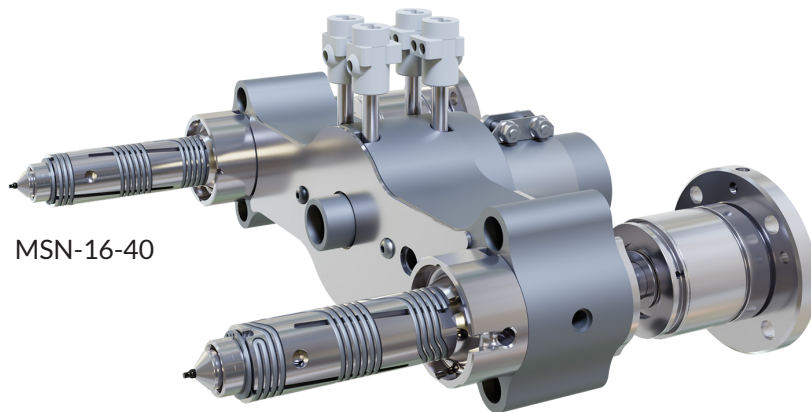




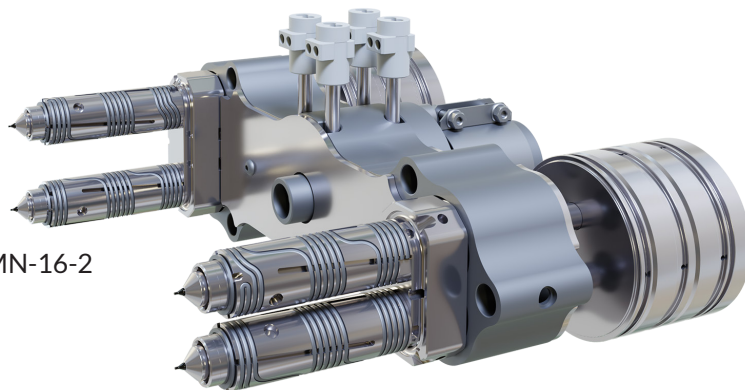
BARNES™
MOLDING SOLUTIONS

HOT RUNNER TECHNOLOGY

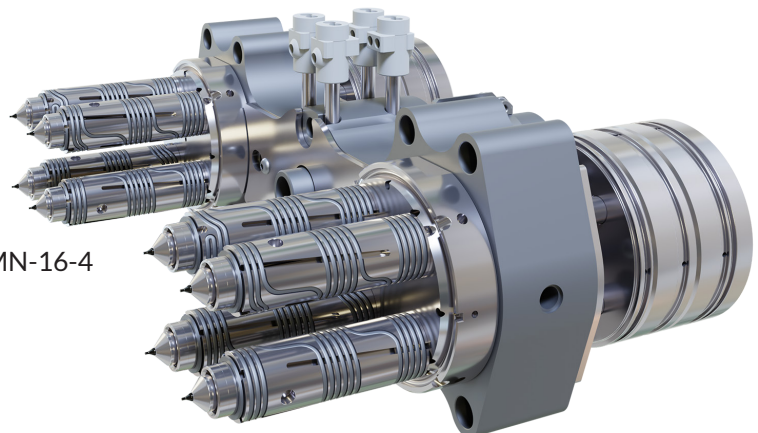
M16 Signature Line Product Catalog



MSN-16-40



MMN-16-2



MMN-16-4



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Hot Runner Technology

This catalog gives an overview of the latest product, including descriptions, dimensions and technical data. The text next to the graphics gives additional instructions on the use of the product. If available, options are explained with pictures and text. All available accessories for this product are specified. Where necessary, a separate chapter gives the information and important technical data.

General Description of the Nozzle

Hot runner nozzles are the connection to the cavity. They either gate directly into the part or into a sub runner which will feed into the cavity.

General Description of 16 Nozzle Series

This is a standard Molding solutions Nozzle.

Target Group

The target groups of this product catalog are mold designers, toolmakers, molders and service technicians. They will find the needed information in the relevant chapters.

Applied Standards and Norms

- DIN EN IEC/IEEE 82079-1 Edition 2 Creation of usage information for products
- Standard and norms for Technical drawings

Tolerances and Customer Graphics

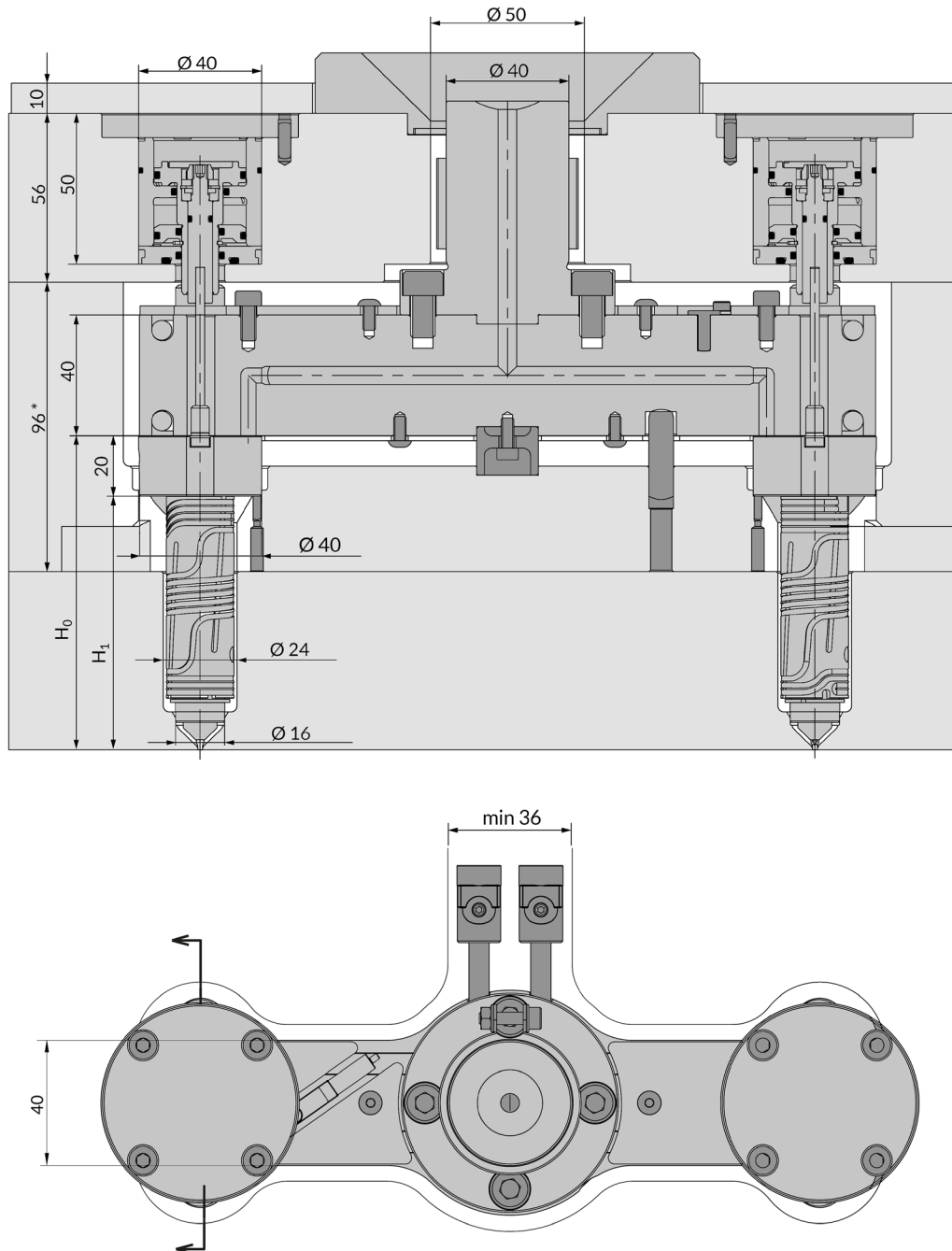
The product catalog gives a general information about the product. For tolerances and other details, use the customer drawings. There you find the detailed information.



Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

Bolt Down Manifold

The following picture shows the standard design, components and dimensions.



*

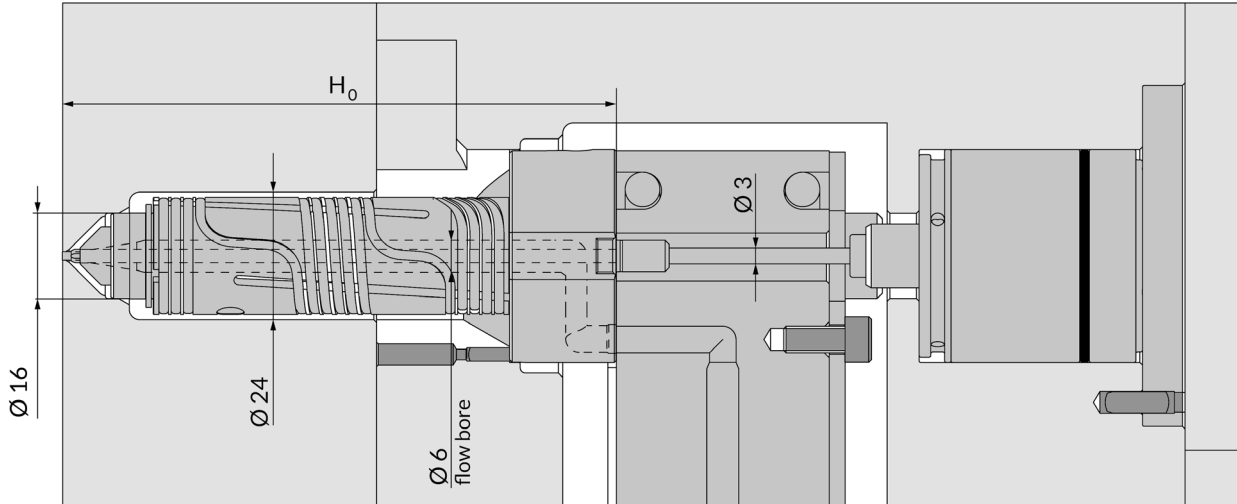
Hot Runner Plate height depending to H_1 .



Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

Available Actuator PS 40.2 pneumatic

The following standard actuator is available. Other actuators can be used on request.



Technical Data

Pressure:
6 bar (87 psi)
Min/Max Close Forces:
F open max = 589 N
F close max = 695 N
Stroke:
8 mm



Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

One Drop Nozzle

The actuator PS 40.2 is used for this nozzle.

MSN-16-40-S16			
H ₀	H ₁	Code	DTE Watt
079	59	MSN-16-40-S16-079	350 W
104	84	MSN-16-40-S16-104	350 W
129	109	MSN-16-40-S16-129	450 W
154	134	MSN-16-40-S16-154	450 W

MSN-16-40-SE16			
H ₀	H ₁	Code	DTE Watt
079	59	MSN-16-40-SE16-079	350 W
104	84	MSN-16-40-SE16-104	350 W
129	109	MSN-16-40-SE16-129	450 W
154	134	MSN-16-40-SE16-154	450 W

MCN-16-40-S16			
H ₀	H ₁	Code	DTE Watt
179	159	MCN-16-40-S16-179	600 W
204	184	MCN-16-40-S16-204	700 W
229	209	MCN-16-40-S16-229	700 W
254	234	MCN-16-40-S16-254	700 W
279	259	MCN-16-40-S16-279	700 W

Example nozzle code: **MSN-16-40-S16-154**

Tip style (S16 - SE16) ———
Nozzle length ———

Nozzle Tip Styles S16 and SE16

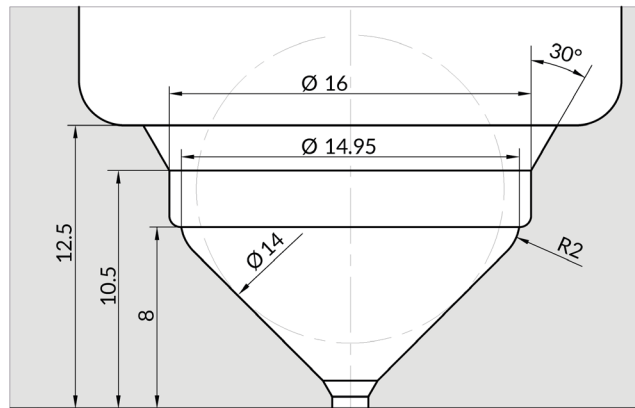
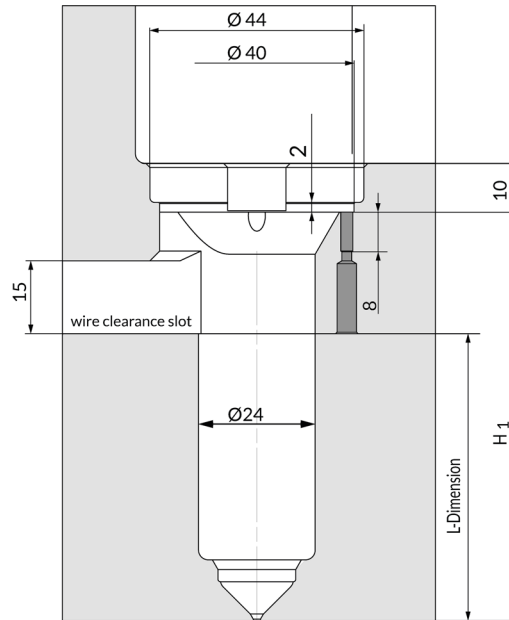
Valve gate - Straight pin		
Tip Style with Description	Picture	Gate diameter
S16 Standard		Ø 0,8 Ø 1,0 Ø 1,2 Ø 1,5
SE16 Special Execution		Ø 0,8 Ø 1,0 Ø 1,2 Ø 1,5



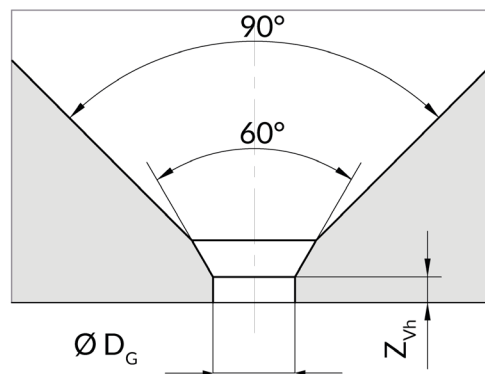
Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.
Dimensions for reference only. Reference system drawing for complete dimensions prior to machining gate detail in mold.

Cutout Dimensions MSN-16 / MCN-16

The following pictures shows the cutout dimensions for this nozzle.



Abbr.	Written out
Dg	Gate Diameter
Zvh	Cylindrical Gate height

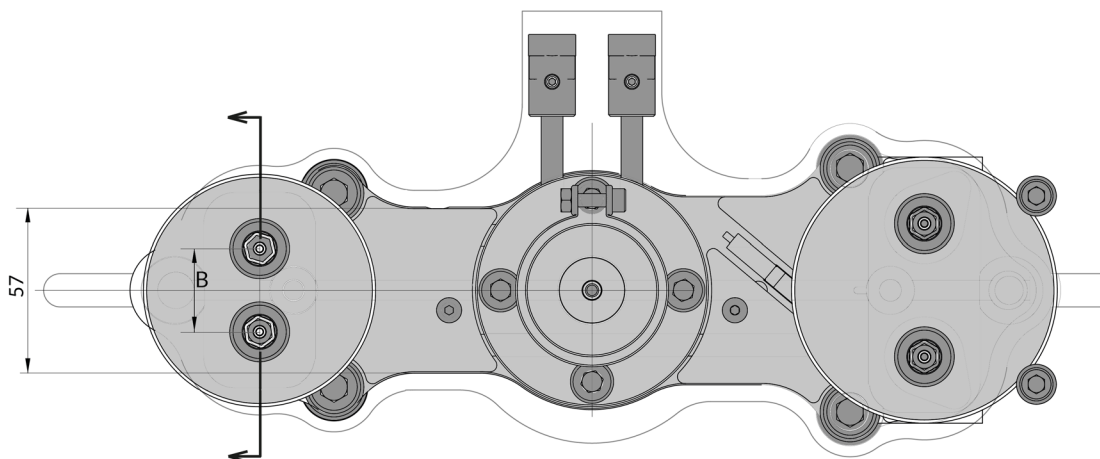




Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

Two Drops Nozzles

The actuator PS70.2-2 is used.



MMN-16-2_B-S16				
H ₀	H ₁	B	Code	DTE Watt
79	62	25	MMN-16-2_25-S16-079	350 W
		30	MMN-16-2_30-S16-079	350 W
		35	MMN-16-2_35-S16-079	350 W
104	87	25	MMN-16-2_25-S16-104	350 W
		30	MMN-16-2_30-S16-104	350 W
		35	MMN-16-2_35-S16-104	350 W
129	112	25	MMN-16-2_25-S16-129	450 W
		30	MMN-16-2_30-S16-129	450 W
		35	MMN-16-2_35-S16-129	450 W

MMN-16-2_B-SE16				
H ₀	H ₁	B	Code	DTE Watt
79	62	25	MMN-16-2_25-SE16-079	350 W
		30	MMN-16-2_30-SE16-079	350 W
		35	MMN-16-2_35-SE16-079	350 W
104	87	25	MMN-16-2_25-SE16-104	350 W
		30	MMN-16-2_30-SE16-104	350 W
		35	MMN-16-2_35-SE16-104	350 W
129	112	25	MMN-16-2_25-SE16-129	450 W
		30	MMN-16-2_30-SE16-129	450 W
		35	MMN-16-2_35-SE16-129	450 W

Example nozzle code: **MMN-16-2_30-S16-104**

Nozzles Pitch distance (25-40)

Tip style (S16 - SE16)

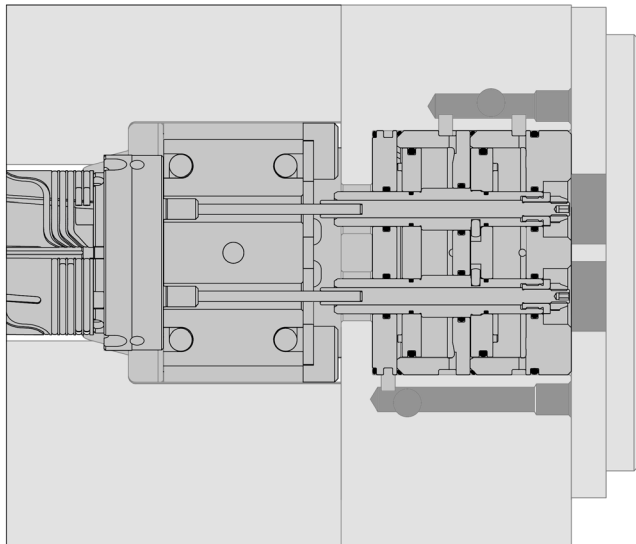
Nozzle length



Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

Available Actuator PS 70.2-2 pneumatic

The following standard actuator is available. Other actuators can be used on request.



Technical Data

Pressure:
6 bar (87 psi)
Min/Max Close Forces:
F open max = 3162 N
F close max = 3162 N
Stroke:
8 mm

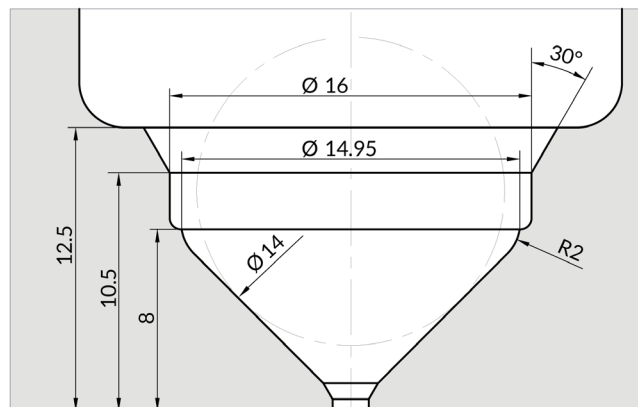
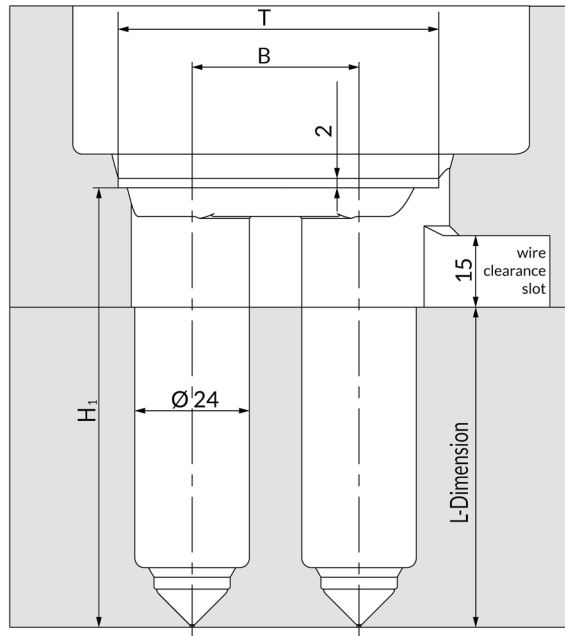


Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.
Dimensions for reference only. Reference system drawing for complete dimensions prior to machining gate detail in mold.

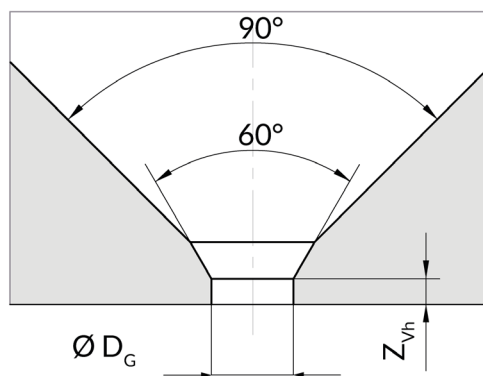
Cutout Dimensions MMN-16-2

The following pictures shows the cutout dimensions for this nozzle.

B	T	U
25	56	31
30	61	31
35	66	31



Abbr.	Written out
Dg	Gate Diameter
Zvh	Cylindrical Gate height

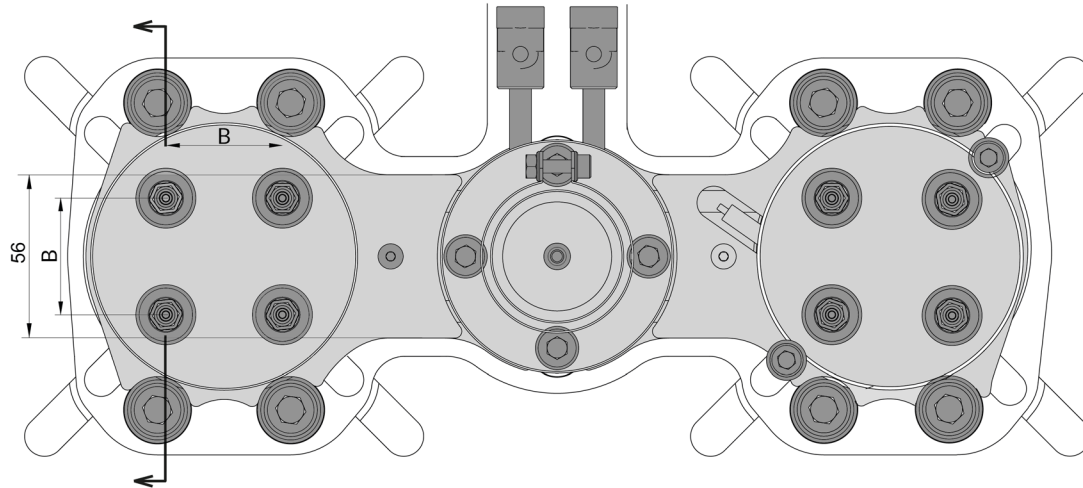




Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

Four Drops Nozzle

The actuators PS 70.2-4 or PS 80.2-4 are used.



MMN-16-4_B-S16

H ₀	H ₁	B	Code	DTE Watt	Actuator
79	62	25	MMN-16-4_25-S16-079	350 W	PS 70.2-4_25
		30	MMN-16-4_30-S16-079	350 W	PS 70.2-4_30
		35	MMN-16-4_35-S16-079	350 W	PS 80.2-4_35
104	87	25	MMN-16-4_25-S16-104	350 W	PS 70.2-4_25
		30	MMN-16-4_30-S16-104	350 W	PS 70.2-4_30
		35	MMN-16-4_35-S16-104	350 W	PS 80.2-4_35
129	112	25	MMN-16-4_25-S16-129	450 W	PS 70.2-4_25
		30	MMN-16-4_30-S16-129	450 W	PS 70.2-4_30
		35	MMN-16-4_35-S16-129	450 W	PS 80.2-4_35

Example nozzle code:

MMN-16-4_30-S16-079

Nozzle Pitch
distance (25-35) ↑

Tip style (S16 - SE16) ↑

Nozzle length ↑

MMN-16-4_B-SE16

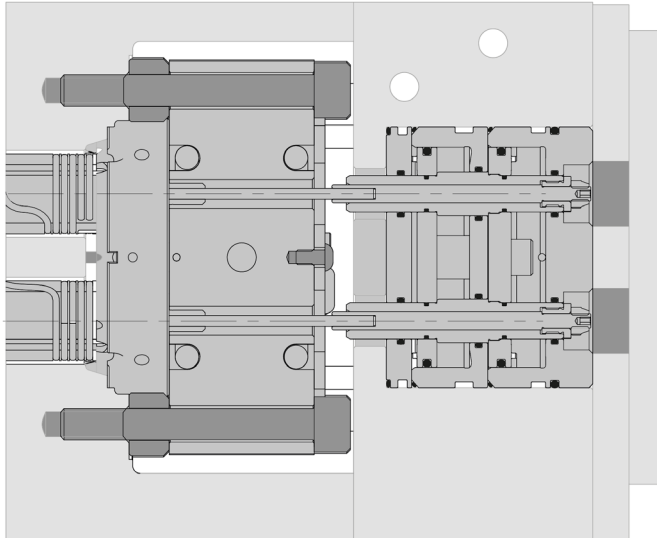
H ₀	H ₁	A	Code	DTE Watt	Actuator
79	62	25	MMN-16-4_25-SE16-079	350 W	PS 70.2-4_25
		30	MMN-16-4_30-SE16-079	350 W	PS 70.2-4_30
		35	MMN-16-4_35-SE16-079	350 W	PS 80.2-4_35
104	87	25	MMN-16-4_25-SE16-104	350 W	PS 70.2-4_25
		30	MMN-16-4_30-SE16-104	350 W	PS 70.2-4_30
		35	MMN-16-4_35-SE16-104	350 W	PS 80.2-4_35
129	112	25	MMN-16-4_25-SE16-129	450 W	PS 70.2-4_25
		30	MMN-16-4_30-SE16-129	450 W	PS 70.2-4_30
		35	MMN-16-4_35-SE16-129	450 W	PS 80.2-4_35



Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.

Available Actuators PS 70.2-4 and PS 80.2-4 pneumatic

The following standard actuators are available. Other actuators can be used on request.



Technical Data PS 70.2-4

Pressure:
6 bar (87 psi)
Min/Max Close Forces:
F open max = 2933 N
F close max = 2933 N
Stroke:
8 mm

Technical Data PS 80.2-4

Pressure:
6 bar (87 psi)
Min/Max Close Forces:
F open max = 4158 N
F close max = 4158 N
Stroke:
8 mm

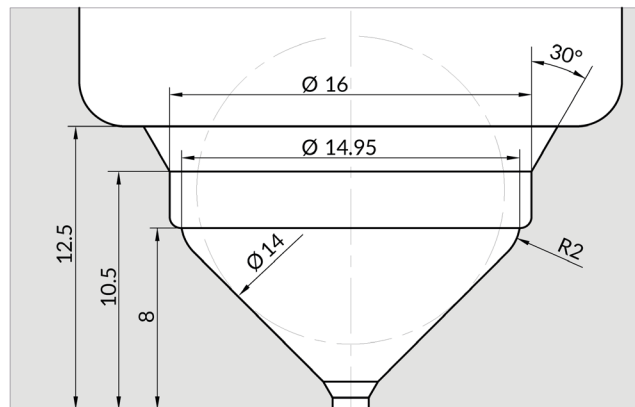
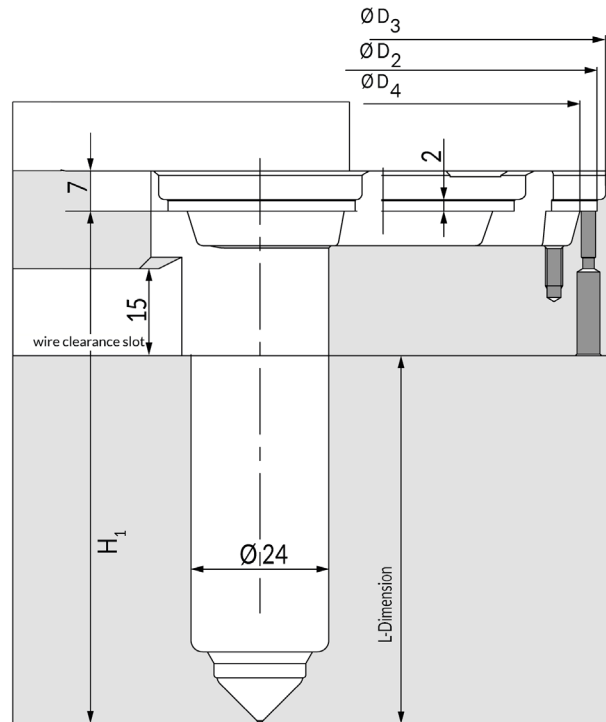


Illustrations simplified, schematically drawn and not to scale. All dimensions in mm.
Dimensions for reference only. Reference system drawing for complete dimensions prior to machining gate detail in mold.

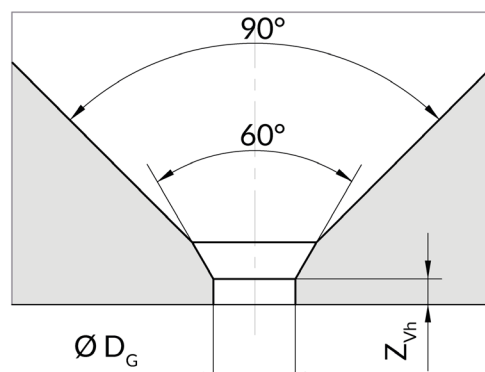
Cutout Dimensions MMN-16-4

The following pictures shows the cutout dimensions for this nozzle.

B	D ₂	D ₃	D ₄
25	70	73	64
30	75	78	69
35	80	83	74



Abbr.	Written out
Dg	Gate Diameter
Zvh	Cylindrical Gate height





Contact

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