

Multi-Gate Nozzle Side Gating

Gate Options

- One Gate (1S)
- Two Gates (2S)
- Three Gates (3S)
- Four Gates (4S)

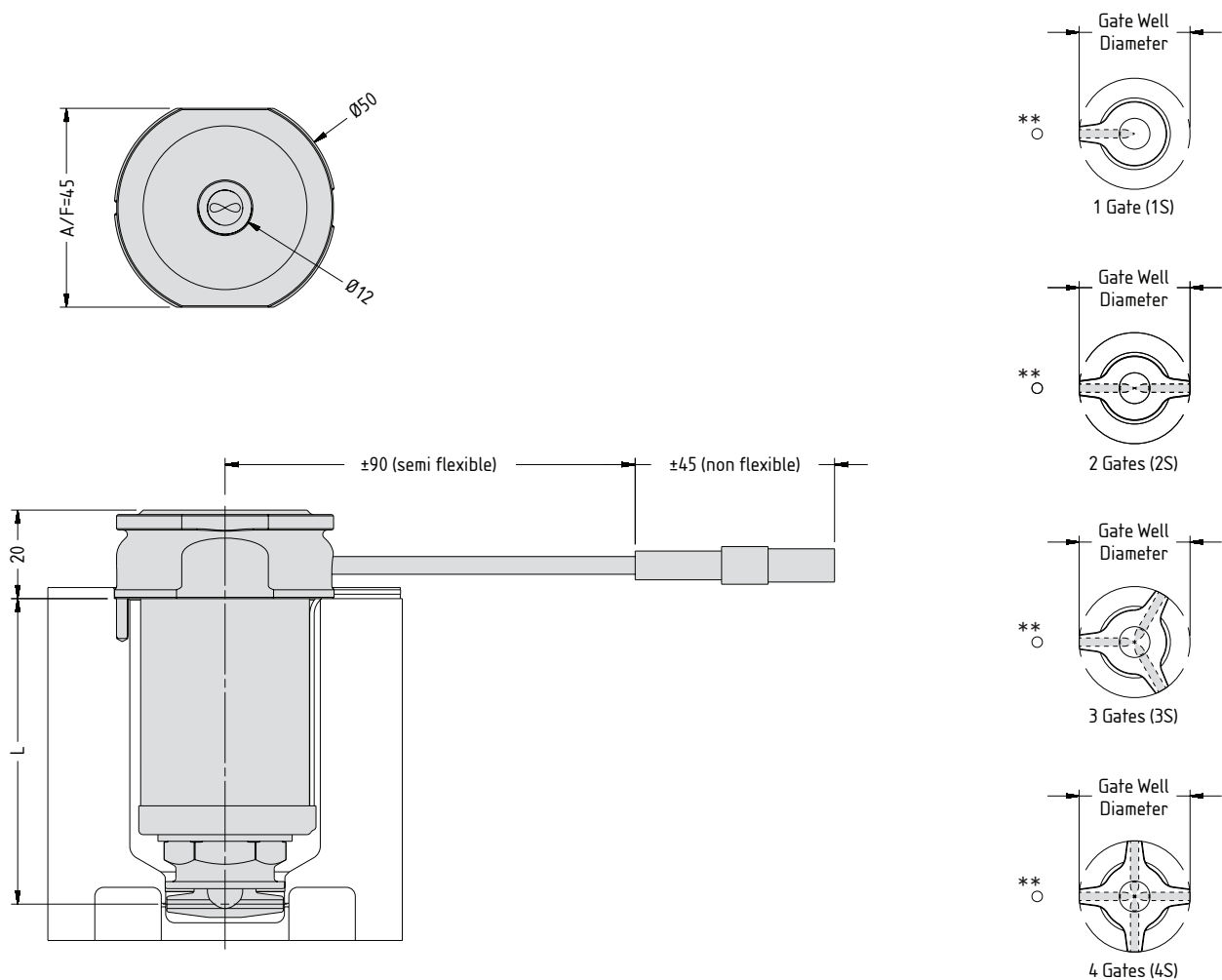
To order a nozzle assembly, provide the Nozzle Range, Number of Gates + Tip Style, Nozzle Series, Nozzle Length, Tip Grade, Nut Grade + Gate Well Diameter

Order example:

Nozzle Range	Number + Tip Styles	Nozzle Series	Nozzle Length	Tip Grade	Nut Grade + Gate Well Diameter*
BM	2S	27	095	G1	H1

*Gate Well Diameter range 22.30-26.80

Nozzle Dimensions



Note

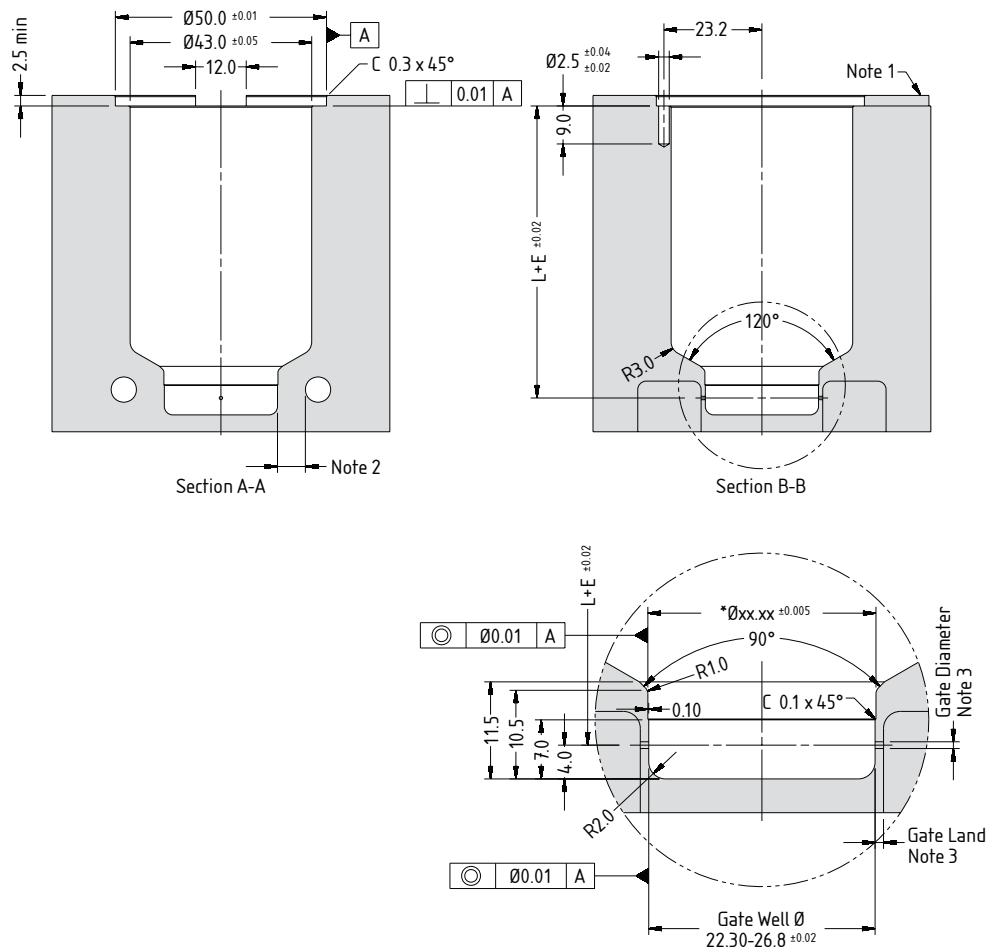
** Indicates dowel position relative to tip.

Nozzle Code 1 Gate	Nozzle Code 2 Gates	Nozzle Code 3 Gates	Nozzle Code 4 Gates	L	$E @ \Delta T = 200^\circ\text{C}$
BM1S27075G1H1	BM2S27075G1H1	BM3S27075G1H1	BM4S27075G1H1	69	0.18
BM1S27095G1H1	BM2S27095G1H1	BM3S27095G1H1	BM4S27095G1H1	89	0.23
BM1S27115G1H1	BM2S27115G1H1	BM3S27115G1H1	BM4S27115G1H1	109	0.29
BM1S27145G1H1	BM2S27145G1H1	BM3S27145G1H1	BM4S27145G1H1	139	0.37
BM1S27175G1H1	BM2S27175G1H1	BM3S27175G1H1	BM4S27175G1H1	169	0.45
BM1S27225G1H1	BM2S27225G1H1	BM3S27225G1H1	BM4S27225G1H1	219	0.58
BM1S27275G1H1	BM2S27275G1H1	BM3S27275G1H1	BM4S27275G1H1	269	0.71

BM nozzles to be used in manifold application only

Nozzle Fitment and Gate Dimensions

$$E = L \times 0.000132 \times (\text{nozzle temp. } ^\circ\text{C} - \text{mould temp. } ^\circ\text{C})$$



Note

- Wire channel to suit mould.
 - Gate cooling is critical for correct operation and gate quality. → See Cooling section in Technical Specifications.
 - Modify gate diameter and land to suit the part. Gate diameter and gate land should not exceed 70% of part wall thickness.
 - Minimum strength (σ_y) of nozzle plate 800MPa.
- * \varnothing xx.xx dimensions will be supplied on order with approval drawing.

Gate Options

- One Gate (1S)
- Two Gates (2S)
- Three Gates (3S)
- Four Gates (4S)

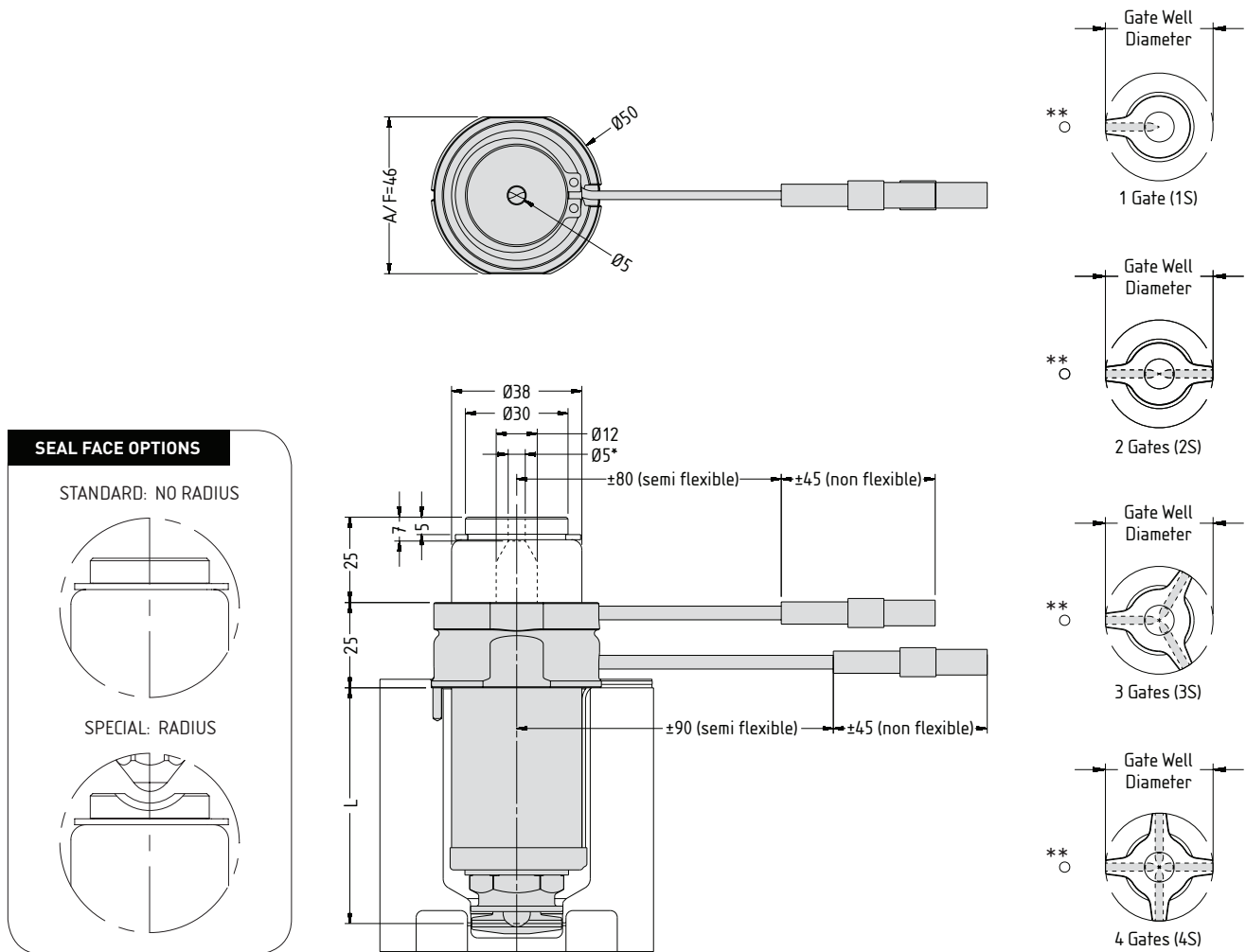
To order a nozzle assembly, provide the Nozzle Range, Number of Gates + Tip Style, Nozzle Series, Nozzle Length, Tip Grade, Nut Grade + Gate Well Diameter

Order example:

Nozzle Range	Number of Gates	Tip Styles	Nozzle Series	Nozzle Length	Tip Grade	Nut Grade + Gate Well Diameter*
SM	2S		27	095	G1	H1

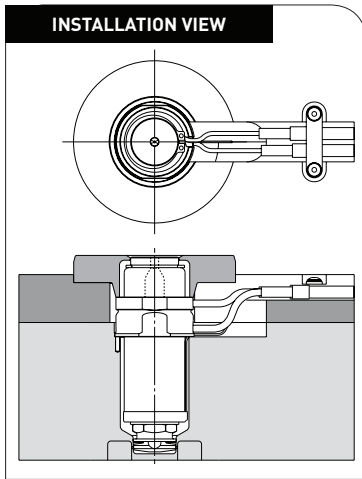
*Gate Well Diameter range 22.30-26.80

Nozzle Dimensions



Note

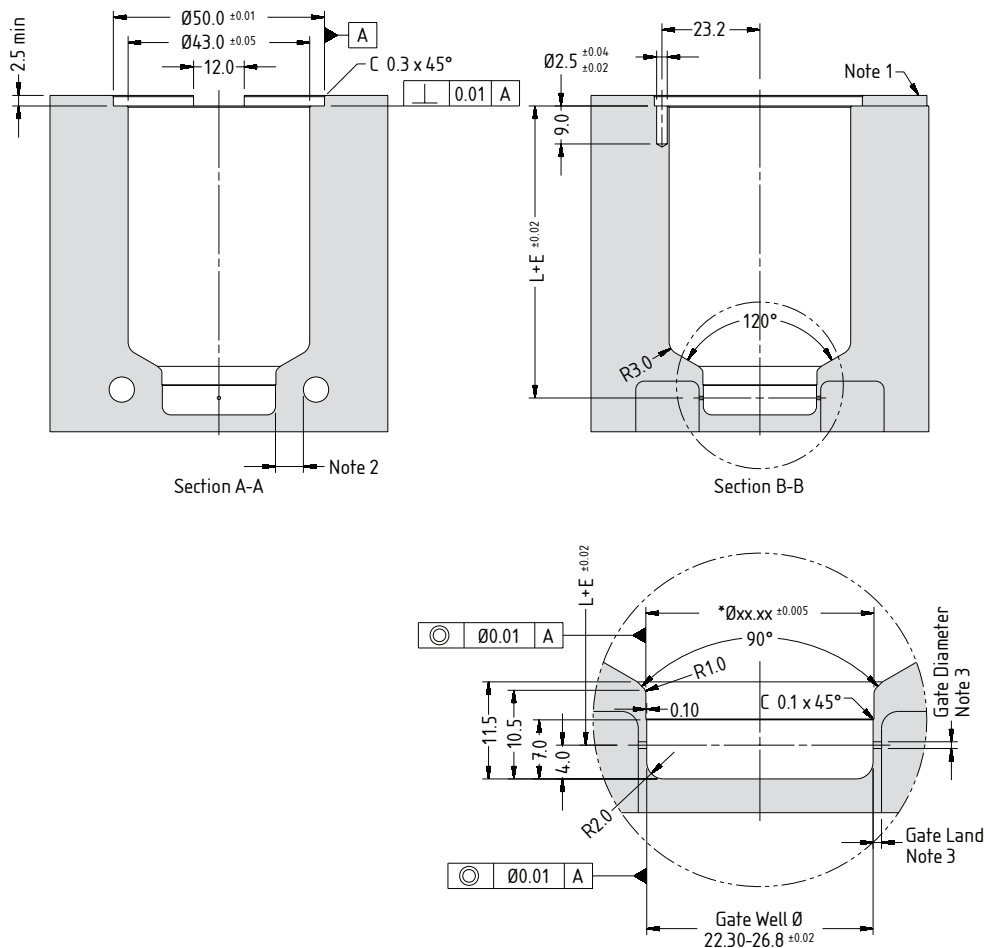
- Before restarting the nozzle remove any plastic residue from nozzle seal face to avoid damaging the nozzle.
- * Open to suit machine nozzle size.
- ** Indicates dowel position relative to tip.



Nozzle Code 1 Gate	Nozzle Code 2 Gates	Nozzle Code 3 Gates	Nozzle Code 4 Gates	L	$E/\Delta T$ =200°C
SM1S27075G1H1	SM2S27075G1H1	SM3S27075G1H1	SM4S27075G1H1	69	0.18
SM1S27095G1H1	SM2S27095G1H1	SM3S27095G1H1	SM4S27095G1H1	89	0.23
SM1S27115G1H1	SM2S27115G1H1	SM3S27115G1H1	SM4S27115G1H1	109	0.29
SM1S27145G1H1	SM2S27145G1H1	SM3S27145G1H1	SM4S27145G1H1	139	0.37
SM1S27175G1H1	SM2S27175G1H1	SM3S27175G1H1	SM4S27175G1H1	169	0.45
SM1S27225G1H1	SM2S27225G1H1	SM3S27225G1H1	SM4S27225G1H1	219	0.58
SM1S27275G1H1	SM2S27275G1H1	SM3S27275G1H1	SM4S27275G1H1	269	0.71

Nozzle Fitment and Gate Dimensions

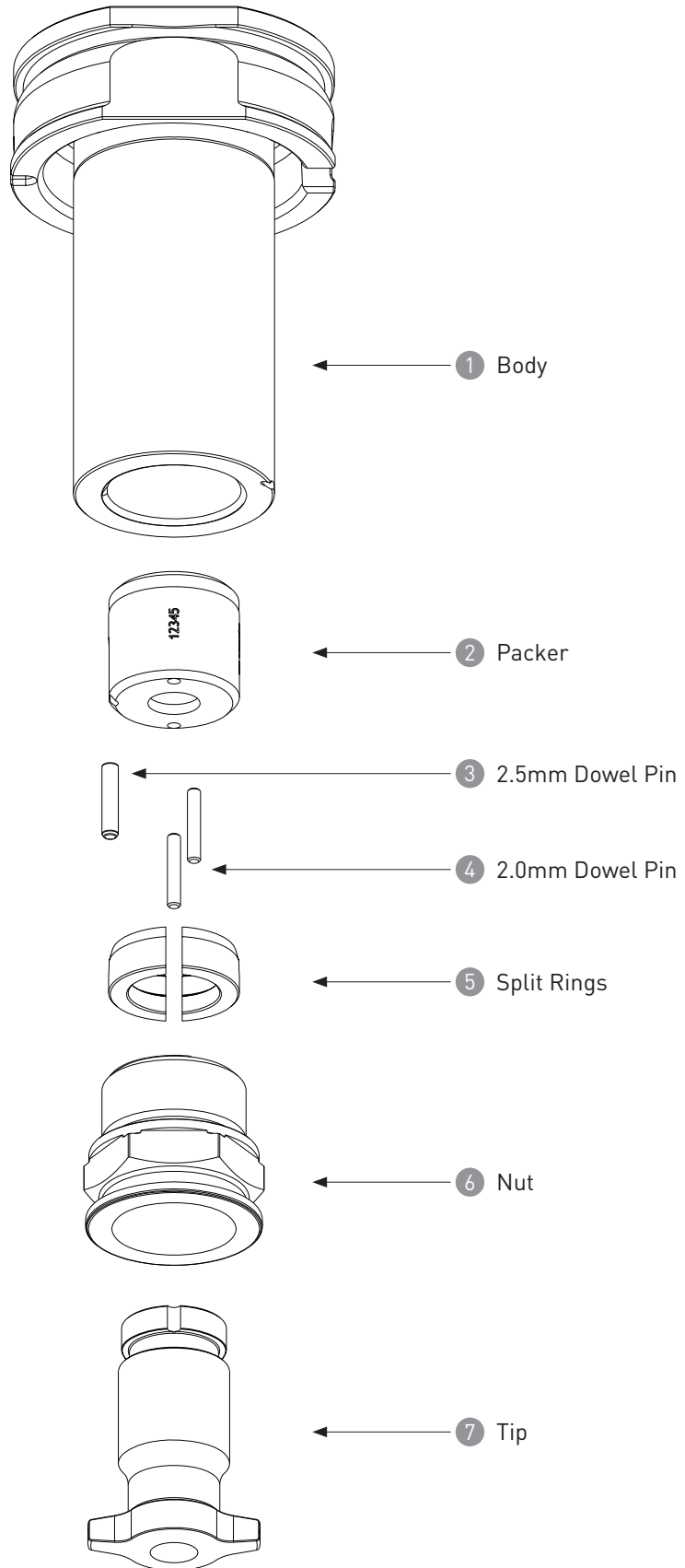
$$E = L \times 0.0000132 \times (\text{nozzle temp. } ^\circ\text{C} - \text{mould temp. } ^\circ\text{C})$$



Note

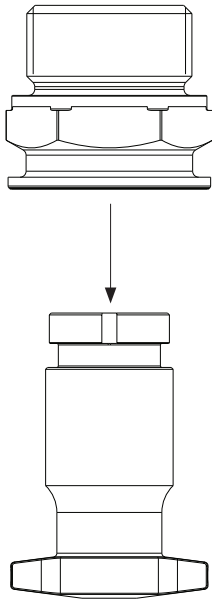
- Wire channel to suit mould.
 - Gate cooling is critical for correct operation and gate quality. → See Cooling section in Technical Specifications.
 - Modify gate diameter and land to suit the part. Gate diameter and gate land should not exceed 70% of part wall thickness.
 - Minimum strength (σ_t) of nozzle plate 800MPa.
- * Ø xx.xx dimensions will be supplied on order with approval drawing.

Exploded Diagram



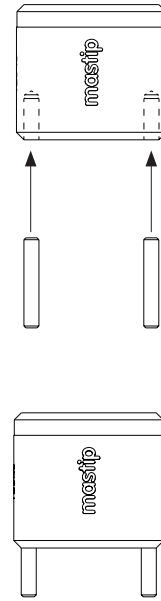
Installation

ONE



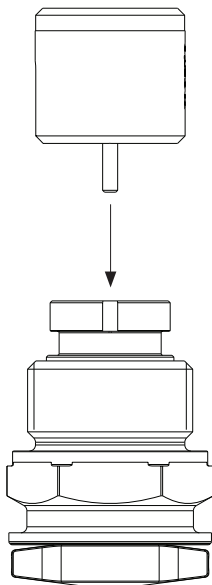
Place a small amount of supplied heat resistant nickel based anti-seize grease on the thread of the **Nut 6**. Fit the **Nut 6** over the **Tip 7**.

TWO



Insert the 2 x 2.0mm **Dowel Pins 4** into the **Packer 2**.

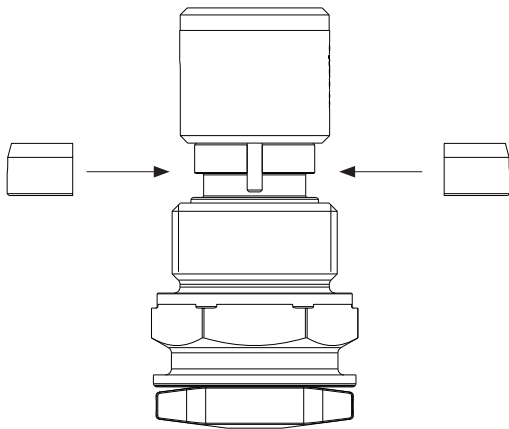
THREE



Fit the assembled **Packer 2** and 2.0mm **Dowel Pins 4** into the slots in the **Tip 7**. Ensure the 2.0mm **Dowel Pins 4** are not preventing the **Packer 2** from making contact with the **Tip 7**.

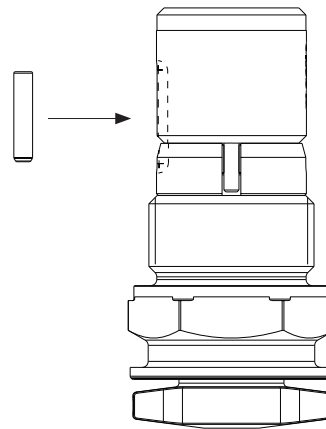
INSTALLATION CONT.....

FOUR



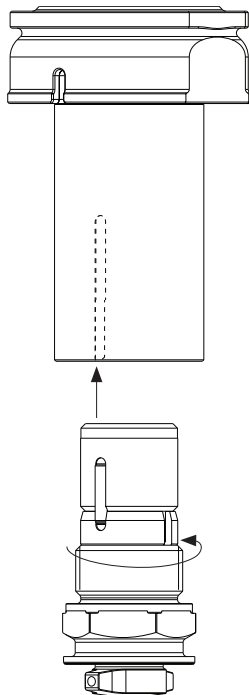
Fit the 2 x **Split Rings** ⑤ into the groove in the **Tip** ⑦ thereby retaining the **Nut** ⑥.

FIVE



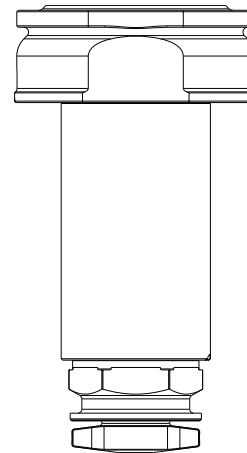
Fit the 2.5mm **Dowel Pin** ③ into the **Packer** ② and **Split Rings** ⑤.

SIX



Align the 2.5mm **Dowel Pin** ③ with the slot in the **Body** ① and insert until the thread of the **Nut** ⑥ comes into contact with the **Body** ①. Screw the **Nut** ⑥ into the **Body** ①. Tighten the **Nut** ⑥ to a torque setting of 30Nm.

SEVEN



Multi-Gate Nozzle Assembly complete.
Complete Heater and Thermocouple assembly, see Technical Specifications Guide.



Mastip Head Office New Zealand

Physical Address

558 Rosebank Road, Avondale
Auckland 1026, New Zealand

Postal Address

PO Box 90651, Victoria St West
Auckland 1142, New Zealand

Phone: +64 9 970 2100
Email: mastip@mastip.com

Mastip Regional Office Europe

Phone: +33 0 809 400 076
Email: europe@mastip.com

Mastip Regional Office North America

Phone: +1 262 644 9400
Email: northamerica@mastip.com

Mastip Regional Office China

Email: china@mastip.com

For a full list of Distributors,
please visit www.mastip.com