Utmost®

品质与艺术完美结合

艾坦姆系列控制阀

Utmost® Control Valves

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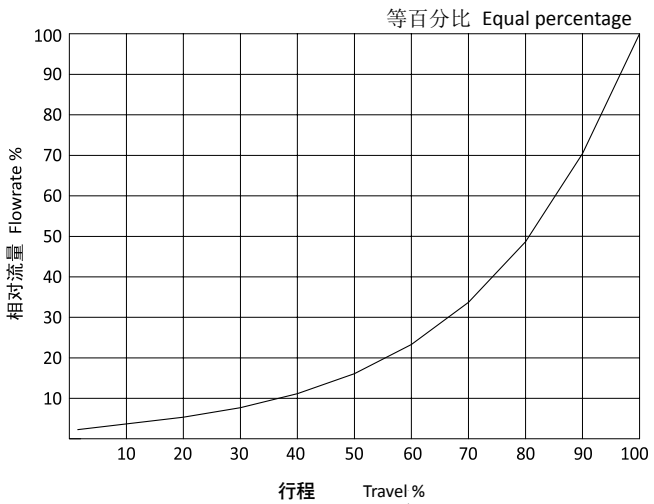
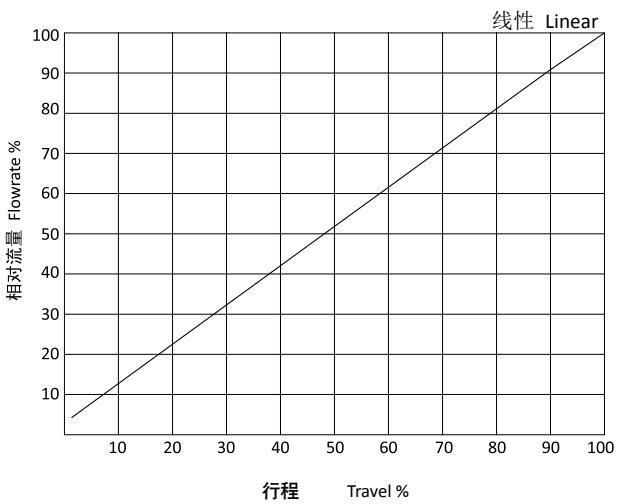
A120,A160 系列角阀技术数据
Technical Data Sheet of A120 and A160 Series Angle Valve

基本规格 General Data

角阀 Angle valve	A120	A160	A180
公称通径 Nominal Diameter DN /NPS	1/2'' ～ 10''	1/2'' ～ 10''	1/2'' ～ 10''
压力等级 Nominal Pressure PN / ANSI	PN16-40 / ANSI 150-300	PN63-250 / ANSI 600-1500	PN250-400 / ANSI 1500-2500
流量特性 Characteristics	等百分比或线性 Equal Percentage or Linear		
可调比 Rangeability	50:1		
阀芯导向 Plug Guide	阀杆导向 Stem Guided,		
泄漏等级 Leakage	金属硬密封 IV 级 Metal sealing: IEC 50534-4 leakage class IV ; 金属硬密封 V 级 Metal sealing: IEC 50534-4 leakage class V ;		
波纹管密封 Bellow Sealing (option)	无缝双壁波纹管，标准材质 316SS，可选材质：哈氏合金、Monel、Inconel 等其他材料 seamless, double walled, made of 316SS, option: Hastelloy, Monel, Inconel and other materials		
保温夹套 Heating Jacket (option)	热媒进出口连接方式：法兰 1/2“ 或 1“ Connections 1/2“ or 1“ flanges		
填　料 Packing	V 型聚四氟乙烯填料、纯石墨、加强石墨、编织石墨。 V-PTFE Ring,Pure Graphite,Incone reinforced Graphite,PTFE BraidedG raphite		
执行机构 Actuator	多弹簧执行机构 Multi-spring Actuator		
工作温度 Temperature	-196℃ to 530℃		

角阀流量特性 (等百分比 / 线性）
Angle valve flow characteristic flow chart(Equal percentage/Linear)





A120,A160 系列角阀技术数据
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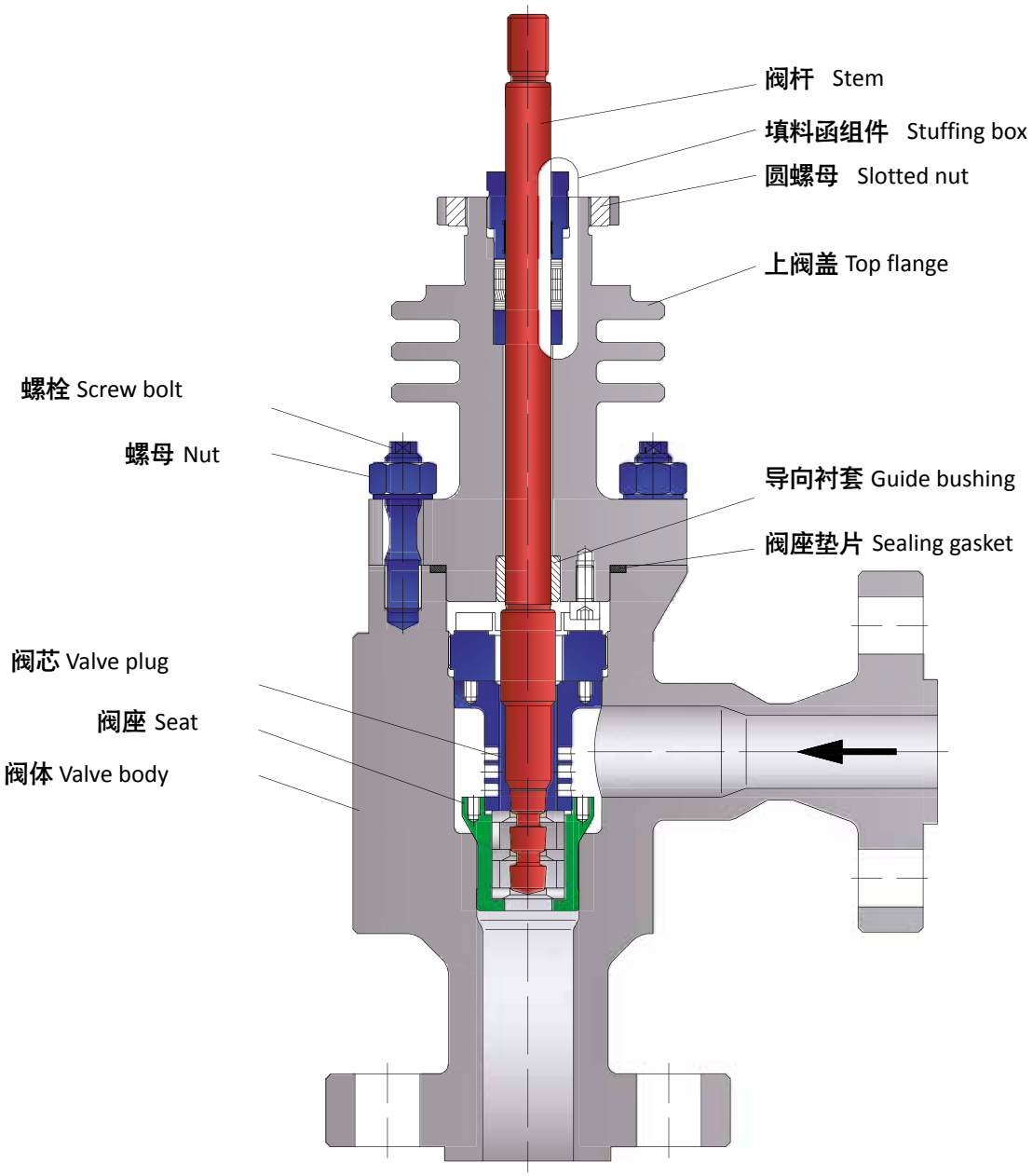
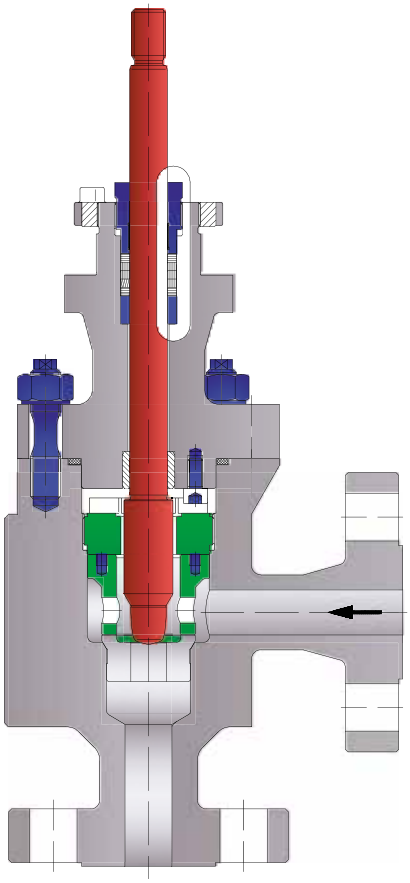
角阀结构图及部件图
Sectional drawing of Angle Valve

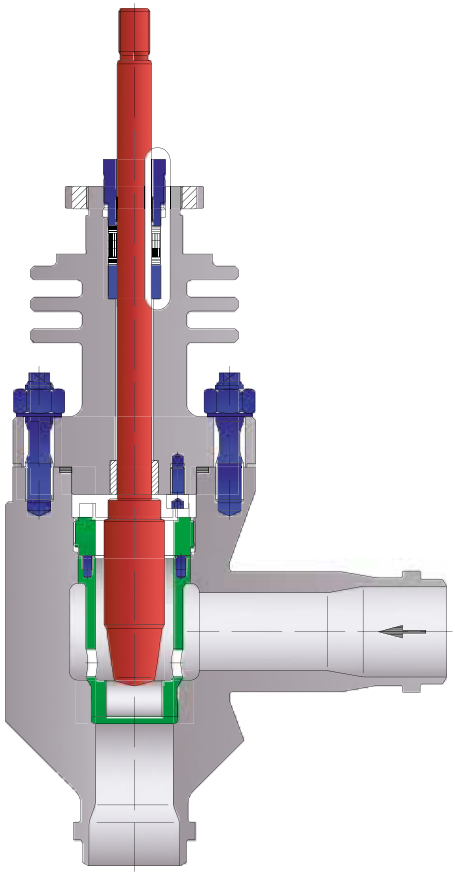


A120,A160 系列角阀特点
General structures and features of A120 and A160 Series Angle Valve

结构特点
Structure Charateristics



角阀阀芯
Angle Valve Trim



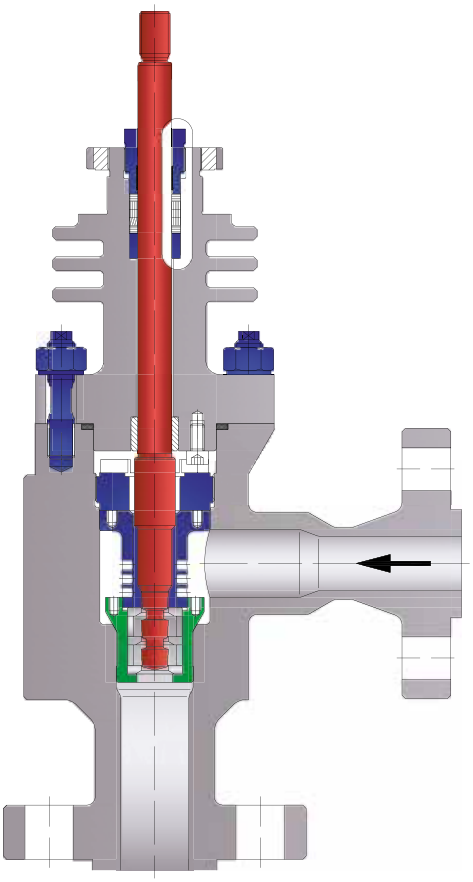
角阀阀芯
Angle Valve Trim

1 级抛物线型阀芯，具有易于加工、更换、维护、方便快捷的特点，阀内件可选用整体碳化钨材质或其它硬质材质，阀芯结构可选择平衡或非平衡式结构，该结构形式流道简单，适用于高压、含颗粒物介质工况。上阀盖形式可选择常温型、低温延长型、高温散热片或波纹管等结构形式。

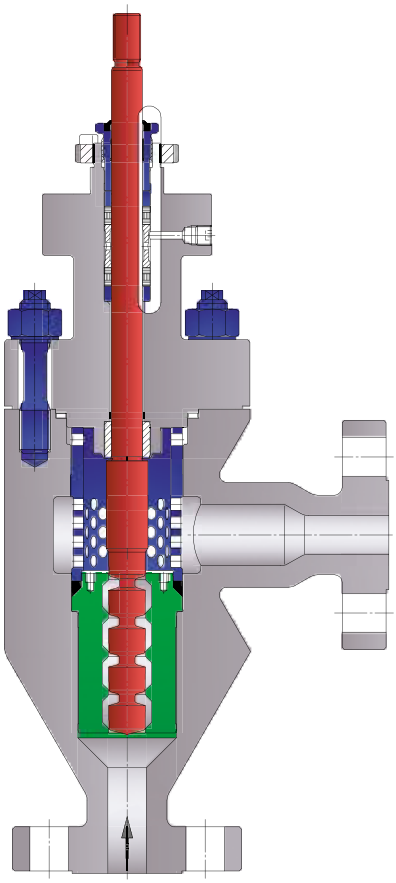
1-stage contoured valve plug easy to produce, replace, and maintenance, valve trim can choose Tungsten Carbide or any other material, both balanced and unbalanced structure valve plug are available, such structures have simple smooth flow way and very suit for high pressure, particulate medium conditions, Valve bonnet can choose Normal , high temperature , bellows and extension type ect.

A120,A160 系列角阀特点
General structures and features of A120 and A160 Series Angle Valve

结构特点
Structure Charateristic



3 级降压阀芯
3-stages Contoured trim



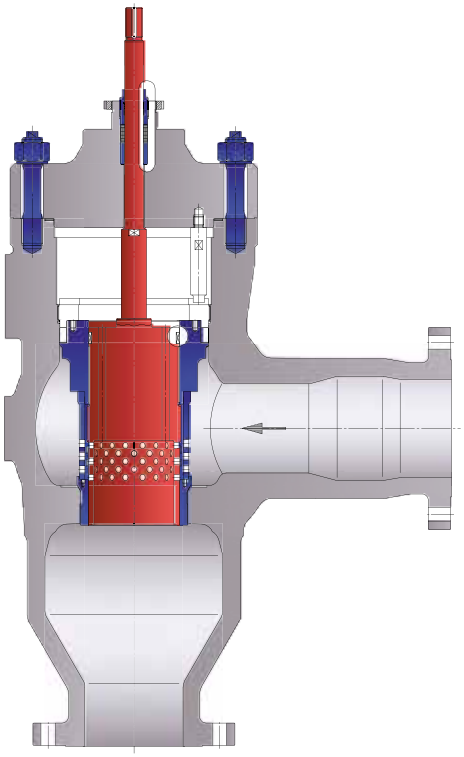
5 级降压阀芯级
5-stages Contoured trim

多级抛物线型阀芯：该结构形式适用于高压差、气蚀工况的场合，可有效避免气蚀。

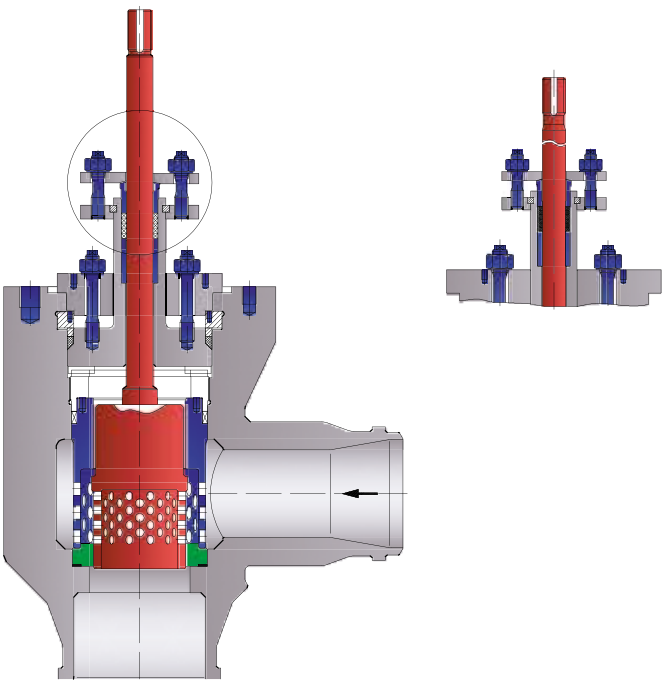
Multi stages contoured valve trim; this structure suit for high pressure drop, full cavitations fluid condition, Anti- cavitations characteristic.

A120,A160 系列角阀特点
General structures and features of A120 and A160 Series Angle Valve

结构特点
Structure Charateristic



压力平衡式
Banlanced Type



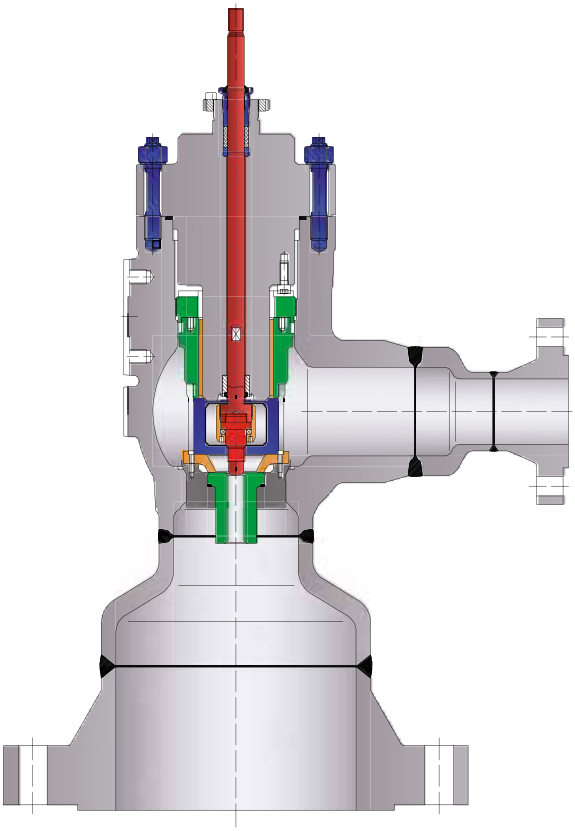
非压力平衡式
Unbanlanced Type

笼式调节阀特别适用于高压差、高噪声、高压蒸汽工况场合，阀芯可采用平衡式或非平衡式，笼式阀芯具有降噪和降低液体工况下闪蒸对阀芯气蚀破坏的功能。

Cages valve is particularly suit for high pressure drop, high noise and high pressure steam conditions, both balance and unbalance structure valve plug is available, with the fuction of reducing the cavitation damage and noises under flash liquid conditions.

A120,A160 系列角阀特点
General structures and features of A120 and A160 Series Angle Valve

角阀的特殊用途
Special usage of Angle valve



由于黑水、灰水中含有大量的固体颗粒。介质中又含有一定量的硫，对材料具有一定的腐蚀性；黑水、灰水工况的温度为 240 ~ 260 ℃，压差较高，因此黑灰水由阀门入口的液体、固体两相混合变成了阀门出口的气液固三相混合，使介质的流速增加，对阀门及下游管线冲刷严重，甚至很短时间就造成了破坏。

Since the black water and gray water contains large amounts of solid particles, also contains a certain amount of sulfur, which have a certain corrosion of the material, even high pressure drop with temperature 240 ~ 260 ℃ . So the medium in liquid phase with particles black water from the valve inlet change into two-phase liquid and gas with solid particles before valve outlet. Due to the gas exist, the fluid velocity is increased, under such conditions the valve and downstream piping are very easy seriously corrosion and washed out even a very short time can causing great damage.

艾坦姆角式调节阀门使用整体的碳化钨阀芯、阀座，阀座结构不同于以往通常的设计，其竖直向下的阀座结构最大程度避免了介质对下游管道的冲刷损害。整体碳化钨的阀芯、阀座具有更长的使用寿命。

UTM angle valve adopt tungsten carbide valve trim, valve seat and special seat structure different from the common design straight down the seat structure can maximize media to avoid erosion damage on the downstream piping. The valve trim with overall tungsten has longer life cycle.

→ **特殊的阀腔型式降低了黑灰水的入口流速，降低了对阀门内件的冲刷；**
Special designed valve housing can reduces the velocity of the inlet black or gray water, also can release the valve reduces the erosion to the inner parts.

→ **特殊的加长导向设计，很好的保护了阀杆；**
Special extension guiding design protect the stem,

→ **特殊的套筒设计，降低了对阀芯的冲刷；**
Special sleeve design reducing erosion to the valve trim,

→ **特殊的加长阀座设计，降低了流体对出口的冲刷；**
Special prolong valve seat design , reducing the fluid erosion to the valve outlet,

→ **文丘里形的阀体出口，降低了黑灰水的出口流速，保障了阀门的长期稳定运行；**
Venturi outlet valve, reducing the medium's velocity ensure the long-term stable operation of the valve,

→ **阀芯、阀座采用整体碳化钨材料，保证其使用寿命；**
Tungsten carbide valve plug, valve seat ensure its service life,

→ **阀芯、阀座采用模块式的结构，便于更换**
Modular valve trim structure , easy to replace,

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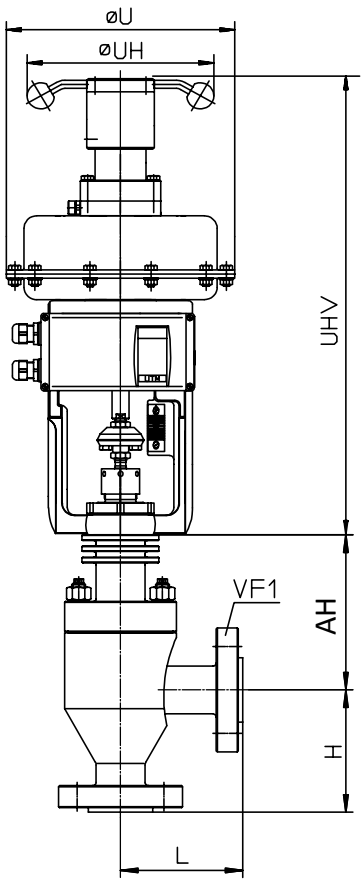
Technical Data Sheet of A120 and A160 Series Angle Valve

A120,A160 系列角阀外形尺寸
Dimensions of A120 and A160 Series Cryogenic Control Valve



DN		1''	2''	3''	4''	6''	8''	10''
AH		** 按需提供 on request						
L	ANSI 150	70	102	121	146	203	248	311
	ANSI 300	102	133	159	178	222	279	311
	ANSI 600	108	146	178	216	279	330	394
	ANSI 900	127	184	190	229	305	368	419
	ANSI 1500	127	184	235	273	353	416	495
	ANSI 2500	154	226	289	337	457	511	635
H	ANSI 150	70	102	121	146	203	248	311
	ANSI 300	102	133	159	178	222	279	311
	ANSI 600	108	146	178	216	279	330	394
	ANSI 900	127	184	190	229	305	368	419
	ANSI 1500	127	184	235	273	353	416	495
	ANSI 2500	154	226	289	337	457	511	635

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增强产品价值，为您的工厂提供全面支持！

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Utmost also supply technical solution and integrated after service system to increase products value and fully support your factory!

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Annoucement: The data of this brochure comes from standard valve in theory and measurement, data updates without notice.

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