BMT Company Profile

Fittings & Valves | Electric & Energy

Comprehensive line of BMT products & solutions serve your instrumentation, fluid control and electrical system needs
Fittings & Valves

PIPELINE VALVE

INSTRUMENTATION FITTING & VALVE

ULTRA HIGH PURITY FITTING & VALVE

BMT Co., Ltd.
BUSINESSES
PROUDLY MADE IN KOREA
www.superlok.com

Electric & Energy

SWITCHBOARD & MCBS**(1)

DISTRIBUTION BOARD & MCPD**(2)

ENERGY MANAGEMENT SOLUTION

Note
**(1) MCBS: Molded Case Busbar System
**(2) MCPD: Molded Case Power Distributor
### System Certificates

- ISO 9001
- ISO 14001
- OHSAS 18001
- KEPIC-MN
- API-6D
- PED Module H
- ASME-N
- ASME-NPT
- ASME-NS
- RTN

### Product (Type-Approval) Certificates (as of Dec 2018)

<table>
<thead>
<tr>
<th>PRODUCT/TYPsE</th>
<th>DESCRIPTION/AUTHORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cryogenic Ball Valves</td>
<td>1/2” to 2” (BV, DNV/GL, LR, KR), 3” to 6” (LR), 6” (DNV/GL), 1/2” to 6” (ABS), 10” (LR)</td>
</tr>
<tr>
<td>Cryogenic Globe Valves</td>
<td>1/2” to 2” (DNV/GL, KR), 1/2” to 8” (LR), 1/2” to 8” (ABS, BV), 12” and 14” (DNV/GL, LR)</td>
</tr>
<tr>
<td>Cryogenic Needle Valves</td>
<td>1/2” (ABS, BV), 1/2” to 1” (DNV/GL, LR, KR)</td>
</tr>
<tr>
<td>Cryogenic Block &amp; Bleed Valves</td>
<td>1/2” (KR)</td>
</tr>
<tr>
<td>Cryogenic Gate Valves</td>
<td>2” and 10” (KR)</td>
</tr>
<tr>
<td>Cryogenic Check Valves</td>
<td>2” and 10” (KR)</td>
</tr>
<tr>
<td>Flanged Ball Valves (SBVE series)</td>
<td>3/4” (LR)</td>
</tr>
<tr>
<td>SUPERLOK Tube Fittings</td>
<td>BV, EC (RDW), DNV/GL/GL, NK, TUV NORD</td>
</tr>
<tr>
<td>Bite Type Tube Fittings</td>
<td>BV, GL, LR, DNV/GL/GL, NK, ABS</td>
</tr>
<tr>
<td>SAE 37° Flared Tube Fitting</td>
<td>DNV</td>
</tr>
<tr>
<td>CNG (ECE Regulation 110) Components</td>
<td>SUPERLOK Tube Fittings, High Pressure Ball/Check Valves, Trunnion Ball Valves, Receptacles, Filters</td>
</tr>
<tr>
<td>EC Type Approval of a Hydrogen Component</td>
<td>SUPERLOK Tube Fittings</td>
</tr>
<tr>
<td>CRN (Canadian Registration Number)</td>
<td>Ball/Needle Valves, Thread Fittings, Flanges</td>
</tr>
<tr>
<td>Functional Nut Type FM</td>
<td>GL</td>
</tr>
</tbody>
</table>

### NOC/IOC Vendor Registration (as of Dec 2018)

- Chevron
- ExxonMobil
- Abu Dhabi National Oil Company (ADNOC)*
- Petroleum Development Oman (PDO)
- Iran Gas Engineering and development co. (IGEDC)
- Iranian Central Oil Field Co. (ICOFIC)
- Iranian Offshore Oil Co. (IOOC)
- Kuwait National Petroleum Company (KNPC)
- Kuwait Oil Company (KOC)
- National Iranian Gas Company (NIGC)
- National Iranian Oil Engineering & Construction Co. (NIOEC)
- NIOC (National Iranian Oil Company)
- NPC (National Petrochemical Company)
- Petrobras
- PT. PERTAMINA (LIMITED) RU Cilacap
- SEC (Saudi Electricity Company)

* For subsidiary companies: ADGAS, ADMA-OPCO, BOROUGE, FERTIL, TAHRER, ZADCO

### Major Milestones

- **2018**
  - Listed as an official supplier of: Cryogenic valves for SHI, HHI, and DSME; and UHP products for SK Hynix and LG Display;

- **2016**
  - World Class 300 Company Designation (Small/Medium Business Administration of S.Korea)

- **2015**
  - Presidential Citation for Venture Vitalization (President of S.Korea)

- **2013**
  - 2nd Factory was established

- **2012**
  - UHP Division was started up
  - Cryogenic Valves were launched

- **2011**
  - i-Fitting & Process Valve series were launched
  - Partnership with Schneider Electric for Distribution Boards

- **2009**
  - HQ and Factory (1st) were moved to Yeongsan

- **2008**
  - Tin Tower Order of Industrial Service Merit (President of S.Korea)

- **2007**
  - Listed on KOSDAQ market

- **2005**
  - BMT R&D Center was established
  - Electric & Energy Division was started up

- **1988**
  - Gyeong Pung Machinery Co. (current BMT Co., Ltd.) was founded
INDUSTRIAL VALVES

CRYOGENIC BALL VALVES

- **APPLICATIONS**
  - Cryogenic liquids such as liquefied oxygen, nitrogen, argon

- **SPECIFICATIONS**
  - Size: 1/2 to 14 in.
  - Working Pressure: Class 150 to 2500
  - Temperature: down to -320°F (-196°C)

---

CRYOGENIC GLOBE VALVES

- **APPLICATIONS**
  - Cryogenic liquids such as liquefied oxygen, nitrogen, argon

- **SPECIFICATIONS**
  - Size: 1/2 to 14 in.
  - Working Pressure: Class 150 to 2500
  - Temperature: down to -320°F (-196°C)

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CRYOGENIC NEEDLE VALVES

- **APPLICATIONS**
  - Cryogenic liquids such as liquefied oxygen, nitrogen, argon

- **SPECIFICATIONS**
  - Size: 1/2 to 1-1/2 in.
  - Working Pressure: Class 150 to 2500
  - Temperature: down to -320°F (-196°C)

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CRYOGENIC DBB VALVES

- **APPLICATIONS**
  - Cryogenic liquids such as liquefied oxygen, nitrogen, argon

- **SPECIFICATIONS**
  - Size: 1/2 to 4 in.
  - Working Pressure: Class 150 to 2500
  - Temperature: down to -320°F (-196°C)

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BALL VALVES (FLOATING/TRUNNION MOUNTED)

- **APPLICATIONS**
  - Hydraulic system, Chemical / Petrochemical, Oil and Gas production

- **SPECIFICATIONS**
  - Size: 1/2 to 24 in.
  - Working Pressure: Class 150 to 2500
  - Temperature: -51 to 500°F (-46 to 260°C)
  - up to 842°F (450°C) with metal seat

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BLOCK & BLEED VALVES

- **APPLICATIONS**
  - Process piping isolation points, Direct mount to instruments, Vents and drains

- **SPECIFICATIONS**
  - Size: 1/2 to 24 in.
  - Working Pressure: Class 150 to 2500
  - Temperature: -51 to 500°F (-46 to 260°C)
  - up to 842°F (450°C) with metal seat

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GLOBE VALVES

- **APPLICATIONS**
  - Hydraulic system, Chemical/Petrochemical, Oil & Gas production

- **SPECIFICATIONS**
  - Size: 1/2 to 16 in.
  - Working Pressure: Class 150 to 2500
  - Temperature: -49 to 842°F (-45 to 450°C)
SAE FLANGED BALL VALVES (SBVE)

- **APPLICATIONS**
  - Hydraulic system

- **SPECIFICATIONS**
  - Size: 1/2 to 5 in.
  - Working Pressure: up to 6000 psi (414 bar)@100°F (38°C)
  - Temperature: -4 to 392°F (-20 to 200°C)

BALL VALVES (SBV 120H)

- **APPLICATIONS**
  - Instrument air line

- **SPECIFICATIONS**
  - Size: 1/16 to 3/4 in., 3 to 12 mm
  - Working Pressure: up to 3000 psi (206 bar)@100°F (38°C)
  - Temperature: 50 to 150°F (10 to 66°C)

BALL VALVES (SBV 210)

- **APPLICATIONS**
  - Instrument air line

- **SPECIFICATIONS**
  - Size: 1/4 to 1 in., 6 to 16 mm
  - Working Pressure: up to 1000 psi (69 bar)@100°F (38°C)
  - Temperature: 0 to 450°F (-17 to 232°C) with PTFE seat

BALL VALVES (SBVH 360)

- **APPLICATIONS**
  - High pressure Instrument system, Hydraulic system

- **SPECIFICATIONS**
  - Size: 1/4 to 1 in., 6 to 25 mm
  - Working Pressure: up to 6000 psi (414 bar) @100°F (38°C)
  - Temperature: -65 to 302°F (-54 to 150°C) with PCTFE seat
  - -65 to 500°F (-54 to 260°C) with PEEK seat

TRUNNION BALL VALVES (BT)

- **APPLICATIONS**
  - Instrument air lines, GAS & CNG industry, Sampling

- **SPECIFICATIONS**
  - Size: 1/8 to 1/2 in., 6 to 12 mm
  - Working Pressure: up to 10000 psi (689 bar)@100°F (38°C)
  - Temperature: 0 to 450°F (-17 to 232°C)

SWING-OUT BALL VALVES

- **APPLICATIONS**
  - Instrument air lines, Chemical process, Oil and Gas production

- **SPECIFICATIONS**
  - Size: 1/4 to 2 in.
  - Working Pressure: up to 3000 psi (206 bar)@100°F (38°C)
  - Temperature: -20 to 450°F (-29 to 232°C)

KEY OPERATION BALL VALVES

- **APPLICATIONS**
  - Pneumatic system, Instrument system & isolation, General service

- **SPECIFICATIONS**
  - Size: 1/4 to 1 in., 6 to 25 mm
  - Working Pressure: up to 6000 psi (413 bar) @70°F (21°C)
  - Temperature: 0 to 450°F (-17 to 232°C) with PTFE seat

BALL VALVES TO DIN STANDARD

- **APPLICATIONS**
  - Hydraulic lines

- **SPECIFICATIONS**
  - Size: 4mm to 42mm
  - Working Pressure: up to 7200 psi (496 bar)@100°F (38°C)
  - Temperature: -4 to 210°F (-20 to 100°C)
INDUSTRIAL VALVES

FORGED HIGH PRESSURE BALL VALVES (SBVF 360)

**APPLICATIONS**
High pressure instrument lines, Oil & Gas production

**SPECIFICATIONS**
- Size: 1/8 to 3/4 in., 3 to 16 mm
- Working Pressure: up to 6000 psi (414 bar)@100°F (38°C)
- Temperature: -65 to 200°F (-54 to 93°C) with PCTFE seat
  -65 to 350°F (-54 to 177°C) with PTFE seat

UNION BONNET NEEDLE VALVES (SUNV)

**APPLICATIONS**
Instrument isolation, General service, Test valves

**SPECIFICATIONS**
- Size: 1/4 to 1/2 in.
- Working Pressure: up to 10000 psi (689 bar) @ 100°F (38°C)
- Temperature: -65 to 200°F (-54 to 93°C) with PTFE packing
  -65 to 1200°F (649°C) with Graphite packing

INTEGRAL BONNET NEEDLE VALVES (SINV)

**APPLICATIONS**
Instrument isolation, General service, Test valve

**SPECIFICATIONS**
- Size: 1/8 to 3/4 in., 3 to 18 mm
- Working Pressure: up to 5000 psi (345 bar)@100°F (38°C)
- Temperature: -65 to 450°F (-54 to 232°C) with PTFE packing
  -65 to 600°F (-54 to 315°C) with PEEK packing

INTEGRAL BONNET BAR STOCK NEEDLE VALVES (SBNV)

**APPLICATIONS**
Instrument isolation, General service, Test valves

**SPECIFICATIONS**
- Size: 1/8 to 1 in., 6 to 25 mm
- Working Pressure: up to 6000 psi (414 bar)@100°F (38°C)
- Temperature: -65 to 450°F (-54 to 232°C) with PTFE packing
  -65 to 600°F (-54 to 315°C) with PEEK packing

HIGH PRESSURE BAR STOCK NEEDLE VALVES (SHBNV)

**APPLICATIONS**
High pressure service, Instrument isolation

**SPECIFICATIONS**
- Size: 1/4 to 1/2 in.
- Working Pressure: up to 10000 psi (689 bar) @ 100°F (38°C)
- Temperature: -65 to 450°F (-54 to 232°C) with PTFE packing
  up to 1200°F (649°C) with Graphite packing

MANIFOLD VALVES

**APPLICATIONS**
Pressure switch, Pressure transmitters, Differential pressure instrumentation

**SPECIFICATIONS**
- Size: 1/4 to 1/2 in.
- Working Pressure: up to 6000 psi (414 bar)@100°F (38°C)
- Temperature: -65 to 450°F (-54 to 232°C) with PTFE packing
  up to 1200°F (649°C) with Graphite packing

INTEGRATION GAUGE VALVES

**APPLICATIONS**
Pressure gauge, Primary isolation

**SPECIFICATIONS**
- Size: 1/2 to 3/4 in.
- Working Pressure: up to 6000 psi (414 bar)@100°F (38°C)
- Temperature: -65 to 450°F (-54 to 232°C) with PTFE packing
  up to 1200°F (649°C) with Graphite packing
**CHECK VALVES (SPCV)**

- **APPLICATIONS**
  - Instrument lines, Prevention of reversed flow, Uni-directional flow control

- **SPECIFICATIONS**
  - Size: 1/8 to 1 in., 6 to 25mm
  - Working Pressure: up to 3000 psi (206 bar) @ 100°F (38°C)
  - Cracking Pressure: 1/3 to 100 psi (0.03 to 6.9 bar)
  - Temperature: -10 to 375°F (-23 to 191°C) with Viton seal

**ADJUSTABLE CHECK VALVES (SACV)**

- **APPLICATIONS**
  - Pressure switch, Pressure transmitters, Differential pressure instrumentation

- **SPECIFICATIONS**
  - Size: 1/4 to 3/8 in., 6 to 8mm
  - Working Pressure: up to 3000 psi (206 bar)
  - Cracking Pressure: 3 to 600 psi (0.2 to 14.3 bar)
  - Temperature: -10 to 375°F (-23 to 191°C) with Viton seal

**ONE-PIECE CHECK VALVES (SOCV)**

- **APPLICATIONS**
  - Pressure switch, Pressure transmitters, Differential pressure instrumentation

- **SPECIFICATIONS**
  - Size: 1/4 to 3/4 in.
  - Working Pressure: up to 3000 psi (206 bar)
  - Cracking Pressure: 1/3 to 25 psi (0.02 to 1.7 bar)
  - Temperature: -10 to 375°F (-23 to 191°C) with Viton seal

**ONE-PIECE ADJUSTABLE CHECK VALVES (SOACV)**

- **APPLICATIONS**
  - Pressure switch, Pressure transmitters, Differential pressure instrumentation

- **SPECIFICATIONS**
  - Size: 1/4 to 1/2 in.
  - Working Pressure: up to 3000 psi (206 bar)
  - Cracking Pressure: 3 to 600 psi (0.2 to 14.3 bar)
  - Temperature: -10 to 375°F (-23 to 191°C) with Viton seal

**HIGH PRESSURE CHECK VALVES (SHCV)**

- **APPLICATIONS**
  - Prevention of reversed flow, High Pressure characteristics

- **SPECIFICATIONS**
  - Size: 1/8 to 1 in., 6 to 25 mm
  - Working Pressure: up to 6000 psi (414 bar) @ 100°F (38°C)
  - Cracking Pressure: 1/3 to 25 psi (0.03 to 1.7 bar)
  - Temperature: -10 to 375°F (-23 to 191°C) with Viton seal

**HIGH PRESSURE CHECK VALVES (SHPCV)**

- **APPLICATIONS**
  - High pressure equipment, Pumping system, Hydraulic intensifier, Water blasting

- **SPECIFICATIONS**
  - Size: 1/4 to 1 in.
  - Working Pressure: up to 60000 psi (4137 bar)
  - Cracking Pressure: 14 to 26 psi (0.966 to 1.794 bar)
  - Temperature: -110 to 1200°F (-79 to 649°C) with Metal seat
  - -50 to 500°F (-45 to 260°C) with O-ring seat

**HIGH PRESSURE NEEDLE VALVES (SHNV60)**

- **APPLICATIONS**
  - High pressure equipment, Pumping system, Hydraulic intensifier, Water blasting

- **SPECIFICATIONS**
  - Size: 1/4 to 1 in.
  - Working Pressure: up to 60000 psi (4137 bar)
  - Cracking Pressure: 3 to 600 psi (0.2 to 14.3 bar)
  - Temperature: -10 to 375°F (-23 to 191°C) with Viton seal

**HIGH PRESSURE BALL VALVES (SHBV)**

- **APPLICATIONS**
  - High pressure equipment, Pumping system, Hydraulic Intensifier, Water blasting, Test machine

- **SPECIFICATIONS**
  - Size: 1/8 to 1 in.
  - Working Pressure: up to 20000 psi (1397 bar)
  - Temperature: 0 to 450°F (-17 to 232°C) with PTFE Packing
  - up to 800°F (427°C) with Graphite Packing

Any products not mentioned in this publication, please consult BMT (SUPERLOK) sales representative for availability.
INDUSTRIAL VALVES

PLUG VALVES

APPLICATIONS
Control panels, Specialty gas systems, Chemical delivery

SPECIFICATIONS
Size: 1/8 to 1/2 in., 6 to 12 mm
Working Pressure: up to 3000 psi (206 bar)@100°F (38°C)
Temperature: -10 to 400°F (-23 to 204°C)

RISING PLUG VALVES

APPLICATIONS
Lines containing small solid impurities; Viscous fluids or slurries,
Systems requiring flow regulation and full flow capabilities

SPECIFICATIONS
Size: 1/4 to 3/4 in.
Working Pressure: up to 6000 psi (414 bar)@100°F (38°C)
Temperature: -20 to 400°F (-28 to 204°C)

TOGGLE VALVES

APPLICATIONS
Test panels, Purge systems, Rapid open/close systems

SPECIFICATIONS
Size: 1/8 to 1/2 in., 3 to 12 mm
Working Pressure: up to 300 psi (20.6 bar)@100°F (38°C)
Temperature: -20 to 200°F (-28 to 93°C)

INDUSTRIAL EXCESS FLOW VALVES

APPLICATIONS
Fuel system, Gas system, Hydraulic & Pneumatic system

SPECIFICATIONS
Size: 1/8 to 1/2 in., 6 to 12 mm
Working Pressure: up to 6000 psi (414 bar)@100°F (38°C)
Temperature: -10 to 400°F (-23 to 204°C) with Viton seal

BLEED VALVES

APPLICATIONS
Venting of instrument system, Hydraulic & Pneumatic system

SPECIFICATIONS
Size: 1/8 to 3/4 in.
Working Pressure: up to 10000 psi (689 bar)@100°F (38°C)
Temperature: -65 to 850°F (-54 to 454°C)

PURGE VALVES

APPLICATIONS
Purging of instrument system, Hydraulic & Pneumatic system

SPECIFICATIONS
Size: 1/4 to 1/2 in.
Working Pressure: up to 4000 psi (275 bar)@100°F (38°C)
Temperature: -65 to 600°F (-54 to 315°C)

RELIEF VALVES (SRVL, SRVH)

APPLICATIONS
Overpressure protection

SPECIFICATIONS
Size: 1/4 to 1/2 in., 6 to 12 mm
Working Pressure: up to 300 psi (21 bar)@100°F (38°C) for SRVL
up to 6000 psi (414 bar)@100°F (38°C) for SRVH
Opening Pressure: 10 to 250 psi (0.69 to 17.2 bar) for SRVL
225 to 6000 psi (15.5 to 414 bar) for SRVH
Temperature: -10 to 400°F (-23 to 204°C)

MODULAR MOUNTING SYSTEM

APPLICATIONS
General pressure and differential pressure measurements

SPECIFICATIONS
Manifold (Standard): 2- and 4-valve
Process/Vent Connection: G 1/4 Female, NPT 1/4 Female
Working Pressure: up to 6000 psi (414 bar)@37°C (100°F)
Temperature: up to 200°C (392°F)
i-Fitting
SUPERLOK Tube Fittings & Valves with i-Fitting

i-Fitting Features

- i-Fitting components include: body, front & back ferrule, nut, identification band, and check ring
- The check ring is essentially a built-in gap gauge, which separates when a fitting is tightened to the point of perfect compression
- Solves over- and under-tightening problems
- Increases installer safety in high pressure and dangerous chemical environments
- Improves productivity and reduces costs
- Industry changing, patented design by BMT

Why i-Fitting is the Right Choice?

PERFECT CONNECTION can be SEEN, HEARD, FELT with the SAFEST fitting in the market!!

Most tube fitting leaks are caused by improper installation. i-Fittings, developed by BMT, ensures a safe, quick, and precise connection every time.

i-Fittings eliminate errors during installation by incorporating a patented check ring on every fitting. The check rings, which function as a built-in gap gauge, separate as a fitting is tightened to the exact point of perfect compression. This quality control and safety feature indicates that a fitting has been tightened properly and is not easily confused with other fittings on a job that have not been tightened.

Q1 Which one requires more tightening?

Conventional installation

Installation with i-Fitting

Q2 Which one is completely installed from pre-assembly?

Conventional installation

Installation with i-Fitting

SUPERLOK TUBE FITTINGS
SINGLE/DOUBLE FERRULE COMPRESSION TYPE

i-APPLICATIONS
Research, Analytical and process instrumentation, Oil and gas, Power, Petrochemical, Semiconductor

i-SPECIFICATIONS
Size: 1/16 to 2 in., 2 to 38 mm
Working Pressure: governed by the pressure rating of tubing
Temperature: -320 to 1200°F (-196 to 649°C)

DIN TUBE FITTINGS (DIN2353 BITE-TYPE)

i-APPLICATIONS
Hydraulic, Compressed air, Fuel heating, Automotive

i-SPECIFICATIONS
Size: 4 to 42 mm
Working Pressure:
- PN 100 bar for LL (Very Light)
- PN 315 bar for L (Light)
- PN 630 bar for S (Heavy)
Temperature: -76 ~ 752°F (-60 ~ 400°C)

JIS TUBE FITTINGS (JIS B2351 BITE-TYPE)

i-APPLICATIONS
Hydraulic, Compressed air, Fuel heating, Automotive

i-SPECIFICATIONS
Size: 1/8 to 1-1/2 in., 4 to 50 mm
Working Pressure: up to 7250 psi (500 bar)
Temperature: -76 ~ 752°F (-60 ~ 400°C)
**INDUSTRIAL FITTINGS**

### 37º Flared Tube Fittings to SAE J514

**Applications**
- Hydraulic system

**Specifications**
- Size: 1/8 to 2 in., 2 to 50 mm
- Working Pressure: 8700 psi (600 bar) @ 100°F (38°C) with O-Ring
- Working Pressure: 5000 psi (345 bar) @ 100°F (38°C) without O-Ring
- Temperature: up to 800°F (427°C)

### High Pressure Fittings

**Applications**
- High pressure equipment, Pumping system, Hydraulic intensifier, Water blasting, Test stands

**Specifications**
- Size: 1/4 to 1 in.
- Working Pressure: up to 60000 psi (4137 bar)
- Temperature: -423 to 1200°F (-252 to 649°C)

### Dielectric Fittings

**Applications**
- Isolation of monitoring instruments from the effects of electric current

**Specifications**
- Size: 6 to 12 mm
- Working Pressure: up to 5000 psi (206 bar)
- Temperature: up to 1000°F (538°C)
- Electrical Resistance of Insulators: 10 × 10^6 Ω at 10 V (dc) at 70°F (20°C)

### O-Ring Face Seal Fittings

**Applications**
- High pressure equipment, Pumping system, Hydraulic intensifier, Water blasting, Test stands

**Specifications**
- Size: 1/8 to 1 in.
- Working Pressure: up to 13000 psi (910 bar) @ 100°F (38°C)
- Temperature: up to 550°F (287°C)

### Instrumentation Thread Fittings

**Applications**
- Process, power, instrumentation and general plumbing

**Specifications**
- Size: 1/8 to 1 in.
- Working Pressure: 10000 psi (689 bar) @ 100°F (38°C)
- Temperature: -320 to 1000°F (-196 to 537°C)

### FORGED FITTINGS

**Applications**
- Hydraulic, Compressed air, Fuel heating, Automotive applications

**Specifications**
- Size: up to 4 in.
- Working Pressure: 2000, 3000, 6000, 9000 lbs
- Temperature: up to 1000°F (538°C)

### Push-On Hose Fittings

**Applications**
- Air break system, Air conditioning system, Automotive applications

**Specifications**
- Size: 6 to 25 mm
- Working Pressure: up to 350 psi (24 bar) @ 100°F (38°C)
- Temperature: -40 to 212°F (-40 to 100°C)

### Pre-Forming Fittings

BMT developed & patented medium-pressure tube fittings

### 37º Flared Tube Fittings to SAE J514

**Applications**
- Hydraulic system

**Specifications**
- Size: 1/8 to 2 in., 2 to 50 mm
- Working Pressure: 8700 psi (600 bar) @ 100°F (38°C) with O-Ring
- Working Pressure: 5000 psi (345 bar) @ 100°F (38°C) without O-Ring
- Temperature: up to 800°F (427°C)

### High Pressure Fittings

**Applications**
- High pressure equipment, Pumping system, Hydraulic intensifier, Water blasting, Test stands

**Specifications**
- Size: 1/4 to 1 in.
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- Temperature: -423 to 1200°F (-252 to 649°C)

### Dielectric Fittings

**Applications**
- Isolation of monitoring instruments from the effects of electric current

**Specifications**
- Size: 6 to 12 mm
- Working Pressure: up to 5000 psi (206 bar)
- Temperature: up to 1000°F (538°C)
- Electrical Resistance of Insulators: 10 × 10^6 Ω at 10 V (dc) at 70°F (20°C)

### O-Ring Face Seal Fittings

**Applications**
- High pressure equipment, Pumping system, Hydraulic intensifier, Water blasting, Test stands

**Specifications**
- Size: 1/8 to 1 in.
- Working Pressure: up to 13000 psi (910 bar) @ 100°F (38°C)
- Temperature: up to 550°F (287°C)

### Instrumentation Thread Fittings

**Applications**
- Process, power, instrumentation and general plumbing

**Specifications**
- Size: 1/8 to 1 in.
- Working Pressure: 10000 psi (689 bar) @ 100°F (38°C)
- Temperature: -320 to 1000°F (-196 to 537°C)

### FORGED FITTINGS

**Applications**
- Hydraulic, Compressed air, Fuel heating, Automotive applications

**Specifications**
- Size: up to 4 in.
- Working Pressure: 2000, 3000, 6000, 9000 lbs
- Temperature: up to 1000°F (538°C)

### Push-On Hose Fittings

**Applications**
- Air break system, Air conditioning system, Automotive applications

**Specifications**
- Size: 6 to 25 mm
- Working Pressure: up to 350 psi (24 bar) @ 100°F (38°C)
- Temperature: -40 to 212°F (-40 to 100°C)

### Pre-Forming Fittings

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OTHER INDUSTRIAL PRODUCTS

BREAK AWAY COUPLINGS

**APPLICATIONS**
Emergency disconnect, safe transfer of media (including liquefied gases)

**SPECIFICATIONS**
- Working Pressure: up to 362.5 psi (25 bar)
- Temperature: Down to -321°F (-196°C)
- Breaking Force: 13 KN

MICRON FILTERS (SIF, STF)

**APPLICATIONS**
Protection of instrument system

**SPECIFICATIONS**
- Working Pressure: up to 3000 psi (207 bar)@70°F (21°C) for SIF (In-line)
- up to 6000 psi (414 bar)@70°F (21°C) for STF (Tee)
- Temperature: -20 to 900°F (-29 to 482°C) for SIF (In-line)
- -40 to 250°F (-40 to 121°C) for STF (Tee)
- Filtering Range: 0.5 to 90 Micron

HYDRAULIC QUICK COUPLINGS

**APPLICATIONS**
Easy connection/disconnection in hydraulic systems, general industrial applications

**SPECIFICATIONS**
- Working Pressure: 5000 psi (345 bar)@100°F (38°C)
- Temperature: -15 to 400°F (-26 to 204°C)
- Maximum Working Temperature: 400°F (204°C) with VITON

TUBING

**APPLICATIONS**
A variety of analytical and process instrumentation applications

**SPECIFICATIONS**
- Type: Seamless Coiled/Straight Tubing, Pre-insulated Tubing
- Size: 1/8 to 2 in., 3 to 25 mm

FLEXIBLE METAL HOSES

**APPLICATIONS**
Vacuum system

**SPECIFICATIONS**
- Vacuum rated to 1x10⁻¹¹ Torr
- Leak rating: 1x10⁻⁹ std cc/s

SWAGING UNITS

**APPLICATIONS**
Flaring, Cutting ring assembly & Ferrule swaging

**SPECIFICATIONS**
- Tube Diameter Range (OD): Maximum 42mm for Metric Tube
- Maximum 2" for Fractional Tube

TUBE BENDERS

**APPLICATIONS**
Tube bending

**SPECIFICATIONS**
- Tube Diameter Range (OD): 1/4 to 1/2 in.
DIAPHRAGM VALVES (PDV1)
LOW PRESSURE • PNEUMATIC • STANDARD

Size (Cv): 1/4 in. (0.3), 1/2 in. (0.7)
Working Pressure: up to 145 psi (10 bar)
Temperature: 14 to 302°F (-10 to 150°C)
Grades: AP, MP, BA, EP

DIAPHRAGM VALVES (BDV1)
LOW PRESSURE • MANUAL • BLOCK

Size (Cv): 1/4 in. (0.3), 1/2 in. (0.7)
Working Pressure: up to 145 psi (10 bar)
Temperature: 14 to 302°F (-10 to 150°C)
Grades: AP, MP, BA, EP

BEND FITTINGS

Size: Pipe 8 to 550A, Tube 1/4 to 6 in.
Working Pressure: governed by the pressure rating of tubing
Temperature: up to 1000°F (537°C)
Grades: AP, MP, BA, EP

DIAPHRAGM VALVES (DV1)
LOW PRESSURE • MANUAL • STANDARD

Size (Cv): 1/4 to 3/4 in. (0.3 to 0.7)
Working Pressure: up to 145 psi (10 bar)
Temperature: 14 to 302°F (-10 to 150°C)
Grades: AP, MP, BA, EP

DIAPHRAGM VALVES (BPDV1)
DIAPHRAGM VALVES (HDV1)
BELLOWS VALVES (BV1)

DIAPHRAGM VALVES (SODV1)
LOW PRESSURE • MANUAL • SHUT-OFF

Size (Cv): 1/4" to 3/4" (0.3 to 0.7)
Working Pressure: up to 145 psi (10 bar)
Temperature: 14 to 302°F (-10 to 150°C)
Grades: AP, MP, BA, EP

Any products not mentioned in this publication, please consult BMT (SUPERLOK) sales representative for availability.
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**BELLOWS VALVES (PBV1)**
LOW PRESSURE • PNEUMATIC • STANDARD

Size (Cv) : 1/4 to 1/2 in. (0.36 to 1.1)
Working Pressure : up to 145 psi (10 bar)
Temperature : 14 to 302°F (-10 to 150°C)
Grades : AP, MP, BA, EP

**BELLOWS VALVES (BV2)**
LOW PRESSURE • MANUAL • FORGED

Size (Cv) : 1 to 2 in. (4.1 to 16), 15 to 50A (2.9 to 21)
Working Pressure : up to 145 psi (10 bar)
Temperature : 14 to 176°F (-10 to 80°C)
Grades : AP, MP, BA, EP

**BELLOWS VALVES (PBV2)**
LOW PRESSURE • PNEUMATIC • FORGED

Size (Cv) : 3/4 to 2 in. (2.9 to 16), 15 to 50A (2.9 to 21)
Working Pressure : up to 145 psi (10 bar)
Temperature : 14 to 176°F (-10 to 80°C)
Grades : AP, MP, BA, EP

**BELLOWS VALVES (BV3)**
LOW PRESSURE • MANUAL • CASTING

Size (Cv) : 65 to 550A (81 to 3400)
Max. Rated Inlet Pressure : 600, 1000, 3500 psi (41.4, 69, 241 bar)
Outlet Pressure Range : 30, 60, 100, 150, 250 psi (2.1, 4.1, 6.9, 10.3, 17.3 bar)
Temperature : -15 to 302°F (-26 to 150°C)
Grades : BA, EP

**CHECK VALVES (CV1)**
LOW PRESSURE • MANUAL • STANDARD

Size (Cv) : 1/4 to 1/2 in. (0.55 to 0.7)
Working Pressure : up to 3000 psi (206 bar)
Nominal Reseal Pressure : 4 psi (0.276 bar)
Nominal Cracking Pressure : 2 psi (0.138 bar)
Temperature : 14 to 176°F (-10 to 80°C)
Grades : AP, MP, BA, EP

**CLEAN BALL VALVES (SBV210)**
HEX TWO-PIECE

Size (Cv) : 1/4 to 1 in. (1.25 to 16)
Working Pressure : up to 1000 psi (69 bar)
Temperature : 14 to 176°F (-10 to 80°C)
Grades : AP, MP, BA, EP

**CLEAN BALL VALVES (BLV1)**
THREE-PIECE

Size (Cv) : 1/4 in. (0.06 or 0.2), 1/2 in. (0.5)
Working Pressure : up to 1000 psi (69 bar)
Temperature : 14 to 176°F (-10 to 80°C)
Grades : AP, MP, BA, EP

**REGULATORS (PR1, PR2)**
Compact, Safe, Convenient modular/extensible busbar system

Loose-proof function for high-pressure busbar
During the connection of high-pressure busbar, loosening of bolts may occur upon oscillation. When MCBS applied, bolt connections are covered with transparent closures, preventing loosening from oscillation.

Restriction on clearance/creepage distance of each phase (R/S/T/N) reduced

<table>
<thead>
<tr>
<th>Conventional HV Switchboard (22.9kV) (Article 108 and KEMC2101)</th>
<th>MCBS-applied Switchboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Phase-ground 200mm</td>
<td>• Phase-ground 50mm</td>
</tr>
<tr>
<td>• Phase-phase 215mm</td>
<td>• Phase-phase 40mm</td>
</tr>
<tr>
<td>• Same phase 225mm</td>
<td>• Same phase 50mm</td>
</tr>
</tbody>
</table>

Volume Decreased & Safety Increased
Applied to Switchboards and Motor Control Center (MCC), MCBS decreases the volume (by 40%) and increases safety.

APPLICATION: Switchboard, MCC

Phase-segregated monitoring module, which combined with IIoT Gateway and Cloud EMS server provides Energy Monitoring System (EMS)

• Measurement and alarm of voltage, current, temperature, and power use by each phase with one module
• Easy installation and convenient usage
• Real-time power monitoring and display of electric charges imposed/expected
• Setup of range of alarm by load and saving
• Power monitoring available for all loads regardless of number of loads
• Wired/wireless LAN data communication enabling distant and remote monitoring

APPLICATION: Distribution Board, Switchboard, MCC

Essential for producing more convenient, safe, easy and economic distribution board & switchboard

Excellent Operability
• With modulated MCPD, no need for burdensome busbar connection.
• Molded Case Circuit Breaker (Earth-Leakage Circuit Breaker) can be installed only with a connector (terminal).

Standardization/Normalization
• Standardization and modulation ensure simple and consistent installation.

Economic
• Standardized and simplified construction enables a great amount of cost reduction.

Higher Electrical Safety
• As busbars are designed to be installed inside flame-retardant insulation case and not to be exposed to the air, pollution and corrosion by external sources are prevented and the risks of electricity-related accidents are reduced.

Compatibility/Applicability
• The panel structure enables easier connection with a circuit breaker and diverse assemblies. With diversity of connectors, MCPD can be connected to almost all types of circuit breakers in the market and configures any circuit structure.

Urgent Construction
• Suitable for use in places where installation and construction of distribution boards and switchboards are urgent.

APPLICATION: Distribution Board, Switchboard
Any products not mentioned in this publication, please consult BMT sales representative for availability.

PRODUCTS & SOLUTIONS
Differentiated features by applying BMT patented technologies

COMPACT SWITCHBOARD
Compact, Safe, Convenient Switchboards
With the advantages of MCBS

BMT compact switchboard dramatically reduces the spatial constraints of plants, buildings, and electrical rooms.

- Excellent safety/convenience
  - Enclosed-type separates each busbar.
  - Flame-retardant material prevents transmission of an partial accident reducing risk of catastrophic results caused by short circuit or an electric shock.
  - No additional support insulators required, convenient installation, and easier maintenance.

- Compact structure
  - The structure of separating each phase (R/S/T/N) reduces the restriction of clearance/creepage distance.
  - Volume reduced by 40% or more in comparison with a conventional switchboard.
  - Busbar saved by 10% or more due to reduced panel size.

- Convenient operability/expandability
  - Modularization enables disconnection of individual module and partial replacement/repair.
  - Simple extension and convenient connection with existing busbar lines.

- 3-party Certified
  - K-Mark, KERI Test Report,
  - Excellent Product Certified (Korean Public Procurement Service)

SMART DISTRIBUTION BOARD
Optimum system to increase Energy Efficiency
With the advantages of MCPD and Smart-eye

Comparison of Conventional and Compact Switchboards

SAFETY CONTROL: Control of power supply quality
- Main busbars and sub busbars are strongly connected by copper rivet, which prevents accidents coming from loosening.
- Insulation and flame-retardant bus-bar is applied while connections of circuit breaker are subject to diaphragm, which protects the entire circuit when there is a fire out of short circuits.
- Fuses prevented through temperature sensing from main circuit and branch circuit.

EASIER INSTALLATION AND MAINTENANCE
- Modulated and ready-made form of MCPD increases convenience in installation and construction.
- High applicability: MCPD can be connected to almost all types of circuit breakers in the market and configures any circuit structure.

POWER QUALITY CONTROL AND ENERGY SAVING (up to 15~30%)
- Power quality information is provided to help with learning about energy consumption, consumption pattern and appropriateness of operation.
- Power quality issues are detected through alarms, enabling identification and problem solving. Thus, it reduces time of suspension of operation out of a breakdown, saving energy cost.
- (Optional) Lighting/heating control system to maximize energy saving.
BMT Co., Ltd.

<table>
<thead>
<tr>
<th>Head Quarter &amp; 1st Factory</th>
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</thead>
<tbody>
<tr>
<td>(50568) 경상남도 양산시 산막공단남11길 35 (북정동)</td>
</tr>
<tr>
<td>35, Sanmakgongdannam 11-gil, Yangsan-si, Gyeongsangnam-do, 50568, South Korea</td>
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<tr>
<td>TEL: +82 55 783 1000    FAX: +82 55 783 1111</td>
</tr>
<tr>
<td>E-mail: <a href="mailto:superlok@superlok.com">superlok@superlok.com</a></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2nd Factory</th>
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</thead>
<tbody>
<tr>
<td>(50568) 경상남도 양산시 산막공단남8길 29 (호계동)</td>
</tr>
<tr>
<td>29, Sanmakgongdannam 8-gil, Yangsan-si, Gyeongsangnam-do, 50568, South Korea</td>
</tr>
</tbody>
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**Fittings & Valves**

**INSTRUMENTATION SERIES**
- Tube Fittings (inclu. i-Fitting®)
- Ball/Needle/Check/Relief Valves
- High Pressure Valves
- Manifold Valves

**PIPELINE SERIES**
- Ball/Globe Valves
- DBB Valves
- Cryogenic Valves

**UHP SERIES**
- Weld & Metal Seal Fittings
- Bend Fittings
- Diaphragm/Bellows/Check Valves
- Regulators

**Electric & Energy**

**PRODUCT & SOLUTION**
- Compact Switchboard
- Motor Control Center (MCC)
- Smart Distribution Board
- Energy Monitoring System (EMS)

**COMPONENTS & DEVICES**
- MCBS (Molded Case Busbar System)
- MCPD (Molded Case Power Distributor)
- Smart-eye

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