



阀座材料规范
The seat material specification

Table with 8 columns: Material, NYLON, MOLON, DEVLON-API, PTFE, RPTFE(碳纤维), PEEK, PPL. Rows include Temperature ratings, Pressure ratings, Hardness, Tensile strength, Elongation, Proportion, and Applicable conditions.

密封件技术规范
Seal technical specification

Table with 7 columns: Material, VITON, EPDM, NBR, HNBR, 25%碳纤维, PTFE, 柔性石墨. Rows include Proportion, Temperature ratings, and Hardness.

其它密封垫圈
Other sealing ring

Table with 5 columns: Form Type, Working condition, Temperature ratings, PH. Rows include PTFE, 316+石墨缠绕垫, 316+PTFE Wound gasket, and 成型石墨.

固定球阀参考扭矩 N.M
Operating torque N.M

Table with 13 columns: NPS, DN, Class150, Class300, Class400, Class600, Class900, Class1500, Class2500, PN1.6, PN2.5, PN4.0, PN6.4, PN10.0. Rows list various valve sizes and classes.

- 注 1.本表所列扭矩是基本清洁、常温工况计算。
2.本表所列的扭矩值供选择执行器时所参考，为了确定执行器的型号和尺寸，我们推荐1.1~1.3的安全系数，对于超低温工况，建议将安全系数考虑为2~3倍。
3.对于缩径阀门的操作扭矩按其缩口所对应通径阀门操作扭矩选用。
4.实际扭矩可能因介质和内件材料不同而不同，具体就跟我公司技术部联系。
Note 1. Torque is listed on this basic cleaning, working condition of normal temperature calculation.
2. Torque values listed on this form for reference when selecting actuators, in order to confirm the type and size of actuators, it is recommended that the safety factor of 1.1 ~ 1.3, for ultra-low temperature conditions, recommendations will be Safety factor to consider for 2 ~ 3 times.
(3) Regarding to reduce bore valve, the operating torque is according to its corresponding size .
4. The actual torque may varies from medium and internal parts materials, for details,please contact our technical department.

低温阀门是一种低温工况下使用的阀门，通常温度在-40℃以下。其工作介质大部分为易燃、易爆、有毒、渗透性强的物质，诸如乙烯、液氧、液氮、LNG、LPG。其阀门结构和选材有如下要求：工作寿命长；保冷性散热性；异常升压结构设计；阀体壁厚均匀；填料防冻；防火防静电等。

Cryogenic valves is a kind of valves using in low temperature conditions , temperature below -40 ℃ - usually, its most of the working medium for flammable, explosive, toxic, porous material, such as ethylene, liquid oxygen,liquid hydrogen, LNG, LPG. The valve structure and material selection has the following requirements: working life is long; for cold heat dissipation; abnormal pressure structure design; the body wall thickness uniformity; packing antifreeze; fire retardant anti-static, etc.

应用规范
Application specification

Table with 3 columns: Standard, ANSI 系列, GB 系列. Rows include Temperature-pressure ratings, Design, Face to face, End flange, Inspection & testing, and Fire-safe design.

*低温阀在常温压力试验合格后，还需进行低温压力试验。
After the pressure test at room temperature,low temperature pressure test is also required .

低温球阀盖加长长度 (选自SHELL MESC SPE – 77/200)
Cryogenic valve cover extended length (from the SHELL MESC SPE - 77/200)

Table with 10 columns: Valve type, 15~25, 40~50, 80~100, 150~200, 250~300, 350~400, 450~600, 700~800, 900~1200. Rows include Gate valve, Gloce valve, Ball valve, and butterfly valve with design temperature ranges.

低温阀最小滴水板高度(选自SHELL MESC SPE – 77/200)
Cryogenic valve minimum drip plate height (from the SHELL MESC SPE - 77/200)

Table with 11 columns: Temperature, DN ranges, and suitable for all types. Rows include maximum, minimum, and specific temperature points.

常用低温材料使用温度
Commonly cryogenic materials & its service temperature

Table with 9 columns: Material, A352 LCB/LCC, A352 LC1, A352 LC2, A352 LC3, A351 CF8, A351 CF8M, A351 CF3, A351 CF3M. Rows include Cast steel and Forged steel.

低温阀门的主要连接尺寸如下图所示，低温阀高度尺寸是其常规阀门基础上加长颈的高度，故不再列表。
Main size for cryogenic valve ,no list here, the height of cryogenic valve is based on the general valve’ s extended neck.