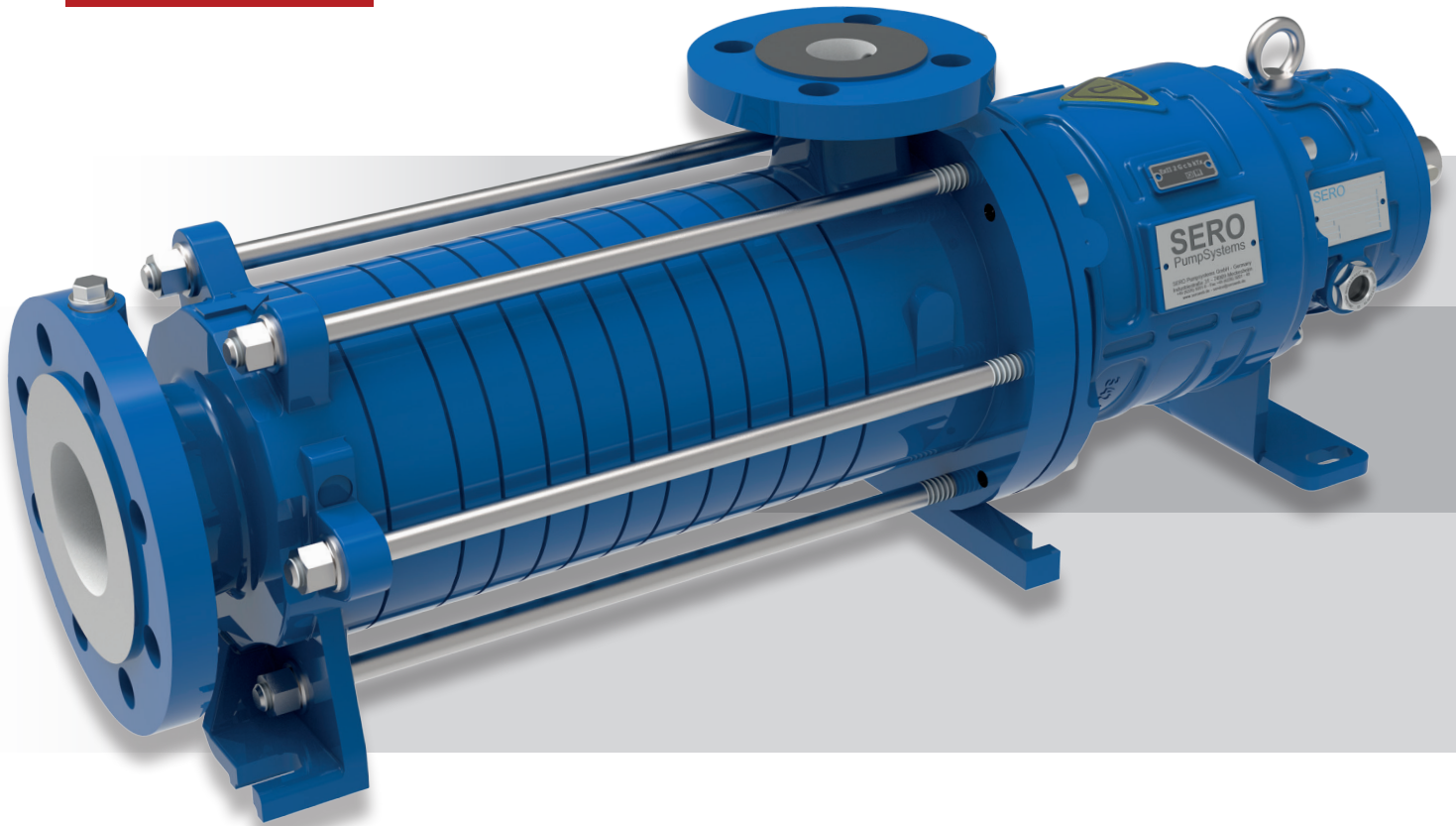


SEMA®

SERO
PumpSystems



Self-priming Side Channel Pump SEMA®.

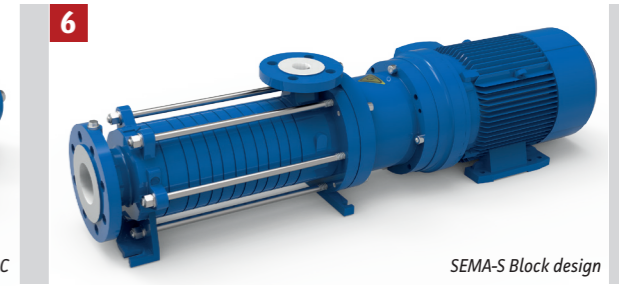
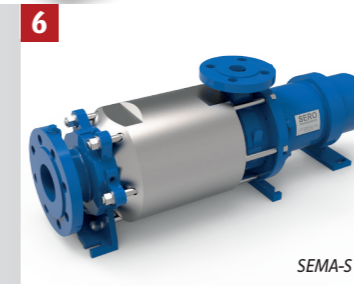
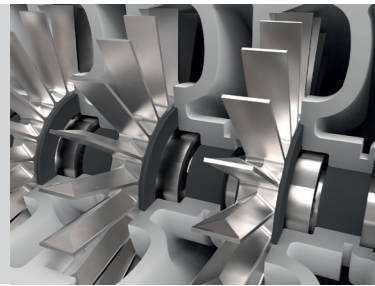
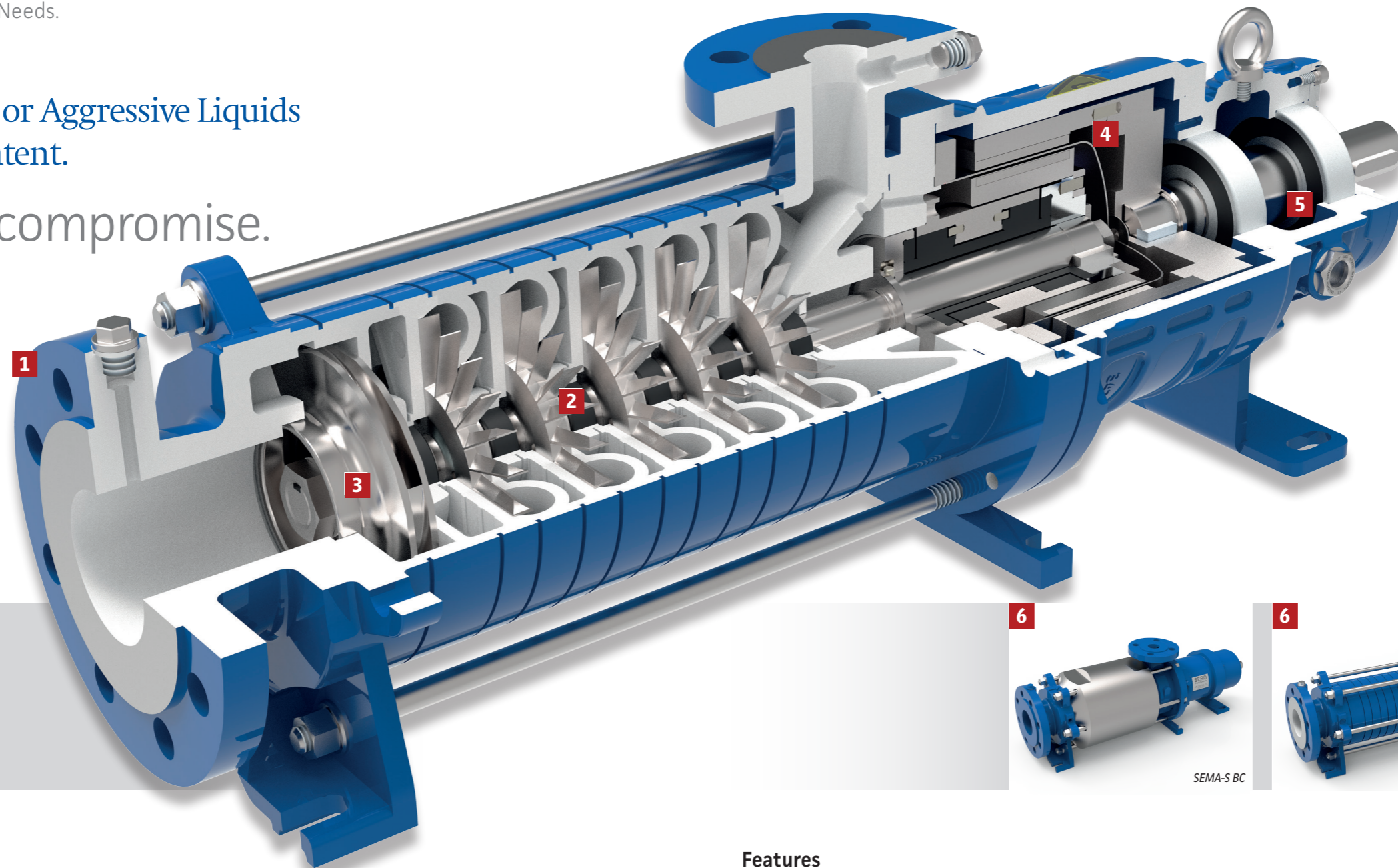
Sealless with
Magnetic Drive.

- Gas Handling
- Low NPSH requirements (SEMA-S)
- Leak Proof
- Modular Design with many Standardized Parts

Save handling of Toxic or Aggressive Liquids
also with High Gas Content.

SEMA® - No compromise.

SEMA®



Construction

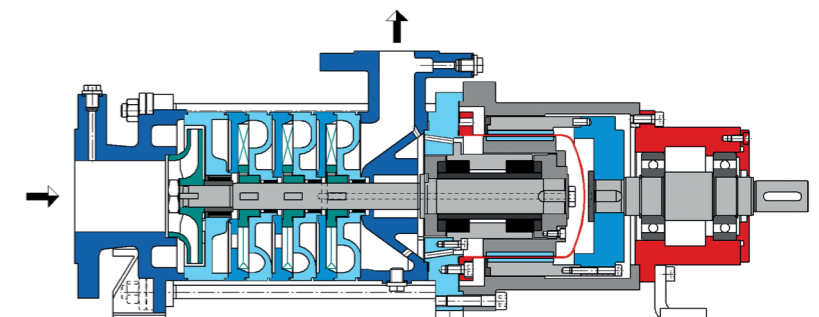
| SEMA 110-660 | |
|-----------------------|---|
| Nozzle position | suction: axial discharge: radial |
| Flanges | accord. EN 1092 PN 40 or ANSI 300 lbs as an option |
| Shaft seal | sealless due to magnetic coupling |
| Bearing | Combined medium lubricated axial-radial bearing in SiC or carbon and medium lubricated carbon bearings in every stage, plus two heavy atmospheric and maintenance-free single-row ball bearings greased for bearing lifetime. |
| Direction of rotation | counterclockwise (seen from drive-end) for SEMA-S and SEMA-L, clockwise for SEMA-Z |

Operating data

| SEMA 110-660 | | |
|---------------|---------------------------------------|----------------------------|
| Flow rates | up to 36 m³/h (1450 l/min) | up to 42 m³/h (1750 l/min) |
| Heads | up to 350 m (1450 l/min) | up to 550 m (1750 l/min) |
| Speed | 900 - 1800 1/min | |
| Temperature | -60 °C up to +220 °C | |
| Nom. Pressure | max. 40 bar (depending on mech. seal) | |
| NPSH | starts at 0,35 m (SEMA-S) | starts at 1 m (SEMA-L/Z) |

Features

- 1** Robust, compact castings in various designs.
- 2** Open star impellers with automatic hydraulic axial balance. Free of axial thrust.
- 3** SEMA-S with an additional NPSH-impeller guarantees extremely low NPSH values (axial inlet).
- 4** Permanent magnetic coupling with completely encapsulated inner rotor and oversized SiC drive-end sleeve bearing.
- 5** The heavy atmospheric ball bearings with lifetime grease-filling are maintenance-free. Oil lubrication as an option.
- 6** Specific models for special applications are available:
 - BC (Barrel casing for elevated environmental and operational safety)
 - B (Close-coupled block design for limited space and ideal alignment)
 - TT (Low temperature option for media down to -60° C)
 - K (High temperature option for media up to +220° C)



Material specification

| | cast iron (12) | ductile iron (62) | stainless steel (32) |
|----------------------------|--|-------------------|----------------------|
| Casings | GJS 400-18 | GJS 400-18 | 1.4408 |
| Inner stage casings | GJL 200 | GJS 400-15 | 1.4470 |
| Shaft | 1.4021 | 1.4021 | 1.4571 |
| Impeller | 1.4059 | 1.4059 | 1.4581 |
| Bearing bushing | Carbon | Carbon | Carbon |
| Sleeve bearing (mag drive) | S2 (SiC-SiC) S4 (SiC-Carbon) | | |
| Split can | 1.4571 [stainless steel] 2.4610 [Hastelloy C4] CFK [carbon fiber reinforced plastic] | | |
| Flange (split can) | 1.4571 [stainless steel] 2.4610 [Hastelloy C4] 1.4462 [duplex steel] | | |

[Subject to modifications]

Performance range 1450 min-1

