

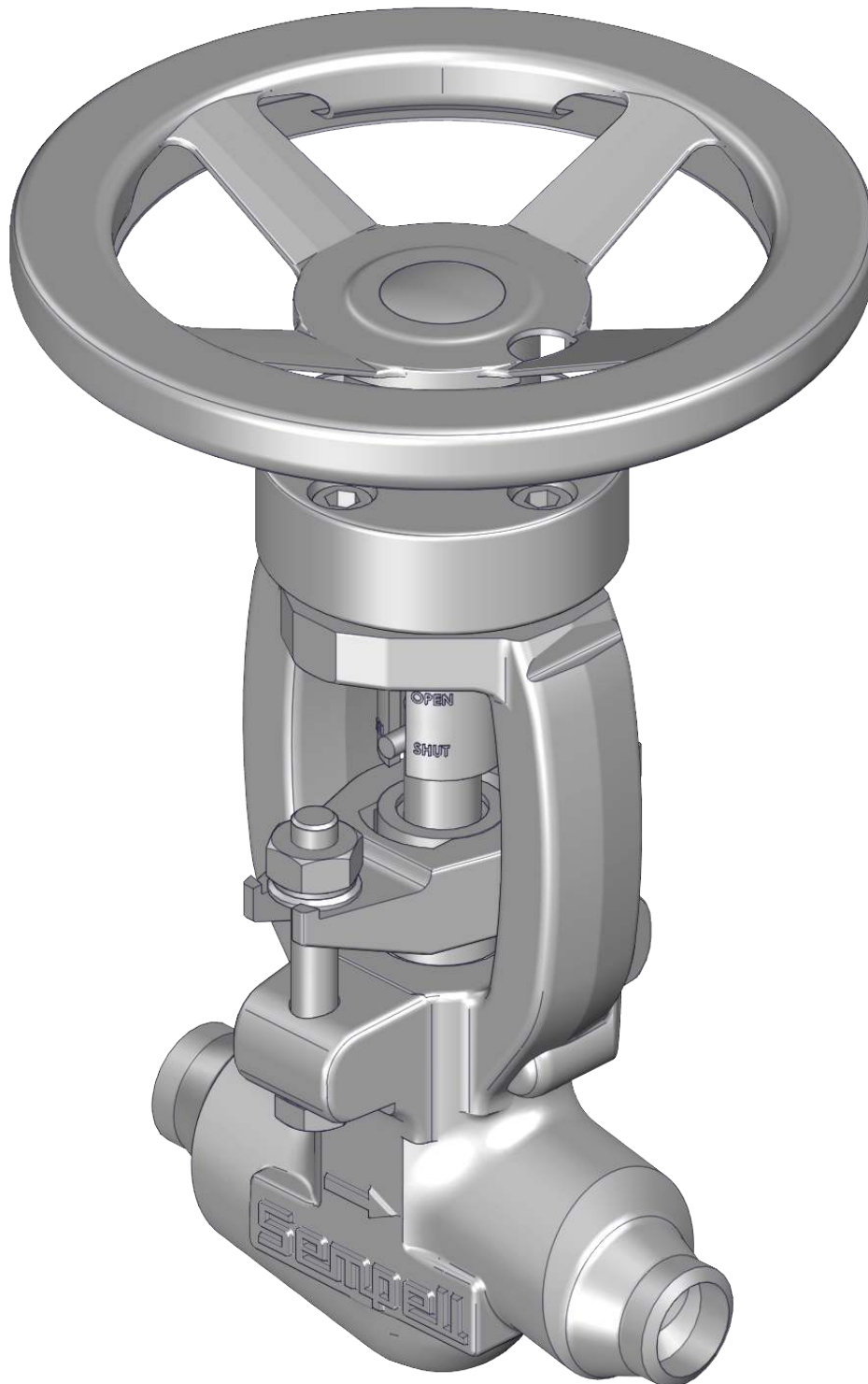


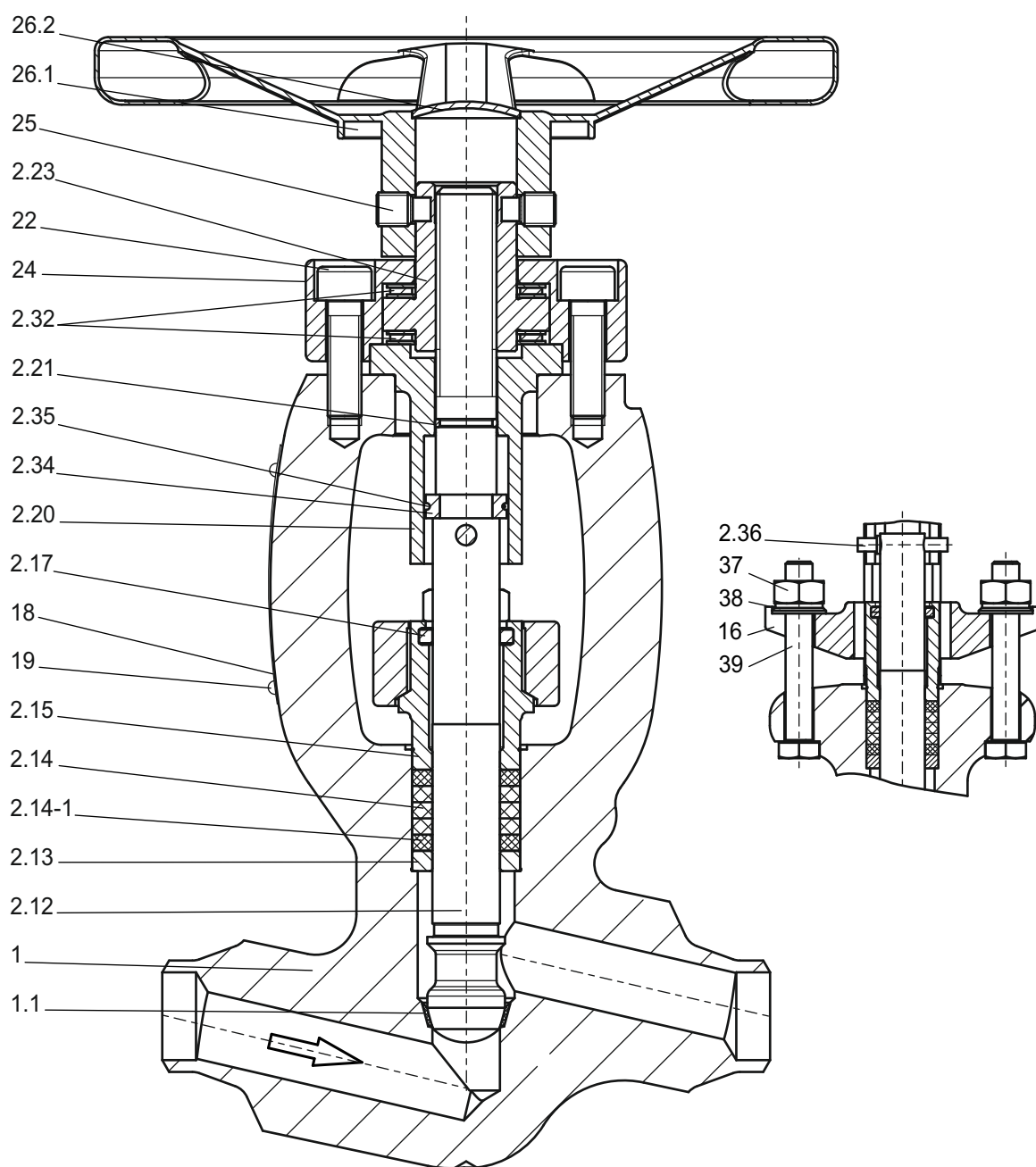
**EMERSON™**

# High Pressure Stop Valve

Type VA505

PN 100 - 500 / DN 10 - 50

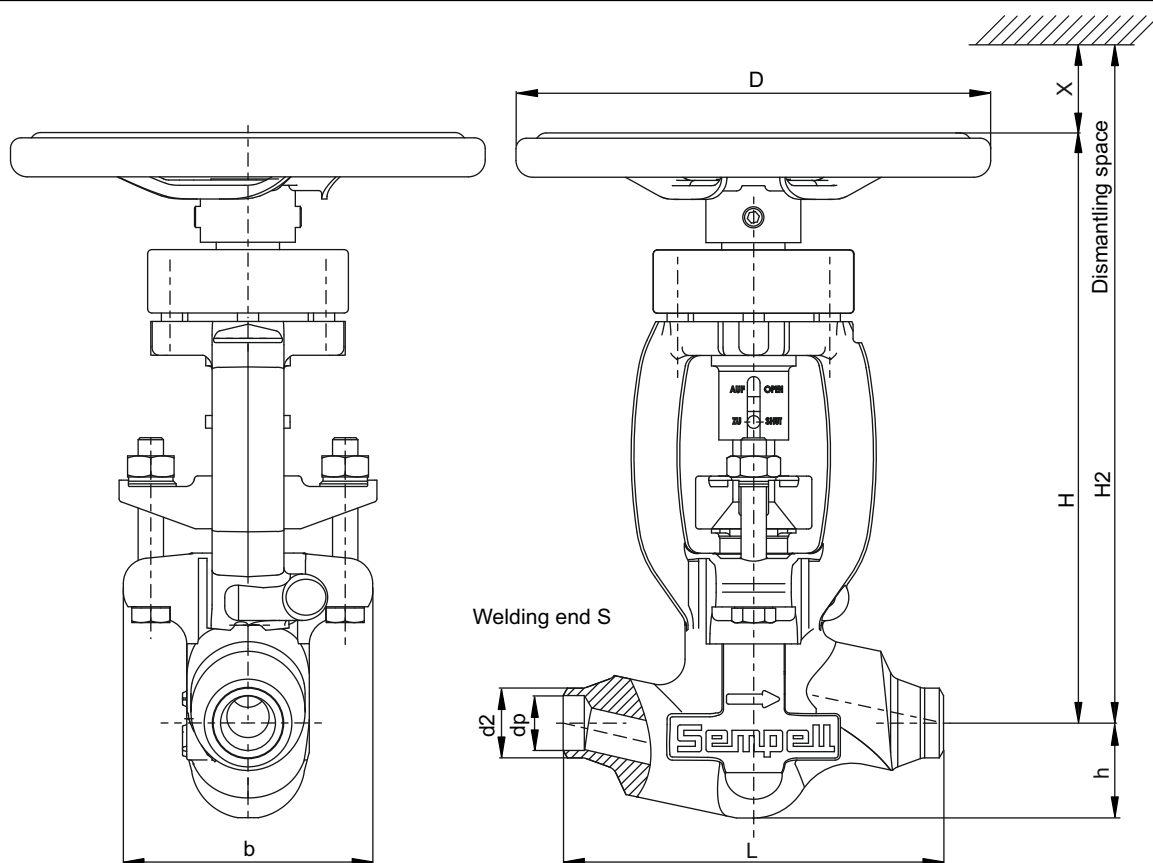




## Part List

| Material Specification |                      | 01                 | 11     | 10     | 13     | 30     |
|------------------------|----------------------|--------------------|--------|--------|--------|--------|
| Part                   | Designation          | Material           |        |        |        |        |
| 1                      | Body                 | 1.0460             | 1.5415 | 1.7335 | 1.7383 | 1.4903 |
| 1.1                    | Body seat            | Stellite           |        |        |        |        |
| 2.12                   | Stem                 | 17 % Cr            |        |        |        |        |
| 2.13                   | Base ring            | 13 % Cr            |        |        |        |        |
| ♦ 2.14                 | Packing              | Graphite           |        |        |        |        |
| ♦ 2.14-1               | Packing              | Graphite-Austenite |        |        |        |        |
| 2.15                   | Gland shaft          | 13 % Cr            |        |        |        |        |
| ♦ 2.17                 | Wiper ring           | Graphite           |        |        |        |        |
| 2.20                   | Guide bush           | 13 % Cr            |        |        |        |        |
| ♦ 2.21                 | O-ring               | FKM                |        |        |        |        |
| 2.23                   | Threaded bush        | Brass              |        |        |        |        |
| 2.32                   | Axial needle bearing | Steel              |        |        |        |        |
| 2.34                   | Split ring           | 17 % Cr            |        |        |        |        |
| 2.35                   | Ring                 | Austenite          |        |        |        |        |
| 2.36                   | Guide bolt           | 17 % Cr            |        |        |        |        |
| 16                     | Gland flange         | 13 % Cr            |        |        |        |        |
| 18                     | Nameplate            | Austenite          |        |        |        |        |
| 19                     | Grooved pin          | Austenite          |        |        |        |        |
| 22                     | Allen bolt           | Steel              |        |        |        |        |
| 24                     | Cover                | Steel              |        |        |        |        |
| 25                     | Threaded pin         | Steel              |        |        |        |        |
| 26.1                   | Handwheel            | Steel              |        |        |        |        |
| 26.2                   | Lock washer          | Steel              |        |        |        |        |
| 37                     | Hexagonal nut        | Steel              |        |        |        |        |
| 38                     | Washer               | Steel              |        |        |        |        |
| 39                     | Stuffing box screw   | Steel              |        |        |        |        |

♦ = Commissioning parts



## Dimensions

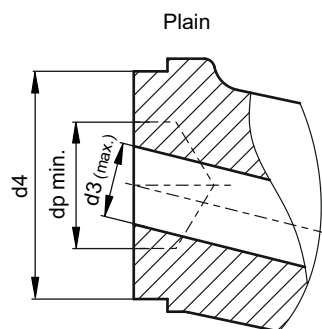
| DN<br>(Seat Ø) | PN        | Welding ends S |          |               |               | L<br>2) | b   | H              | H2<br>3)        | X              | h  | D   | U / stroke | Weight<br>approx. (Kg) |
|----------------|-----------|----------------|----------|---------------|---------------|---------|-----|----------------|-----------------|----------------|----|-----|------------|------------------------|
|                |           | dp             | d2       | dp min.<br>1) | d2 max.<br>1) |         |     |                |                 |                |    |     |            |                        |
|                |           | mm             |          |               |               |         |     |                |                 |                |    |     |            | mm                     |
| 10<br>(Ø 13)   | 100       | 13             | 18       | 6             | 38            | 160     | 115 | approx.<br>235 | approx.<br>635  | approx.<br>400 | 35 | 200 | 5          | 7                      |
|                | 160       | 13             | 18       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 250       | 12             | 18       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 320       | 12             | 18       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 400       | 10             | 18       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 500<br>4) | 11.5<br>4)     | 22<br>4) |               |               |         |     |                |                 |                |    |     |            |                        |
| 15<br>(Ø 13)   | 100       | 17             | 22       | 6             | 38            | 160     | 115 | approx.<br>235 | approx.<br>635  | approx.<br>400 | 35 | 200 | 5          | 7                      |
|                | 160       | 17             | 22       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 250       | 16             | 22       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 320       | 15             | 22       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 400       | 17             | 28       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 500<br>4) | 16.5<br>4)     | 32<br>4) |               |               |         |     |                |                 |                |    |     |            |                        |
| 25<br>(Ø 20)   | 100       | 28,5           | 35       | 18            | 54            | 180     | 122 | approx.<br>290 | approx.<br>790  | approx.<br>500 | 45 | 220 | 7,5        | 11                     |
|                | 160       | 27             | 35       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 250       | 26,5           | 35       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 320       | 24             | 35       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 400       | 29             | 44       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 500<br>4) | 23,5<br>4)     | 47<br>4) |               |               |         |     |                |                 |                |    |     |            |                        |
| 40<br>(Ø 40)   | 100       | 43             | 49       | 27            | 94            | 300     | 170 | approx.<br>459 | approx.<br>1159 | approx.<br>700 | 75 | 350 | 10         | 39                     |
|                | 160       | 41             | 49       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 250       | 38,5           | 49       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 320       | 36             | 49       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 400       | 40             | 61       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 500<br>4) | 33,5<br>4)     | 66<br>4) |               |               |         |     |                |                 |                |    |     |            |                        |
| 50<br>(Ø 40)   | 100       | 54             | 61       | 27            | 94            | 300     | 170 | approx.<br>459 | approx.<br>1159 | approx.<br>700 | 75 | 350 | 10         | 39                     |
|                | 160       | 52,5           | 61       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 250       | 45             | 61       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 320       | 59,5           | 77       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 400       | 49,5           | 77       |               |               |         |     |                |                 |                |    |     |            |                        |
|                | 500<br>4) | 45<br>4)       | 86<br>4) |               |               |         |     |                |                 |                |    |     |            |                        |

1) Different welding ends up to d2 max. / dp min acc. to customer's request

2) Other end-to-end dimension on request

3) Required dimension for disassembly with handwheel

4) not acc. to DIN



| DN    | d3 max. | d3* | dp min. | d4   |
|-------|---------|-----|---------|------|
| 10/15 | 13      | 6   | 8       | 40,5 |
| 10/15 | 13      | 10  | 11,8    | 40,5 |
| 10/15 | 13      | 13  | 15      | 40,5 |
| 25    | 20      | 14  | 17      | 56,5 |
| 25    | 20      | 18  | 20,7    | 56,5 |
| 25    | 20      | 20  | 22,8    | 56,5 |
| 40/50 | 40      | 20  | 24      | 97   |
| 40/50 | 40      | 30  | 34      | 97   |
| 40/50 | 40      | 40  | 44      | 97   |

\* corresponding to customer's request

**Application ranges** For welding ends. For flanged valves see values according to EN 1092.

| Body material | DIN    | Calculating temperature [°C]               |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|---------------|--------|--------------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|               |        | 20                                         | 250 | 300 | 350 | 400 | 450 | 480 | 490 | 500 | 510 | 520 | 530 | 540 | 550 | 560 | 570 | 580 | 590 | 600 | 610 | 620 |  |
|               |        | max. permissible operating pressure in bar |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| P250GH        | 1.0460 | 543                                        | 515 | 467 | 397 | 311 | 236 | 137 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 16Mo3         | 1.5415 | 543                                        | 515 | 508 | 501 | 494 | 484 | 474 | 398 | 311 | 236 | 186 | 149 |     |     |     |     |     |     |     |     |     |  |
| 13CrMo4-5     | 1.7335 | 543                                        | 515 | 508 | 501 | 494 | 484 | 478 | 476 | 474 | 398 | 315 | 257 | 207 | 161 | 132 | 107 |     |     |     |     |     |  |
| 11CrMo9-10    | 1.7383 | 543                                        | 515 | 508 | 501 | 494 | 484 | 478 | 476 | 474 | 435 | 377 | 328 | 282 | 240 | 207 | 178 | 153 | 132 | 116 |     |     |  |
| X10CrMoVNb9-1 | 1.4903 |                                            |     |     |     |     | 484 | 478 | 476 | 474 | 472 | 470 | 468 | 466 | 464 | 462 | 449 | 397 | 352 | 311 | 269 | 235 |  |

# Coding System

