**Blind Flange and Gasket selection procedure**

# SCOPE:

This guide will provide you with an overview of the Selection of blind flanges as well as how to install, remove, and maintain them.

# REFERENCE:

* JOS-02-01 - General Specification – Piping Selection & Design
* KOC-MP-031 PART 1 - Gaskets for Pipe Flanges – Types, Design and Materials

*(Minimum technical requirements for types, design and materials of gaskets for pipe flanges intended to be installed on flanged joints of plant piping, pipelines, valves, fittings, pumps, pressure vessels, compressors, storage tanks and other equipment.)*

* KOC-MP-031 PART 2 - Gaskets for Pipe Flanges – Selection Criteria, Handling & Installation

*(Minimum technical requirements and basic guidelines in selection criteria, handling, storage and installation of gaskets for standard flanged joints.)*

# BLIND FLANGE SELECTION

Selection of blind flange material shall be as per JO Specification JOS-02-01, based on the piping class. (e.g., Suppose Pipe class is “AW” the selection as follows:





# FLANGE TIGHTENING SCOPE:

For Flange tightening sequence and torque requirements as per Chevron Doc.no: PIM-DS-5209-B-FCD.

# GASKETS

Gasket type and Material selection shall be as per JO Specification JOS-02-01, based on the piping class. The gasket contact face finish for raised face flanges shall be 125-250 AARH (Arithmetical Average Roughness Height) in accordance with standard MSS SP-6.

The dimensions and tolerance for non-metallic flat type gaskets shall be as per ASME B16.20 for spiral wound and ring joint gaskets and ASME B16.21. Unless specified otherwise, gaskets shall be suitable for flanges as per ASME B16.5 for sizes up to 24” and ASME B16.47 Series A for sizes above 24”.

|  |  |
| --- | --- |
|  1  | **FLANGE/TORQUE FORM** |
| 2  | Flange No./Description of Flange Location:  |   |   |
| 3  |   |   |   |
| 4  | Flange Class: Flange Size:  | Flange Type (RF, FF, RTJ, T&G or Custom):  |   |
| 5  | **FLANGE VERIFICATION**  | **Acceptable**  | **Unacceptable**  |
|  6  | Verify gasket surface is not damaged and is clean. Make sure that ring and groove are clean and not damaged on ring joints.  |   |   |
| 7  | Verify correct gasket is used.  |   |   |
|  8  | Verify studs/nuts are correct metallurgy. Make sure studs/nuts run free, are reconditioned, or new as required by PIM-SU-5209.  |   |   |
| 9  | Verify studs/nuts are properly lubricated on BOTH ends.  |   |   |
|  10  | Inspect the nut bearing surface on the flange and use a hardened washer under the nut that is to be torqued if the bearing surface is badly damaged.  |   |   |
|  11  | Verify the stud on breaking end is flush with the nut or has a maximum of two threads exposed past the nut.  |   |   |
| 12  | Verify the proper tightening pattern was used.  |   |   |
| 13  | Verify final pass is made with a torque wrench if required.  |   |   |
| 14  | Verify flange alignment (within 1/32-inch per PIM-SU-5209).  |   |   |
| 15  |  if the blind flange selected can’t meet the JO Specification JOS-02-01, please provide the detail information of the blind flange design (such as material and pressure rating etc.) |
| 16  | **Torque Verification:**  |   |   |
| 17  | (Per applicable limits set by PIM-SU-5209, Table 3)  |   |   |
| 18  | Required Torque: Ft-lbs  | Torque Wrench No. (If marked):  |   |
| 19  | Actual Torque: Ft-lbs  |   |   |
| 20  | Mechanic:  | Date:  |   |
| 21  | Final Acceptance By:  | Date:  |   |
| 22  |   |   |   |
| 23  | Send this completed data sheet to the shutdown QA/QC group or appropriate supervisor.  |
| 24  |   |
| 25  |   |
|  26  | **Notes:**  | **No.**  | **Date**  | **Revision**  | **By**  | **Approval**  |
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