

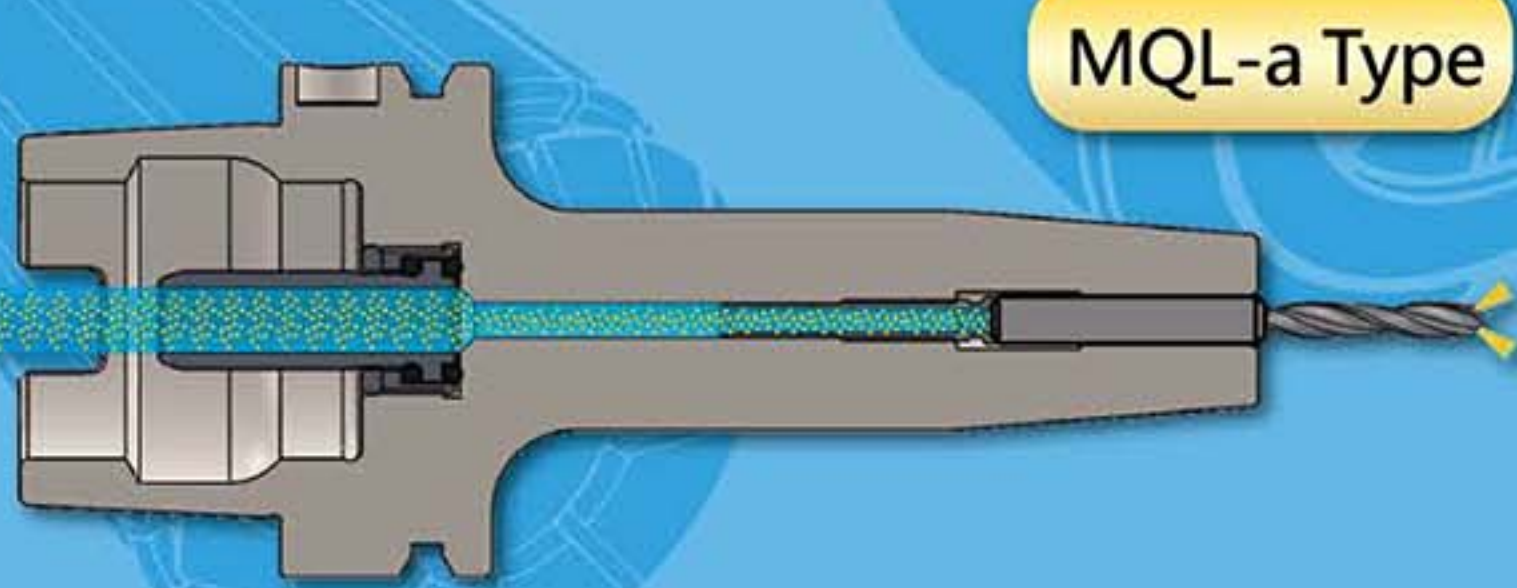
MQL Tool Holder

for Minimum Quantity Lubrication

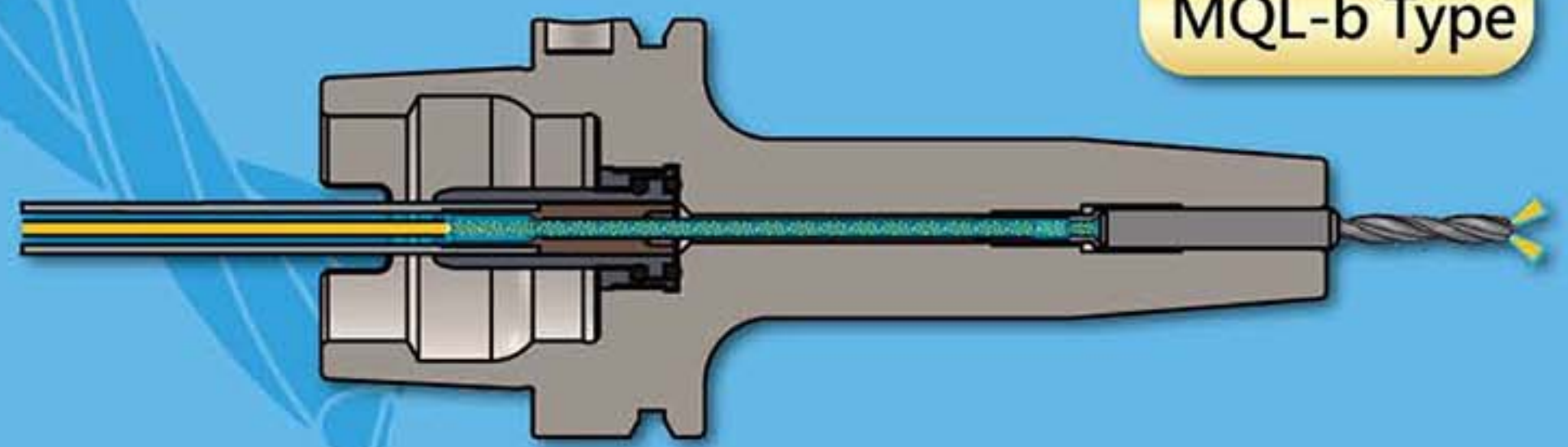


What is MQL?

MQL is a near dry machining with compressed air stream and minimal quantities of oil lubrication in an aerosol format to the cutting surface.



MQL-a Type



MQL-b Type

Advantages:

- ▶ Reduce manufacturing cost due to less usage of cooling lubricant.
- ▶ Lower the cost of component cleaning and lubricant disposal.
- ▶ Save the space for big water tank and use the space efficiently.
- ▶ Provide effective cooling, increasing cutting speed and extending tool life.
- ▶ Provide a healthier working environment to operators.



MQL TECHNOLOGY

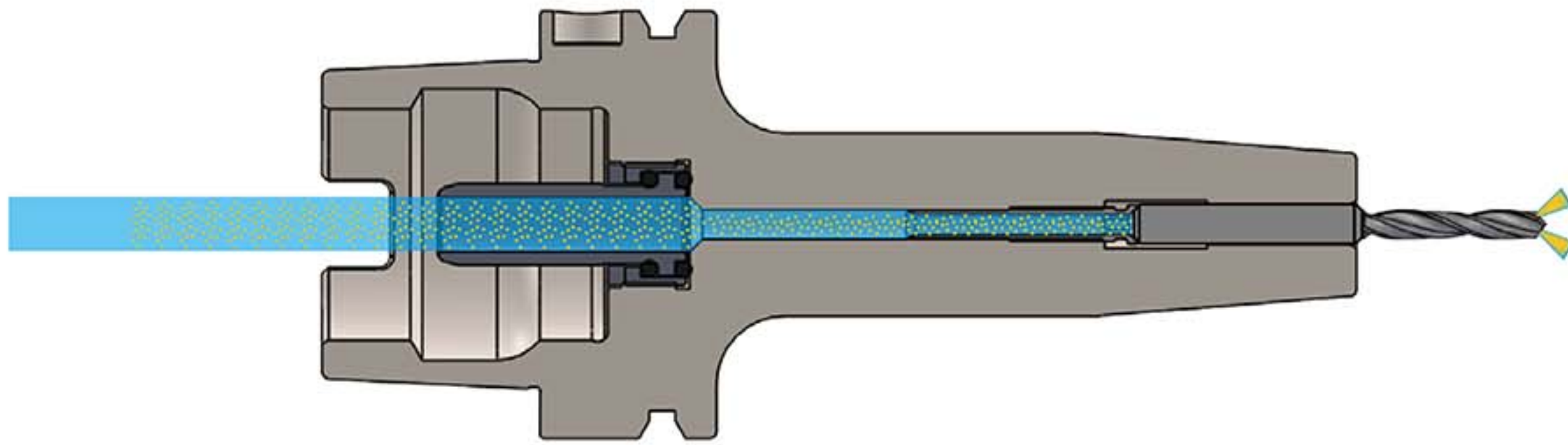
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MQL technology:

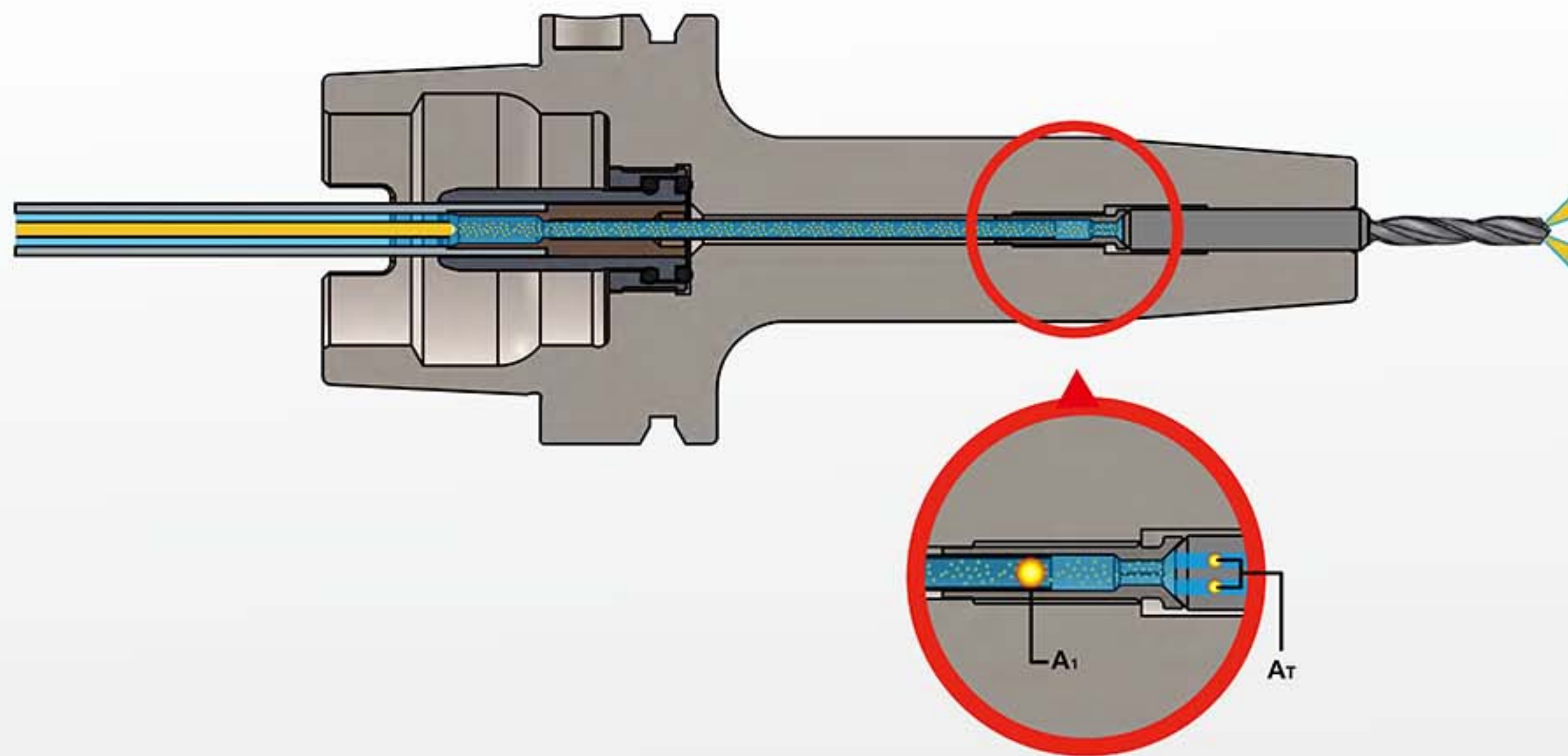
MQL-a type: 1 channel

The compressed air and minimal quantities of oil lubrication are mixed before entering the machine spindle and delivered to the tool through machine spindle and tool holder.



MQL-b type: 2 channels

The compressed air and minimal quantities of oil lubrication are delivered through 2 separate channels and mixed in the chamber and then delivered to the tool.



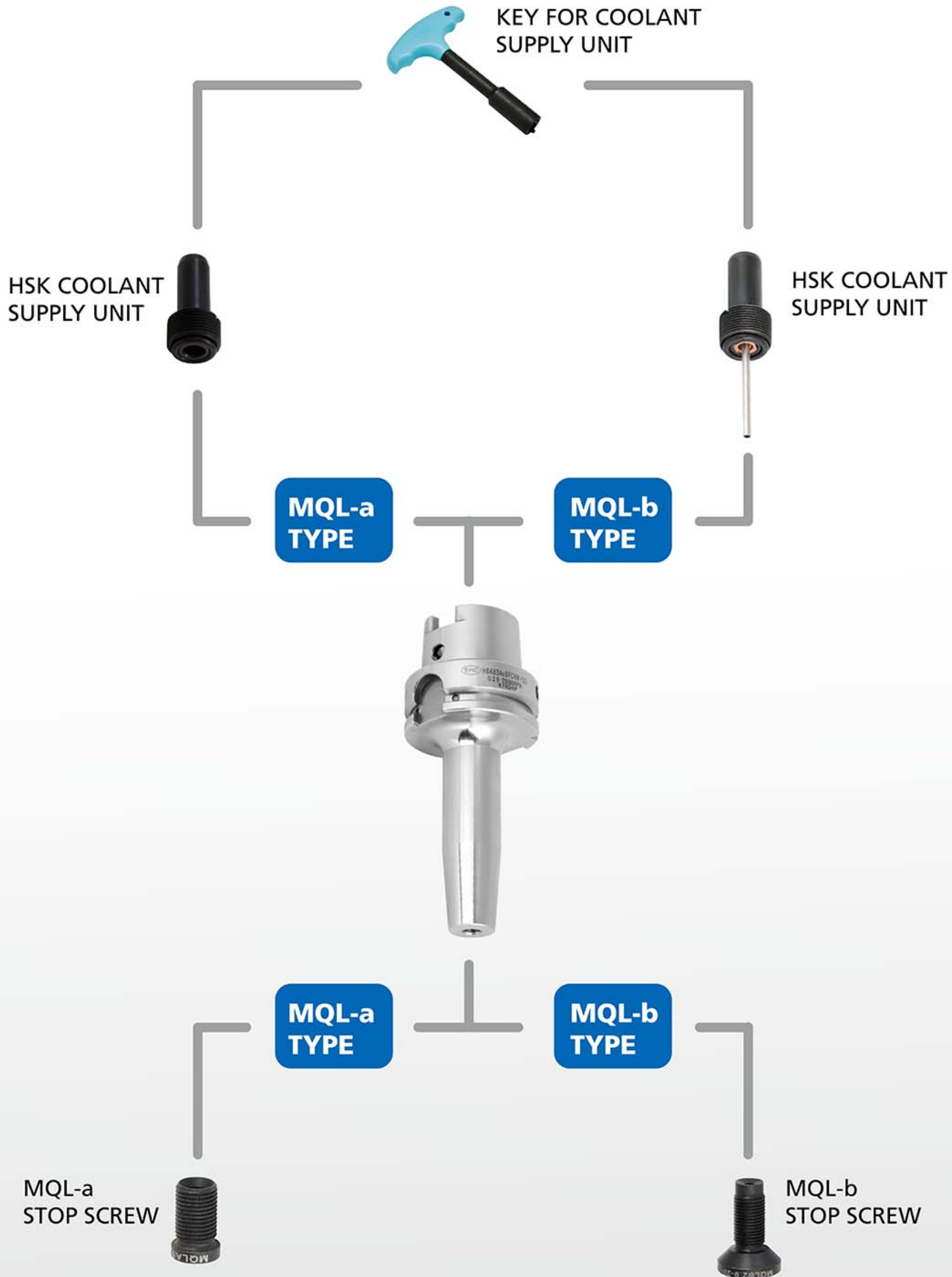
A_1 mm ²	A_T mm ²
2.01	0 ~ 1.6
4.15	1.4 ~ 3.0
9.08	2.5 ~ 6.5
16.62	5.5 ~ 16.6
$1 \times A_T \leq A_1 \leq 4 \times A_T$	

When selecting MQL-b type shrink fit chucks, please note:

To ensure an optimal delivery of coolant fluid flow to the cutting edge, the cross-section ratio between the cross-section of coolant supply unit's pipe A_1 (mm²) and the sum of tool coolant channels' cross-section A_T (mm²) should be 1:1 to 4:1. It is recommended to use the combination with the ratio the closest to 1:1.



APPLICATION DIAGRAM



Reminder:

► Shrink Fit Chuck MQL-a Type and Shrink Fit Chuck MQL-b Type are assembled with stop screw and coolant supply unit as standard accessories. Shrink Fit Chuck MQL type is "the holder body" without any accessories, and the stop screw and coolant supply unit should be ordered "separately".

