

MC & ME SERIES - TOP-FLO® DISC TYPE CHECK VALVES

STEEL & O'BRIEN MANUFACTURING

MATRIX REVISION: 01/09/26

| TYPE |                                       | MATERIAL |                 | BODY GASKET |                                    | BODY CLAMP |                              | STOPPER O-RING |                           | BODY O-RINGS |                                 | VALVE CONNECTIONS |                               | ID SURFACE FINISH |                                         | VALVE SIZE |        | STOPPER TYPE |              | STOPPER HOLE OPTION |                             | GUIDE TYPE |                          | CRACKING PRESSURE |          |
|------|---------------------------------------|----------|-----------------|-------------|------------------------------------|------------|------------------------------|----------------|---------------------------|--------------|---------------------------------|-------------------|-------------------------------|-------------------|-----------------------------------------|------------|--------|--------------|--------------|---------------------|-----------------------------|------------|--------------------------|-------------------|----------|
| MC45 | CONCENTRIC (INLET & OUTLET)           | 6        | 316L            | P           | EPDM                               | H          | 2-BOLT HIGH PRESSURE         | E              | FEP ENCAPSULATED EPDM     | F            | SOLID PTFE                      | 1                 | CLAMP x CLAMP                 | F1                | 20Ra MAX (SF1)                          | 50         | 1/2"   | F            | FLAT         | A                   | NONE                        | -          | 316L (STD)               | -                 | STD      |
| ME45 | ECCENTRIC (CONC. INLET / ECC. OUTLET) | A        | AL6XN®          | F           | SOLID PTFE                         | L          | SINGLE PIN W/ WING NUT       | S              | FEP ENCAPSULATED SILICONE | TS           | TUF-STEEL 50/50 SS-PTFE (SOLID) | 2                 | WELD x WELD                   | F5                | 20Ra MAX + EP (SF5)                     | 75         | 3/4"   | G            | GUIDE FINGER | B                   | 1/8" Ø STOPPER HOLE         | K          | PEEK INSERT ISO 10993-05 | L                 | 0.73 PSI |
|      |                                       | H        | HASTELLOY® C276 | Q           | PLATINUM CURED SILICONE            | M          | DOUBLE PIN W/ WING NUT       | P              | EPDM                      | P            | EPDM                            | 3                 | CLAMP (INLET) x WELD (OUTLET) | F4                | 15Ra MAX + EP (SF4)                     | 10         | 1"     |              |              | B4                  | (QTY 4) 1/8" Ø STOPPER HOLE |            |                          |                   |          |
|      |                                       | 2        | HASTELLOY® C22  | V           | VITON® (FKM)                       | A          | ACL HIGH PRESSURE (SHX TYPE) | K              | KALREZ® (FFKM)            | K            | KALREZ® (FFKM)                  | 4                 | WELD (INLET) x CLAMP (OUTLET) | O1                | 20Ra MAX (SF1)<br>O2 CLEAN/CAP/BAG      | 15         | 1 1/2" |              |              | C                   | 1/4" Ø STOPPER HOLE         |            |                          |                   |          |
|      |                                       |          |                 | TF          | TUF-FLEX PTFE/EPDM FILLED (BONDED) |            |                              | C              | CHEMRAZ® (FFKM)           | C            | CHEMRAZ® (FFKM)                 |                   |                               | O5                | 20Ra MAX + EP (SF5)<br>O2 CLEAN/CAP/BAG | 20         | 2"     |              |              | Z                   | HOLE DIAMETER (TBA)         |            |                          |                   |          |
|      |                                       |          |                 | TS          | TUF-STEEL 50/50 SS-PTFE (SOLID)    |            |                              | Q              | PLATINUM CURED SILICONE   | Q            | PLATINUM CURED SILICONE         |                   |                               | O4                | 15Ra MAX + EP (SF4)<br>O2 CLEAN/CAP/BAG | 25         | 2 1/2" |              |              |                     |                             |            |                          |                   |          |
|      |                                       |          |                 | R           | ORCA PTFE/EPDM FILLED (BONDED)     |            |                              | V              | VITON® (FKM)              | V            | VITON® (FKM)                    |                   |                               |                   |                                         | 30         | 3"     |              |              |                     |                             |            |                          |                   |          |
|      |                                       |          |                 | K           | KALREZ® LS390 (FFKM)               |            |                              | L              | PERLAST G745 (FFKM)       | L            | PERLAST G745 (FFKM)             |                   |                               |                   |                                         | 40         | 4"     |              |              |                     |                             |            |                          |                   |          |
|      |                                       |          |                 |             |                                    |            |                              |                |                           |              |                                 |                   |                               |                   |                                         | 60         | 6"     |              |              |                     |                             |            |                          |                   |          |

PART NUMBER EXAMPLE:

MC4562HEP1F520FB

TOP-FLO® 2" MC45 CONCENTRIC CHECK VALVE, CLAMP ENDS,

FLAT STOPPER W/ 1/8" HOLE, POLYSHIELD STFE/EPDM FILLED BODY GASKET, PTFE ENCAPSULATED

EPDM STOPPER O-RING, EPDM BODY O-RINGS, 2-BOLT HIGH PRESSURE BODY CLAMP,

20RA ID W/ ELECTROPOLISH, 316LSS CONSTRUCTION, MADE IN USA

Kalrez® and Viton® are registered trademarks of DuPont de Nemours, Inc.

Chemraz® is a registered trademark of Greene, Tweed & Co.

AL6XN® is a registered trademark of ATI Properties, Inc.

Hastelloy® is a registered trademark of Haynes International, Inc.

Coaching Comments:

| SECTION         | ORDER CODE | COMMENTS                                                                                                                                                                                       |
|-----------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TYPE            | MC45       | Vertical orientation installation only                                                                                                                                                         |
|                 | ME45       | Horizontal or vertical orientation installation                                                                                                                                                |
| MATERIAL        | A          | Valves constructed of AL6XN material will utilize a Hastelloy internal spring                                                                                                                  |
|                 | NOTE       | Other alternative materials upon request (2205, Alloy 20, etc.) - consult factory                                                                                                              |
| BODY GASKET     | TF         | Valid selection for all valve sizes, EXCLUDING 3" valve size                                                                                                                                   |
|                 | R          | Valid selection for valve sizes thru 2-1/2" only                                                                                                                                               |
|                 | K          | Valid selection for valve sizes thru 2-1/2" only                                                                                                                                               |
| BODY O-RINGS    | TS         | Lead time to have this material seal manufactured is minimum 5-6 working weeks                                                                                                                 |
|                 | NOTE       | Alternatively, Code F (solid PTFE) can be selected to reduce lead time                                                                                                                         |
| STOPPER TYPE    | F          | Standard selection for all valve sizes MC45 vertical type & fractional (1/2" & 3/4") ME45 eccentric type                                                                                       |
|                 | G          | Standard selection for valve sizes 1" thru 6" sizes ME45 eccentric type (optional for MC45 vertical)                                                                                           |
| STOPPER ORIFICE | Z          | Requested hole/orifice diameter should be provided on the VDS or inquiry/RFQ stage in order to allow Steel & O'Brien verification that the combination of valve size and diameter are possible |