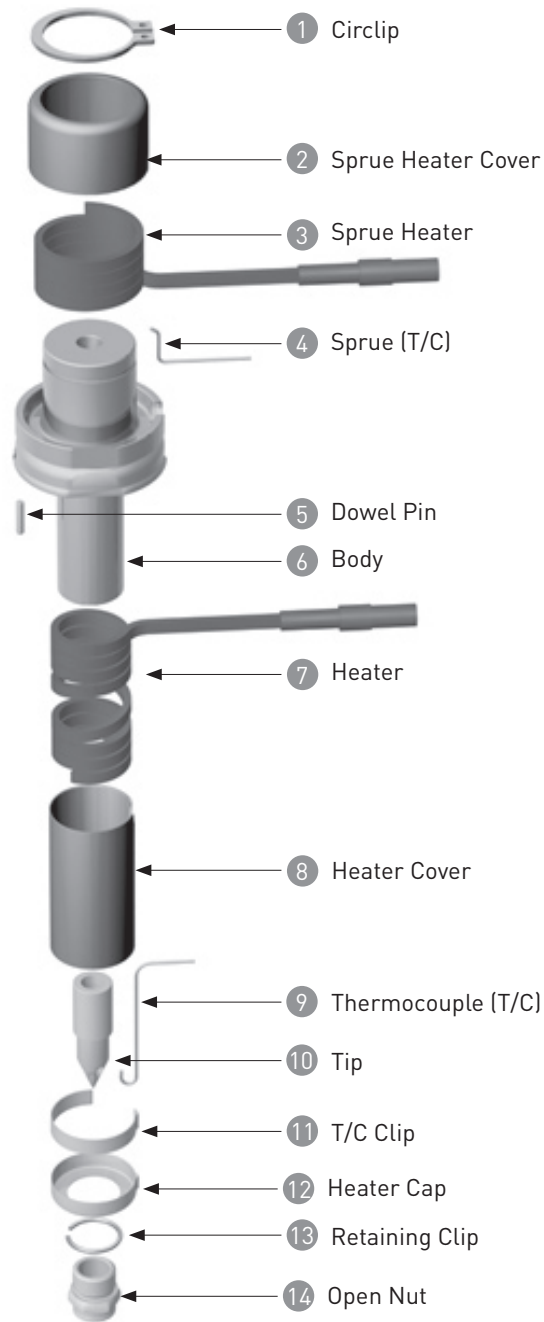
MX Exploded Diagram



BX Exploded Diagram



SX Exploded Diagram



Bodies

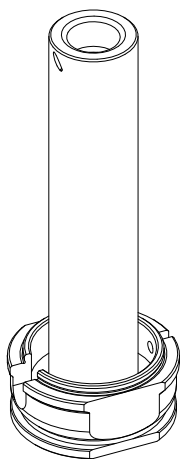
To order a body, use the tables below.

MX Bodies

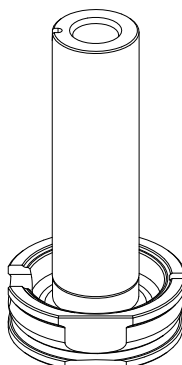
	Length	Code
13	45 mm	MX13045B
13	55 mm	MX13055B
13	65 mm	MX13065B
13	75 mm	MX13075B
13	95 mm	MX13095B
13	115 mm	MX13115B
13	145 mm	MX13145B
13	175 mm	MX13175B
16	45 mm	MX16045B
16	55 mm	MX16055B
16	65 mm	MX16065B
16	75 mm	MX16075B
16	95 mm	MX16095B
16	115 mm	MX16115B
16	145 mm	MX16145B
16	175 mm	MX16175B
19	55 mm	MX19055B
19	65 mm	MX19065B
19	75 mm	MX19075B
19	95 mm	MX19095B
19	115 mm	MX19115B
19	145 mm	MX19145B
19	175 mm	MX19175B

BX Bodies

Series	Length	Code
13	45 mm	BX13045B
13	55 mm	BX13055B
13	65 mm	BX13065B
13	75 mm	BX13075B
13	95 mm	BX13095B
13	115 mm	BX13115B
13	145 mm	BX13145B
13	175 mm	BX13175B
16	45 mm	BX16045B
16	55 mm	BX16055B
16	65 mm	BX16065B
16	75 mm	BX16075B
16	95 mm	BX16095B
16	115 mm	BX16115B
16	145 mm	BX16145B
16	175 mm	BX16175B
19	55 mm	BX19055B
19	65 mm	BX19065B
19	75 mm	BX19075B
19	95 mm	BX19095B
19	115 mm	BX19115B
19	145 mm	BX19145B
19	175 mm	BX19175B
27	75 mm	BX27075B
27	95 mm	BX27095B
27	115 mm	BX27115B
27	145 mm	BX27145B
27	175 mm	BX27175B
27	225 mm	BX27225B
27	275 mm	BX27275B



MX Body



BX Body

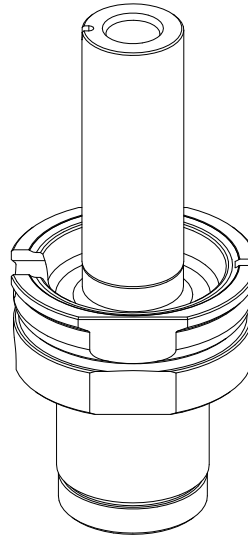
MAS00134

Bodies

To order a body, use the tables below.

SX Bodies

Series	Length	Code
13	45 mm	SX13045B
13	55 mm	SX13055B
13	65 mm	SX13065B
13	75 mm	SX13075B
13	95 mm	SX13095B
13	115 mm	SX13115B
13	145 mm	SX13145B
13	175 mm	SX13175B
16	45 mm	SX16045B
16	55 mm	SX16055B
16	65 mm	SX16065B
16	75 mm	SX16075B
16	95 mm	SX16095B
16	115 mm	SX16115B
16	145 mm	SX16145B
16	175 mm	SX16175B
19	55 mm	SX19055B
19	65 mm	SX19065B
19	75 mm	SX19075B
19	95 mm	SX19095B
19	115 mm	SX19115B
19	145 mm	SX19145B
19	175 mm	SX19175B
27	75 mm	SX27075B
27	95 mm	SX27095B
27	115 mm	SX27115B
27	145 mm	SX27145B
27	175 mm	SX27175B
27	225 mm	SX27225B
27	275 mm	SX27275B



SX Body

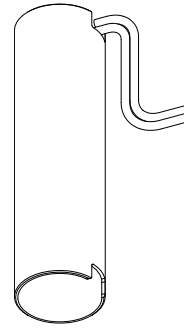
MA500132

Heaters

To order an MX heater, use the table below.

MX Heaters

Series	Nozzle Length	Code
13	45	MX13045HFS
13	55	MX13055HFS
13	65	MX13065HFS
13	75	MX13075HFS
13	95	MX13095HFS
13	115	MX13115HFS
13	145	MX13145HFS
13	175	MX13175HFS
16	45	MX16045HFS
16	55	MX16055HFS
16	65	MX16065HFS
16	75	MX16075HFS
16	95	MX16095HFS
16	115	MX16115HFS
16	145	MX16145HFS
16	175	MX16175HFS
19	55	MX19055HFS
19	65	MX19065HFS
19	75	MX19075HFS
19	95	MX19095HFS
19	115	MX19115HFS
19	145	MX19145HFS
19	175	MX19175HFS



MX Heater

Heaters

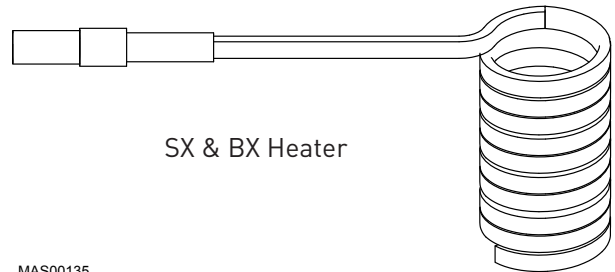
To order a heater and heater cover for a BX or SX nozzle use the table below.

BX and SX Heaters

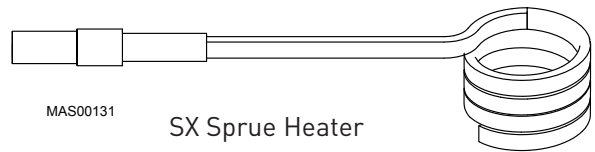
Series	Nozzle Length	Code
13	45	X13045H
13	55	X13055H
13	65	X13065H
13	75	X13075H
13	95	X13095H
13	115	X13115H
13	145	X13145H
13	175	X13175H
16	45	X16045H
16	55	X16055H
16	65	X16065H
16	75	X16075H
16	95	X16095H
16	115	X16115H
16	145	X16145H
16	175	X16175H
19	55	X19055H
19	65	X19065H
19	75	X19075H
19	95	X19095H
19	115	X19115H
19	145	X19145H
19	175	X19175H
27	75	X27075H
27	95	X27095H
27	115	X27115H
27	145	X27145H
27	175	X27175H
27	225	X27225H
27	275	X27275H

SX Sprue Heaters

Series	Code
13	SX24H
16	SX24H
19	SX30H
27	SX30H



SX & BX Heater



SX Sprue Heater

Heaters Covers

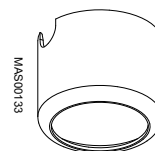
To order an BX or SX heater Cover, use the table below.

BX and SX Heater Covers

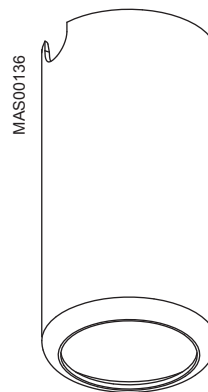
Series	Nozzle Length	Code
13	45	X13045HC
13	55	X13055HC
13	65	X13065HC
13	75	X13075HC
13	95	X13095HC
13	115	X13115HC
13	145	X13145HC
13	175	X13175HC
16	45	X16045HC
16	55	X16055HC
16	65	X16065HC
16	75	X16075HC
16	95	X16095HC
16	115	X16115HC
16	145	X16145HC
16	175	X16175HC
19	55	X19055HC
19	65	X19065HC
19	75	X19075HC
19	95	X19095HC
19	115	X19115HC
19	145	X19145HC
19	175	X19175HC
27	75	X27075HC
27	95	X27095HC
27	115	X27115HC
27	145	X27145HC
27	175	X27175HC
27	225	X27225HC
27	275	X27275HC

SX Sprue Heater Covers

Series	Code
13	SX24SHC
16	SX24SHC
19	SX30SHC
27	SX30SHC



SX Sprue Heater Cover



BX & SX Heater Cover

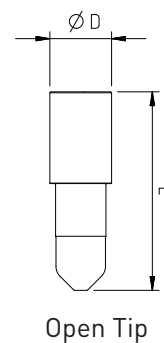
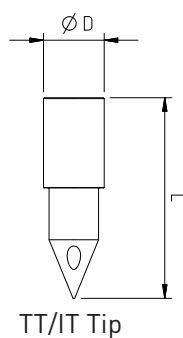
Tips

To order an X Range Tip, use the table below.

Grade	13 Series Code	16 Series Code	19 Series Code
G1	X13ITG1	X16ITG1	X19ITG1
G4	X13ITG4	X16ITG4	X19ITG4
G5	X13ITG5	X16ITG5	X19ITG5
G1	X13IT+5G1	X16IT+5G1	X19IT+5G1
G4	X13IT+5G4	X16IT+5G4	X19IT+5G4
G1	X13IT+10G1	X16IT+10G1	X19IT+10G1
G4	X13IT+10G4	X16IT+10G4	X19IT+10G4
G1	X130TG1	X160TG1	X190TG1
G5	-	-	X190TG5
G1	X13TTG1	X16TTG1	X19TTG1
G4	X13TTG4	X16TTG4	X19TTG4
G5	X13TTG5	X16TTG5	X19TTG5
G1	X13TT+5G1	X16TT+5G1	X19TT+5G1
G4	X13TT+5G4	X16TT+5G4	X19TT+5G4
G1	X13TT+10G1	X16TT+10G1	X19TT+10G1
G4	X13TT+10G4	X16TT+10G4	X19TT+10G4
G1	-	X16TVG1	X19TVG1
G1	-	X160VG1	X190VG1
G5	-	-	X190VG5

Grade	27 Series Code
G1	X27ITG1
G4	X27ITG4
G5	X27ITG5
G1	-
G4	-
G1	X27IT+10G1
G4	X27IT+10G4
G1	X270TG1
G5	X270TG5
G1	X27TTG1
G4	X27TTG4
G5	X27TTG5
G1	-
G4	-
G1	X27TT+10G1
G4	X27TT+10G4
G1	X27TVG1
G1	X270VG1
G5	X270VG5

Series	ØD	L Standard TT/IT Tip*	L Extended +5 TT/IT Tip	L Extended +10 TT/IT Tip	L Open Tip	L Standard TV Tip	L Standard OV Tip
13	8.5 mm	37.5 mm	42.5 mm	47.5 mm	36.5 mm	-	-
16	10.5 mm	40.0 mm	45.0 mm	50.0 mm	38.75 mm	37.2 mm	37.75 mm
19	13.5 mm	44.5 mm	49.5 mm	54.5 mm	43.3 mm	41.35 mm	42.3 mm
27	20.0 mm	59.0 mm	-	69.0 mm	57.4 mm	55.0 mm	55.8 mm



*G5 TT/IT tips are in two pieces: packer and tip. The total length of the two pieces is the same as the Standard TT/IT tip.

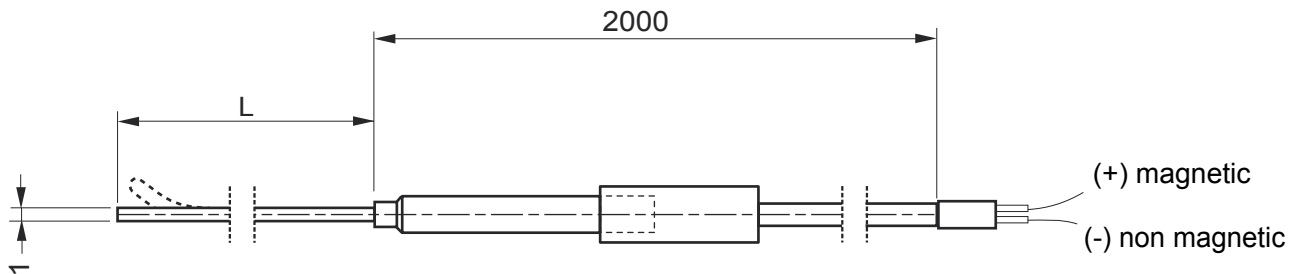
Thermocouples (Fe-CuNi)

To order a J-Type DIN43714 thermocouple for any X Range nozzle, use the table below. Blue (-) Red (+)

Description	Probe Length (L)	Order Code
Grounded T/C with Ø1 mm probe and 2 meter long wire	60 mm	XTCG1X060X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	90 mm	XTCG1X090X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	120 mm	XTCG1X120X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	150 mm	XTCG1X150X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	180 mm	XTCG1X180X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	200 mm	XTCG1X200X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	250 mm	XTCG1X250X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	300 mm	XTCG1X300X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	350 mm	XTCG1X350X2

To order a J-Type ANSI-96.1 thermocouple for any X Range nozzle, use the table below. Red (-) White (+)

Description	Probe Length (L)	Order Code
Grounded T/C with Ø1 mm probe and 2 meter long wire	60 mm	XTCGA1X060X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	90 mm	XTCGA1X090X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	120 mm	XTCGA1X120X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	150 mm	XTCGA1X150X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	180 mm	XTCGA1X180X2
Grounded T/C with Ø1 mm probe and 2 meter long wire	200 mm	XTCGA1X200X2



To determine which thermocouple to order, use the table below.

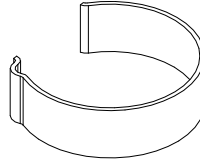
13 Series	16 Series	19 Series	27 Series	DIN43714 Thermocouple Order Code	ANSI 96.1 Thermocouple Order Code
13045	16045	-	-	XTCG1X090X2	XTCGA1X090X2
13055	16055	19055	-	XTCG1X090X2	XTCGA1X090X2
13065	16065	19065	-	XTCG1X120X2	XTCGA1X120X2
13075	16075	19075	27075	XTCG1X120X2	XTCGA1X120X2
13095	16095	19095	27095	XTCG1X150X2	XTCGA1X150X2
13115	16115	19115	27115	XTCG1X150X2	XTCGA1X150X2
13145	16145	19145	27145	XTCG1X180X2	XTCGA1X180X2
13175	16175	19175	27175	XTCG1X200X2	XTCGA1X200X2
-	-	-	27225	XTCG1X300X2	XTCGA1X300X2
-	-	-	27275	XTCG1X350X2	XTCGA1X350X2

Thermocouple Clips, Heater Caps, Snap Rings, and Dowel Pins

Thermocouple (T/C) Clip

To order a T/C clip, use the table below

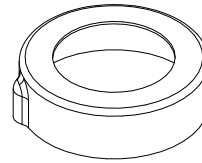
Series	MX Code	BX/SX Code
13	MX13CLIP	X13CLIP
16	MX16CLIP	X16CLIP
19	MX19CLIP	X19CLIP
27	-	X27CLIP



Heater Cap

To order a heater cap, use the table below.

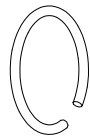
Series	MX Code	BX/SX Code
13	MX13CAP	X13CAP
16	MX16CAP	X16CAP
19	MX19CAP	X19CAP
27	-	X27CAP



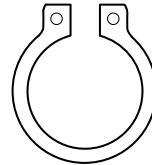
Heater Retaining Snap Clip (or Circlip for 27 Series)

To order a set of 10 retaining rings for any X Range nozzle, use the table below.

Series	Code
13	X13SNAP
16	X16SNAP
19	X19SNAP
27	X27CIRCLIP



13,16,19
Series



27 Series

Dowel Pin

To order a dowel pin for any X Range nozzle, use the table below.

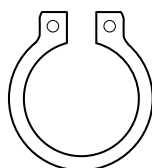
Series	Code
13	MTDP2X12
16	MTDP2.5X12
19	MTDP2.5X12
27	MTDP2.5X12



SX Circlips

To order a set of 10 circlips for any SX nozzle, use the table below.

Series	Code
13	X24C
16	X24C
19	X30C
27	X30C

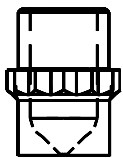


Nuts

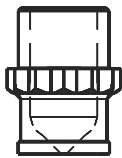
To order a replacement nut, use the following table:

Description	13 Series Code	16 Series Code	19 Series Code
Bush Nut	X13BN	X16BN	X19BN
Bush Nut Full Contact	X13BE	X16BE	X19BE
Open Nut	X13ONT	X16ONT	X19ONT
Sprue Nut +5	X13SN	X16SN	X19SN
Sprue Nut +20	X13SX	X16SX	X19SX
Sprue Nut +35	X13SL	X16SL	X19SL
Valve Bush Nut	-	X16VBE	X19VBE
Valve Sprue Nut	-	X16VSN	X19VSN

Description	27 Series Code
Bush Nut	X27BN
Bush Nut Full Contact	X27BE
Open Nut	X27ONT
Sprue Nut +5	X27SN
Sprue Nut +35	X27SL
Valve Bush Nut	X27BVE
Valve Sprue Nut	X27VSN



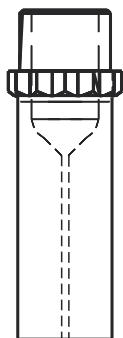
Bush Nut Full Contact



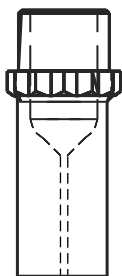
Bush Nut



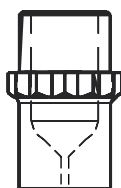
Open Nut



Sprue Nut +35 (SL)



Sprue Nut +20 (SX)



Sprue Nut +5 (SN)