

AEROSPACE

PRESSURE REGULATORS, VALVES,
AND SYSTEMS





**AMERICAN MADE.
INNOVATIVE.
RELIABLE.
ECONOMICAL.
PREMIER.**



PREMIER REGULATORS, VALVES, & GAS DELIVERY SYSTEMS FOR THE AEROSPACE INDUSTRY

WE ARE EXCITED ABOUT AEROSPACE.

We manufacture and test all of our equipment to meet rigid industry specifications while keeping in mind the distinctive needs and expectations of our customers. We are excited about the new strides being made in Aerospace and are proud to supply and design products that stand up to the unique demands of the aerospace industry.

WE'RE EXPERIENCED AND RESPONSIVE.

Our customers know that if they have a question, they can pick up the phone and give us a call. No automated messaging systems here. We have a team of engineers with over 100 years of regulator design experience ready to assist you. We are always pushing for more sophisticated processes, working on leading-edge designs, while striving to remain personable and responsive.

YOUR PARTNER IN EXPLORATION & DISCOVERY

If you do not see a standard Premier model that suits your needs, please contact us; we would be happy to help you with a custom design or modification.

Our regulators are offered in a variety of materials (with varying weights, strengths, degrees of corrosion resistance, etc.), flow capacities, and inlet/outlet pressure ranges. With the flexibility of optional port alignments, port sizes/types, relief and shut off valves, etc. Premier regulators provide maximum versatility and compatibility for your application.

VERTICALLY INTEGRATED LOW-OVERHEAD MANUFACTURING

From engineering, to programming and testing, We are proud to be a vertically integrated company that has the ability and means to produce high quality, American made products from concept to completion.



**TAILORED TOOLS
AND PROCESSES.**

**DESIGNED TO MEET
THE NEEDS OF
THE AEROSPACE
INDUSTRY.**

Products suited for pressure ranges from vacuum to 20,000 PSIG.

Optional laser etched parts.

Designs for use with harsh & reactive media (hypergolic propellants, supercritical fluids etc.)

Optional parts cleaning and inspection to meet 100R1 (particulate 100, NVR R1) per IEST-STD-CC1246.

A variety of mounting options to integrate seamlessly into your desired application: surface mounting, panel nuts, panel mounting brackets, flanges etc.

Optional laminar flow clean bench assembly, testing, and packaging.

Dome and air-loaded regulators for use with electro-pneumatic controllers for precision and automation.

Optional material certifications.

PRODUCTS FOR AEROSPACE

THIS IS A SMALL SELECTION FROM
OUR PRODUCT LINE.

PLEASE CONTACT US WITH INTEREST OR
VISIT OUR WEBSITE FOR A BROADER
PRODUCT SELECTION.

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*We answer the phone,
your call won't go into a black hole!*

3500 SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|-----------------------|---------------------|---|
| <ul style="list-style-type: none"> • Designed for gas media • Piston sensed • 15 micron sintered 316 SST inlet filter • Non-venting • Optional acorn nut • Three knob styles • Minimal soft goods | 6000 psig / 413.7 bar | Cv: 0.06 Cv: 0.2 | 6061-T6 Aluminum, Nickel plated SAE 360 brass, Nickel Plated 303 Stainless Steel 316 Stainless Steel Monel® |

3500DL SERIES


| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|-----------------------|---------------------|--|
| <ul style="list-style-type: none"> • Dome loaded, 1:1 • 15 micron sintered 316 SST inlet filter • Pneumatic, Piston Sensed • Captured venting • Compatible with electro-pneumatic controllers | 6000 psig / 413.7 bar | Cv: 0.06 Cv: 0.2 | 6061-T6 Aluminum, Clear Anodized 303 Stainless Steel 316 Stainless Steel |


3500AL SERIES


| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|-----------------------|---------------------|--|
| <ul style="list-style-type: none"> • Pneumatic, Piston Sensed • Air loaded, 1:2, 1:3, 1:4, 1:4 + 0-150 psig bias • Captured venting • Compatible with electro-pneumatic controllers • 2 or 4 port designs | 6000 psig / 413.7 bar | Cv: 0.06 Cv: 0.2 | 6061-T6 Aluminum, Clear Anodized 303 Stainless Steel 316 Stainless Steel |


6500 SERIES


| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|-----------------------|---------------------|---|
| <ul style="list-style-type: none"> • Hydraulic • Piston Sensed • Non-venting • Optional acorn nut • Minimal soft goods • 3 knob styles | 6000 psig / 413.7 bar | Cv: 0.06 Cv: 0.2 | 6061-T6 Aluminum, Nickel plated SAE 360 brass, Nickel Plated 303 Stainless Steel 316 Stainless Steel Monel® |

| 6500DL SERIES | FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|---|-----------------------|---------------------|----------------------------------|
|  | <ul style="list-style-type: none"> Hydraulic Dome loaded (1:1) Piston Sensed Captured venting Compatible with electro-pneumatic controllers 1000 psig (68.95 bar) max dome load | 6000 psig / 413.7 bar | Cv: 0.06 Cv: 0.2 | 6061-T6 Aluminum, Clear Anodized |
| | | | | 303 Stainless Steel |
| | | | | 316 Stainless Steel |

| 6500AL SERIES | FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|--|-----------------------|---------------------|----------------------------------|
|  | <ul style="list-style-type: none"> Hydraulic Air loaded Piston Sensed Captured venting Compatible with electro-pneumatic controllers Load ratios: 1:2, 1:3, 1:4 2 or 4 port designs | 6000 psig / 413.7 bar | Cv: 0.06 Cv: 0.2 | 6061-T6 Aluminum, Clear Anodized |
| | | | | 303 Stainless Steel |
| | | | | 316 Stainless Steel |
| | | | | |

| 4600 SERIES | FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|---|-----------------------|---------------------|------------------------------|
|  | <ul style="list-style-type: none"> Two stage Piston Sensed Stable set pressures 1st stage valve seat: Vespel® 2nd stage valve seat PCTFE | 6000 psig / 413.7 bar | Cv: 0.06 Cv: 0.2 | 316 Stainless Steel |
| | | | | SAE 360 brass, Nickel Plated |

| 3560 SERIES | FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|--|-------------------------|---------------------|---------------------------------|
|  | <ul style="list-style-type: none"> Miniature Pneumatic Captured-venting Compact, piston sensed Rear mounting holes std. Vespel®/PEEK/PCTFE seat | 10000 psig / 689.48 bar | Cv: 0.06 Cv: 0.2 | 316 Stainless Steel |
| | | | | 303 Stainless Steel |
| | | | | 6061-T6 Aluminum, Nickel Plated |

| 6560 SERIES | FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|--|-------------------------|---------------------|---------------------|
|  | <ul style="list-style-type: none"> Miniature Hydraulic Captured-venting Compact, piston sensed Rear mounting holes std. Vespel® PEEK® or 17-4 & 440C stainless steel seat | 10000 psig / 689.48 bar | Cv: 0.06 Cv: 0.2 | 316 Stainless Steel |
| | | | | 303 Stainless Steel |

Vespel® is a registered trademark of E.I.dePont de Nemours and Company
PEEK® is a registered trademark of Victrex PLC

3000 SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|---------------------------|---------------------------------|--------------------------------------|
| <ul style="list-style-type: none"> Designed for gas media Self venting, piston sensed 15 micron sintered 316 SST inlet filter Optional captured venting Dome loaded & Air loaded designs available Optional acorn nut | 10000 psig / 689.5 bar | Cv: 0.06 Cv: 0.12 Cv: 0.2 | SAE 360 brass 316 Stainless Steel |
| | 6000 psig / 413.7 bar | | 6061-T6 Aluminum |
| | (Brass) | | |

3000AL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|---------------------------|---------------------------------|--------------------------------------|
| <ul style="list-style-type: none"> Designed for gas media Air loaded, Piston Sensed 15 micron sintered 316 SST inlet filter Optional captured venting Compatible with electro-pneumatic controllers | 10000 psig / 689.5 bar | Cv: 0.06 Cv: 0.12 Cv: 0.2 | SAE 360 brass 316 Stainless Steel |
| | 6000 psig / 413.7 bar | | |
| | (Brass) | | |

3000DL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|---------------------------|--|---------------------|
| <ul style="list-style-type: none"> Designed for gas media Dome loaded Piston Sensed Optional panel mounting nuts Compatible with electro-pneumatic controllers | 10000 psig / 689.5 bar | Cv: 0.06 Cv: 0.12 Cv: 0.2 Cv: 0.3 | 316 Stainless Steel |
| | | | |
| | | | |

6000 SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|---------------------------|---------------------------------|---------------------|
| <ul style="list-style-type: none"> Hydraulic, Piston Sensed Adjustable captured venting Air loaded design available Optional acorn nut Non-venting design available | 10000 psig / 689.5 bar | Cv: 0.06 Cv: 0.12 Cv: 0.2 | 316 Stainless Steel |
| | | | |
| | | | |

6000AL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|---------------------------|--|---------------------|
| <ul style="list-style-type: none"> Hydraulic, Piston Sensed Captured venting Air loaded Compatible with electro-pneumatic controllers | 10000 psig / 689.5 bar | Cv: 0.06 Cv: 0.12 Cv: 0.2 Cv) 0.3 | 316 Stainless Steel |
| | 6000 psig / 413.7 bar | | |
| | (Brass) | | |

6000DL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|------------------------|--|---------------------|
| <ul style="list-style-type: none"> Hydraulic, Piston Sensed Captured venting Dome loaded Compatible with electro-pneumatic controllers | 10000 psig / 689.5 bar | Cv: 0.06 Cv: 0.12 Cv: 0.2 Cv: 0.3 | 316 Stainless Steel |

6000FL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|------------------------|---------------|---|
| <ul style="list-style-type: none"> Hydraulic, Piston Sensed Raised face, welded neck flange connections 1" nominal pipe size Captured venting ANSI B16.5 class 1500 forged flange | 3000 psig / 206.84 bar | Cv: 0.06 | 17-4 Stainless Steel 316 Stainless Steel |

3016 SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|--|--------------------|--|
| <ul style="list-style-type: none"> Designed for gas media High flow Piston Sensed Self venting Optional captured venting Air loaded & dome loaded designs available | 10000 psig / 689.5 bar (Stainless Steel) | Cv: 1.0 Cv: 2.0 | SAE 360 Brass 316 Stainless Steel 17-4 Stainless Steel Monel® |

3016AL SERIES

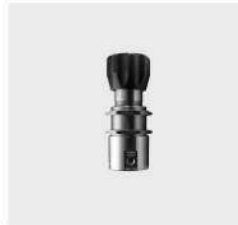
| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|---|--------------------|---|
| <ul style="list-style-type: none"> Designed for gas media High flow Piston Sensed Self venting Optional captured venting Air loaded & dome loaded designs available | 10000 psig / 689.5 bar (See data sheet) | Cv: 1.0 Cv: 2.0 | SAE 360 Brass 316 Stainless Steel 303 Stainless Steel |

3020 SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|--|--|--------------------------------------|
| <ul style="list-style-type: none"> Designed for gas media 15 micron stainless steel valve cartridge filter Piston Sensed Captured venting Low-torque hand knob | 10000 psig / 689.5 bar (Stainless Steel) | Cv: 0.04 Cv: 0.06 Cv: 0.12 Cv: 0.2 Cv: 0.3 | SAE 360 Brass 316 Stainless Steel |

6020 SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|--|--|--|
| <ul style="list-style-type: none"> Hydraulic Piston Sensed Captured venting Low-torque hand knob | 10000 psig / 689.5 bar (Stainless Steel) | Cv: 0.06 Cv: 0.12 Cv: 0.2 Cv: 0.3 | SAE 360 Brass 316 Stainless Steel |
| | 6000 psig / 413.7 bar (Brass) | | |

3023 SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|-----------------------------|--|---------------------|
| <ul style="list-style-type: none"> Designed for gas media Captured venting Piston Sensed Vespel® seat Optional panel mounting nuts | 15000 psig / 1034.21 bar | Cv: 0.06 Cv: 0.12 Cv: 0.2 Cv: 0.3 | 316 Stainless Steel |

3023AL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|-----------------------------|----------------------|---------------------|
| <ul style="list-style-type: none"> Designed for gas media Air loaded, Piston Sensed Compatible with electro-pneumatic controllers Captured venting Optional panel mounting nuts & gauges | 15000 psig / 1034.21 bar | Cv: 0.06 Cv: 0.12 | 316 Stainless Steel |

6023 SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|-----------------------------|----------------------|---------------------|
| <ul style="list-style-type: none"> Hydraulic, piston sensed Captured venting Choice of 17-4 stainless steel or Vespel® seat Optional panel mounting nuts | 15000 psig / 1034.21 bar | Cv: 0.06 Cv: 0.12 | 316 Stainless Steel |

6023AL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|-----------------------------|----------------------------------|---------------------|
| <ul style="list-style-type: none"> Hydraulic, air loaded Captured venting 17-4 Stainless Steel, hardened or Vespel® seat Optional panel mounting nuts | 15000 psig / 1034.21 bar | Cv: 0.06 Cv: 0.12 Cv: 0.20 | 316 Stainless Steel |

3025 SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|--------------------------|---------------|----------------------|
| <ul style="list-style-type: none"> • Piston Sensed • Pneumatic • Captured venting • 17-4 Stainless Steel hardened valves • Air loaded designs available | 20000 psig / 1378.95 bar | Cv: 0.04 | 17-4 Stainless Steel |

3025AL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|--------------------------|---------------|----------------------|
| <ul style="list-style-type: none"> • Piston Sensed • Air loaded • Captured venting • 17-4 Stainless Steel hardened valves • Compatible w/ electro-pneumatic controllers | 20000 psig / 1378.95 bar | Cv: 0.043 | 17-4 Stainless Steel |

3025HPL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|--------------------------|---------------|----------------------|
| <ul style="list-style-type: none"> • Piston Sensed • High pressure loaded • Captured venting • 1500 psig (103.42 bar) max loading pressure | 20000 psig / 1378.95 bar | Cv: 0.04 | 17-4 Stainless Steel |

6025 SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|--------------------------|----------------------------------|----------------------|
| <ul style="list-style-type: none"> • Hydraulic • Piston Sensed • Captured venting • 17-4 Stainless Steel hardened valves • Air loaded designs available | 20000 psig / 1378.95 bar | Cv: 0.06 Cv: 0.12 Cv: 0.20 | 17-4 Stainless Steel |

6025AL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|--------------------------|----------------------------------|----------------------|
| <ul style="list-style-type: none"> • Hydraulic, Piston Sensed • Air loaded • Captured venting • 17-4 SS hardened valves • Compatible w/ electro-pneumatic controllers | 20000 psig / 1378.95 bar | Cv: 0.06 Cv: 0.12 Cv: 0.30 | 17-4 Stainless Steel |

5033DL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|-----------------------|---------------|---------------------|
| <ul style="list-style-type: none"> • Dome loaded • Piston sensed • 1:1 dome load • Optional external sensing port for improved accuracy | 6000 psig / 413.7 bar | Cv: 3.3 | 316 Stainless Steel |

5050 SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|-----------------------|---------------|---|
| <ul style="list-style-type: none"> • Preset outlet pressures • Diaphragm sensed • Buna-n or Viton® seat • Max preset outlet pressure 200 psig / 13.79 bar | 1000 psig / 68.95 bar | Cv: 5.0 | 303 Stainless Steel 316 Stainless Steel Aluminum, Clear Anodize Monel 400® |

5050DL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|-----------------------|---------------|---|
| <ul style="list-style-type: none"> • Dome loaded • Diaphragm sensed • Buna-n seat • 1:1 dome load • Max dome load 100 psig / 6.89 bar | 1000 psig / 68.95 bar | Cv: 5.0 | 303 Stainless Steel 316 Stainless Steel Aluminum, Clear Anodize |

5050DLB SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|-----------------------|---------------|---|
| <ul style="list-style-type: none"> • Dome loaded / bias spring • Diaphragm sensed • Buna-n seat • dome load + bias spring pressure = outlet pressure • Max dome load 100 psig / 6.89 bar | 1000 psig / 68.95 bar | Cv: 5.0 | 303 Stainless Steel 316 Stainless Steel Aluminum, Clear Anodize |

5060DL SERIES

| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|-----------------------|---------------|---------------------|
| <ul style="list-style-type: none"> • Dome loaded • Piston sensed • 1:1 dome load • Optional external sensing port for improved accuracy | 6000 psig / 413.7 bar | Cv: 6.0 | 316 Stainless Steel |

2780 SERIES



| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|---|---|---|---|
| <ul style="list-style-type: none">• Micro, piston sensed regulator• Extremely compact & light-weight | 1000 psig / 68.95 bar (dependent on configuration) | Factory preset flows between 0.25-7.0 LPM (dependent on configuration) | Aluminum, Clear Anodize SAE 360 Brass 303 Stainless Steel |

2790 SERIES





| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|---|---------------|---|
| <ul style="list-style-type: none">• Micro manifold regulator• Piston sensed• Designed to drop into manifold housing minimizing volume. | 1500 psig / 241.3 bar 3000 psig / 206.84 bar | Cv: 0.0025 | Aluminum, Clear Anodize 303 Stainless Steel 316 Stainless Steel Titanium Ti-6AL-4V |


RO.1 SERIES





| FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | BODY MATERIAL |
|--|------------------------|---------------|--|
| <ul style="list-style-type: none">• Roughing regulator• Used with high pressure regulators for increased outlet pressure stability• 7/8" hex for easy torque | 10000 psig / 689.5 bar | Cv: 0.1 | 316 Stainless Steel 303 Stainless Steel |


| AO VALVES | FEATURES | MAX INLET PRESSURE | VALVE SEAT | BODY MATERIAL |
|---|--|------------------------|------------|----------------------|
|  | <ul style="list-style-type: none"> • High operating pressures • Low actuation pressure: 70 psig / 4.8 bar • Cv: 0.47, 0.8, or 2.0 • Stainless steel body • Compatible with electro-pneumatic controllers • Optional solenoid adapter • Normally open or closed designs • Designs for use with hypergolic fuels | 10000 psig / 689.5 bar | Vespel® | 316 Stainless Steel |
| | | | | 303 Stainless Steel |
| | | | | 17-4 Stainless Steel |

| 70A SERIES VALVE | FEATURES | MAX INLET PRESSURE | VALVE SEAT | BODY MATERIAL |
|---|---|------------------------|--------------|---------------------|
|  | <ul style="list-style-type: none"> • High operating pressures • Low torque at high pressure • Bubble-tight shut off • Angle configuration | 10000 psig / 689.5 bar | Vespel SP-1® | 316 Stainless Steel |
| | | | PTFE | SAE 360 Brass |
| | | | PCTFE | |
| | | | PEEK® | |

| 70AB SERIES VALVE | FEATURES | MAX INLET PRESSURE | VALVE SEAT | BODY MATERIAL |
|---|---|------------------------|--------------|---------------------|
|  | <ul style="list-style-type: none"> • Bleed/vent valve • Low torque at high pressure • Bubble-tight shut off • Metal stop prevents stem-over-travel • Can be used to bleed downstream pressure to 0 | 10000 psig / 689.5 bar | Vespel SP-1® | 316 Stainless Steel |
| | | | PTFE | SAE 360 Brass |
| | | | PCTFE | |
| | | | PEEK® | |

| 70G SERIES VALVE | FEATURES | MAX INLET PRESSURE | VALVE SEAT | BODY MATERIAL |
|---|---|-----------------------|--------------|---------------------|
|  | <ul style="list-style-type: none"> • High operating pressures • Low torque at high pressure • Bubble-tight shut off • Globe configuration • Cv 8.0 | 6000 psig / 413.7 bar | Vespel SP-1® | 316 Stainless Steel |
| | | | PCTFE | |
| | | | PEEK® | |

| PA32 SERIES VALVE | FEATURES | MAX INLET PRESSURE | FLOW CAPACITY | MATERIAL |
|---|--|-------------------------|---------------|---|
|  | <ul style="list-style-type: none"> • Pneumatically actuated, high pressure 3/2 valve • High process pressures for heavy actuation loads. • Cv: 0.025 • Actuation pressure: 100-150 PSIG (6.89-10.34 bar) • Normally open or normally closed operation | 3000 psig / 206.84 barg | Cv: 0.025 | SAE 360 Brass, Nickel Plated & 17-4 Stainless Steel 303 Stainless Steel & 17-4 Stainless Steel |

| RELIEF VALVE | FEATURES | MAX RELIEF PRESSURE | MATERIAL |
|---|--|-------------------------|---|
|  | <ul style="list-style-type: none"> • Captured outlet • PCTFE seat • Compatible with gas and hydraulic media | 1800 psig / 124.11 barg | SAE 360 Brass, Nickel Plated 6061-T6 Aluminum, Nickel Plated 303 Stainless Steel 316 Stainless Steel |



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