

## API Alloy Concept



# Application examples.

1. [Application](#) | 2. [Design](#) | 3. [Benefits](#)

## Oil and Gas Industry Onshore / Offshore:

- Corrosive marine environment
- Corrosive media: sea water
- Corrosive media: Hydrocarbons with H<sub>2</sub>S (NACE) and sea water
- Platforms, FPSOs, OEMs, e.g. pumps, compressors for above mentioned applications



## Industrial Gas Industry, Air separation:

- Oxygen service at higher pressure
- Nozzle & disc in Monel 400

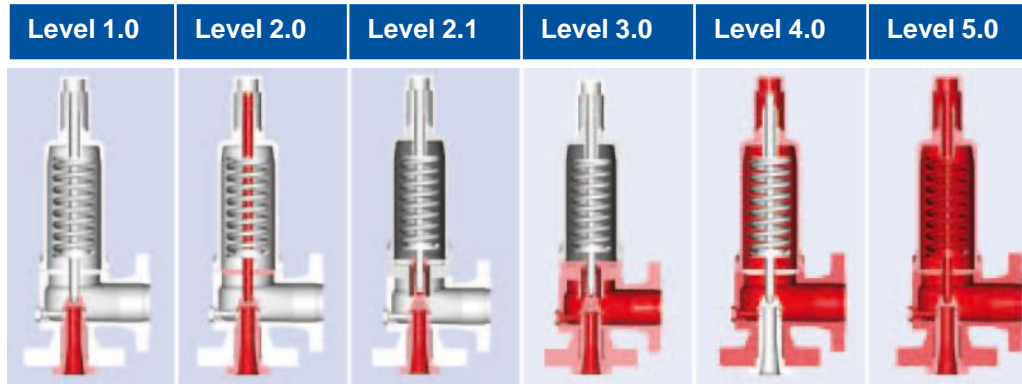
**LESER**

[The-Safety-Valve.com](http://The-Safety-Valve.com)

# Design. Type 526 Alloy Level Concept.

1. [Application](#) | 2. [Design](#) | 3. [Benefits](#)

Level system for economic solutions according to application requirement



- Level 1: Inlet wetted
- Level 2: Inlet wetted & trim
- Level 3: Inlet & outlet wetted
- Level 4: Valve external
- Level 5: Complete valve

# Design.

1. Application | 2. Design | 3. Benefits










| Level selection in corrosive applications |         |             |           |                          |         |               |                      |         |         |                              |   |                              |
|-------------------------------------------|---------|-------------|-----------|--------------------------|---------|---------------|----------------------|---------|---------|------------------------------|---|------------------------------|
| Level                                     |         | Description | Corrosive |                          | Opening |               | Repair after opening |         |         | Components in Alloy Material |   |                              |
| Conventional                              | Bellows |             | Medium    | Environment              | rare    | More frequent | immediate            | delayed | planned |                              |   |                              |
|                                           |         | 1.0         | 1.1       | Inlet wetted             | x       | –             | x                    | –       | x       | –                            | – | Nozzle, disc                 |
|                                           |         | 2.0         | –         | Inlet wetted and Trim    | x       | –             | –                    | x       | –       | x                            | – | Nozzle, disc, spindle, guide |
|                                           |         | –           | 2.1       | Inlet wetted and Bellows | x       | –             | –                    | x       | –       | x                            | – | Nozzle, disc, bellows        |
|                                           |         | –           | 3.1       | Inlet and Outlet wetted  | x       | –             | –                    | x       | –       | –                            | x | all medium wetted            |
|                                           |         | 4.0         | 4.1       | Valve outside            | –       | x             | N/A                  | N/A     | –       | –                            | x | all external                 |
|                                           |         | 5.0         | 5.1       | Complete Valve           | x       | x             | –                    | x       | –       | –                            | x | all components               |

**LESER**

The-Safety-Valve.com

# Materials. Alloy concept.

1. [Application](#) | 2. [Design](#) | 3. [Benefits](#)

| Inlet Wetted                                                                      |                                                                                   | Inlet Wetted & Guiding                                                            |                                                                                   | Inlet & Outlet Wetted                                                              | Valve External                                                                      |                                                                                     | Complete Valve                                                                      |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Level 1.0                                                                         | Level 1.1                                                                         | Level 2.0                                                                         | Level 2.1                                                                         | Level 3.1                                                                          | Level 4.0                                                                           | Level 4.1                                                                           | Level 5.0                                                                           | Level 5.1                                                                           |
|  |  |  |  |  |  |  |  |  |
| Conventional                                                                      | Bellows                                                                           | Conventional                                                                      | Bellows                                                                           | Bellows                                                                            | Conventional                                                                        | Bellows                                                                             | Conventional                                                                        | Bellows                                                                             |

**LESER**

[The-Safety-Valve.com](http://The-Safety-Valve.com)

# Benefits.

1. [Application](#) | 2. [Design](#) | 3. [Benefits](#)

---

- Economic solutions in Duplex and high-alloyed materials according to application requirements
- Defined material specifications in accordance with relevant codes and standards
- Short delivery time
- Easy configuration & ordering

**LESER**

[The-Safety-Valve.com](http://The-Safety-Valve.com)

# Benefits.

1. [Application](#) | 2. [Design](#) | 3. **Benefits**

| Part                               | Materials                                                                                                                                                      | Delivery time |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| Body                               | CF3M                                                                                                                                                           | 24 weeks      |
|                                    | 22Cr Duplex - CD3MN<br>25CR Super Duplex -<br>CD3MWCuN<br>Monel – M35-1<br>Hastelloy C22 - CX2MW<br>Inconel 625 - CW-6MC                                       | 15 weeks      |
| Nozzle<br>Disc<br>Guide<br>Spindle | 22Cr Duplex - F51, S31803<br>25CR Super Duplex - F55,<br>S32760<br>Monel 400 - SB-164, N04400<br>Hastelloy C4 - SB-574, N06455<br>Inconel 625 - SB-446, N06625 | 8 weeks       |
| Bellows                            | Inconel 625 / 316L                                                                                                                                             | 4 weeks       |
|                                    | Hastelloy C276 / Hastelloy C4                                                                                                                                  | 4 weeks       |
| Spring                             | Inconel X-750                                                                                                                                                  | 5 weeks       |

**LESER**

The-Safety-Valve.com

**API Alloy Concept**  
Thank you for your attention.

