Base Load Power Hub (BLPH)

# DETAIL DRAWING INCLUDING NAMEPLATE DRAWING - CONTROL VALVES (AST)

Document Number: 1724000740-IN-DD-00005

Document Class: 2

| Rev. | Date | Description | Prepared | Reviewed | Approved |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| 03 | 27/08/2024 | Accepted for Construction (AFC) | AT | AP | AP |
| 02 | 05/08/2024 | Accepted for Construction (AFC) | AT | AP | AP |
| 01 | 28/06/2024 | Issue for Review (IFR) | AT | AP | AP |
| 00 | 10/05/2024 | Issue for Review (IFR) | AT | AP | AP |



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| CROSSWIND | HOLLANDSE KUST NOORD WIND PARK Project<br>Contract No. CW-I-WP4-2023-05 | ROSETTI MARINO |
|---|---|---|
| Document Title: | DETAIL DRAWING INCLUDING NAMEPLATE DRAWING - CONTROL VALVES (AST) | Sh. 2 of 15<br>Date: 27/08/2024<br>Rev. 03 |

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|---|---|---|---|---|---|---|---|---|---|
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| 2 | Table of Contents | X | X | X | X | | | | |
| 3 | Revision / Change Log | X | X | X | X | | | | |
| 4 | Detail Drawing including Nameplate Drawing | X | X | X | X | | | | |




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## Revision / Change Log

| Rev. | Description |
|---|---|
| 00 | ISSUE FOR REVIEW (IFR) |
| 01 | ISSUE FOR REVIEW (IFR) |
| 02 | ACCEPTED FOR CONSTRUCTION (AFC) |
| 03 | ACCEPTED FOR CONSTRUCTION (AFC) |
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## HOLDS LIST

| No. | Description |
|---|---|
| 1. | |
| 2. | |
| 3. | |
| 4. | |

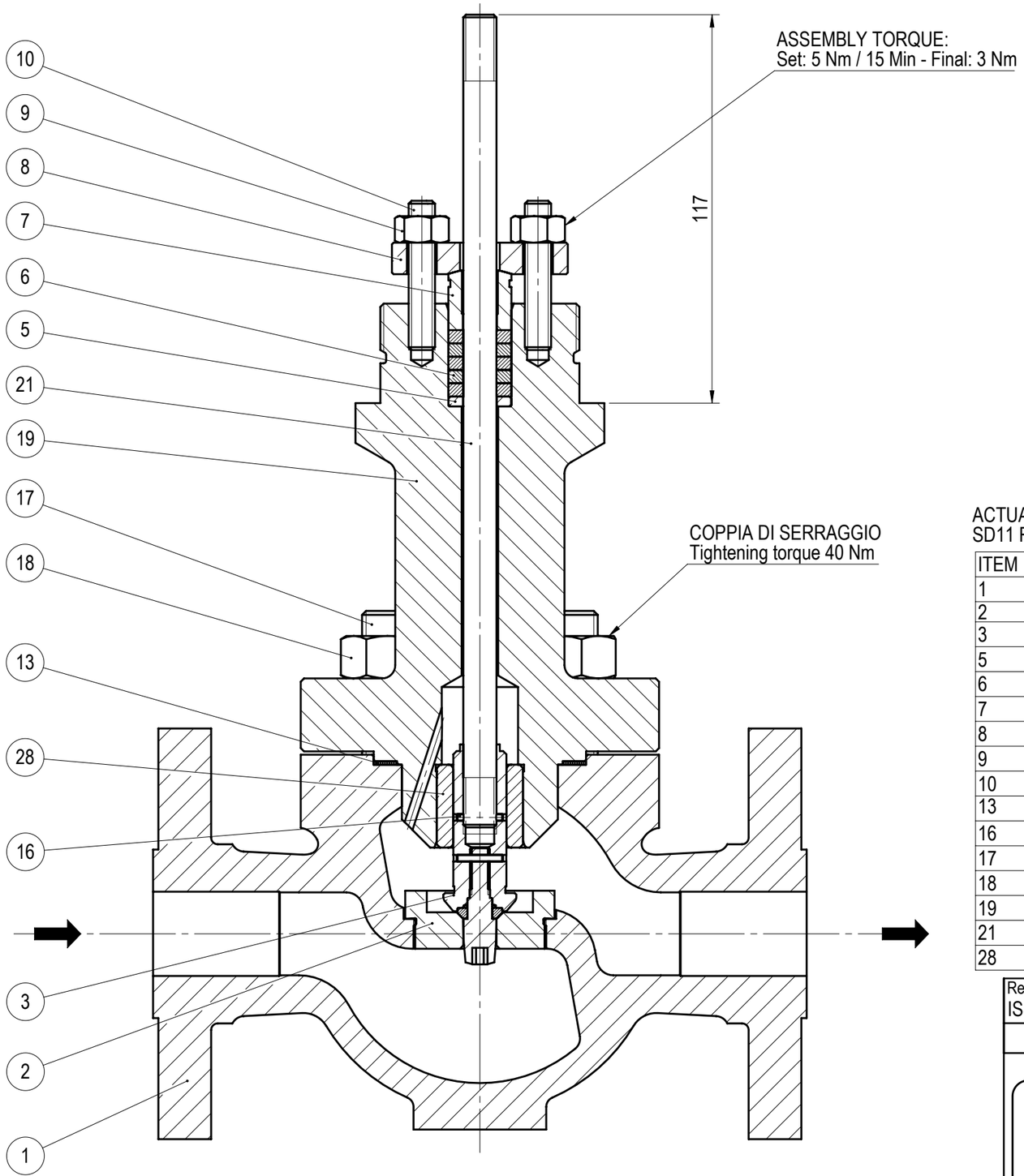



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Stroke: 13mm

| | |
|---|---|
| Cliente / Customer | ROSETTI MARINO S.P.A. |
| Ordine AST / AST job | CV2400221 |
| Sigle / Tags | 25-FV-031, 25-FV-032, 25-FV-033, 25-FV-034, 25-FV-036, 25-FV-038 |
| Matricole / Serials | 2400583, 2400584, 2400585, 2400586, 2400587, 2400588 |

FOR STEM AND PLUG MOUNTING




ACTUATOR TYPE
SD11 REVERSE ACTING SPRING RANGE 15÷30 psi

| ITEM | QTY | DWG | DESCRIPTION | MATERIAL |
|---|---|---|---|---|
| 1 | 1 | 84025121 | BODY | ASTM A351 CF3M |
| 2 | 1 | 240221-0100SE | SEAT | ASTM A479 316/316L |
| 3 | 1 | 240221-0100PL | PLUG | ASTM A479 316/316L + PTFE |
| 5 | 1 | UNCV0045-B0 | FINAL PACKING RING | ASTM A479 316/316L |
| 6 | 5 | UNCV0034-B0 | PACKING RING | PTFE (VTG) |
| 7 | 1 | UNCV0025-B0 | FOLLOWER | ASTM A479 316/316L |
| 8 | 1 | UNCV0023-B0 | PACKING FLANGE | ASTM A479 316/316L |
| 9 | 2 | UN0015-5/16 | NUT | ASTM A194 8M |
| 10 | 2 | 20TC08045 | STUD | ASTM A193/A320 B8M Cl.1 |
| 13 | 1 | UN0014-064 | GASKET | Graphite with AISI 316 reinforcement |
| 16 | 1 | UNCV0301-Z h=14 | PIN | ASTM A479 316/316L |
| 17 | 4 | 20TC12055 | STUD | ASTM A193/A320 B8M Cl.2 |
| 18 | 4 | UN0015-1/2 | NUT | ASTM A194 8M |
| 19 | 1 | 8407BN-001 | BONNET | ASTM A479 316/316L |
| 21 | 1 | 80ST03100245 | STEM | ASTM A479 316/316L |
| 28 | 1 | UN0278 | GUIDE BUSHING | ASTM A479 S21800 (NITRONIC 60) |

Revision Description
ISSUED

| Drawn | PINI | Checked | OLDANI | Approval | PEREGO | Date | 30-04-24 |
|---|---|---|---|---|---|---|---|

PROPERTY AND REPRODUCTION ARE SUBJECTED TO THE LAW

Scale

Mass kg 11.64

CR 00298

NOTE:

Description
CV-8407 VALVE ASSEMBLY
NPS 1" PORT 1/4" CL. 300 RF
WITH SOFT SEATING

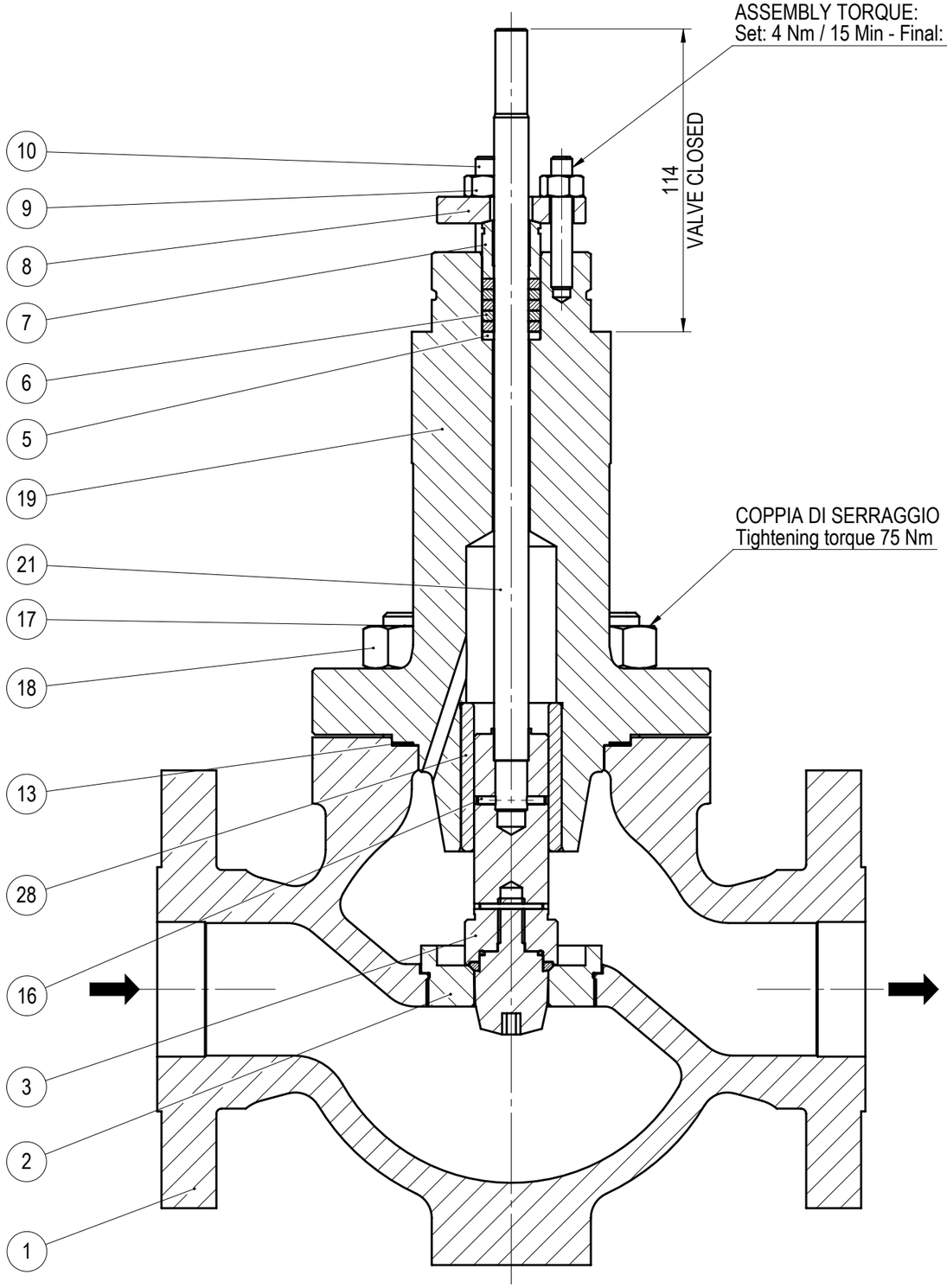
Dwg No
240221-0100AA

Rev. 0

Sheet 1 of 1

A3 - AST S.p.A. Via R. Merendi, 40 - 20010 Cornaredo (Mi) - Tel.02 934848.1 - Control valve division

Stroke: 25mm




| | |
|---|---|
| Cliente / Customer | ROSETTI MARINO S.P.A. |
| Ordine AST / AST job | CV2400221 |
| Sigle / Tags | 25-PV-035, 25-PV-037, 25-PV-040, 25-PV-043, 25-PV-046, 25-PV-049 |
| Matricole / Serials | 2400589, 2400590, 2400591, 2400592, 2400593, 2400594 |

FOR STEM AND PLUG MOUNTING

ACTUATOR TYPE
SD13 REVERSE ACTING SPRING RANGE 20÷44 psi

| ITEM | QTY | DWG | DESCRIPTION | MATERIAL |
|---|---|---|---|---|
| 1 | 1 | 84.50.121 | BODY | ASTM A351 CF3M |
| 2 | 1 | 240221-0200SE | SEAT | ASTM A479 316/316L |
| 3 | 1 | 240221-0200PL | PLUG | ASTM A479 316/316L + PTFE |
| 5 | 1 | UNCV0045-C0 | FINAL PACKING RING | ASTM A479 316/316L |
| 6 | 5 | UNCV0034-C0 | PACKING RING | Graphite (VF1) |
| 7 | 1 | UNCV0025-C0 | FOLLOWER | ASTM A479 316/316L |
| 8 | 1 | UNCV0023-C0 | PACKING FLANGE | ASTM A479 316/316L |
| 9 | 3 | UN0015-5/16 | NUT | ASTM A194 8M |
| 10 | 3 | 20TC08050 | STUD | ASTM A193/A320 B8M Cl.1 |
| 13 | 1 | UNCV0160-090-074 △1 | GASKET | PTFE △1 |
| 16 | 1 | UNCV0301-A h=26 | PIN | ASTM A479 316/316L |
| 17 | 4 | 20T (20TC16065) | STUD | ASTM A193/A320 B8M Cl.2 |
| 18 | 4 | UN0015-5/8 | NUT | ASTM A194 8M |
| 19 | 1 | 8407BN-007 | BONNET | ASTM A479 316/316L |
| 21 | 1 | 80ST03110295 | STEM | ASTM A479 316/316L |
| 28 | 1 | UN0237 | GUIDE BUSHING | ASTM A479 S21800 (NITRONIC 60) |

Revision Description
△1 MODIFIED ITEM 13

| Drawn | PINI | Checked | OLDANI | Approval | PEREGO | Date | 16-05-24 |
|---|---|---|---|---|---|---|---|

PROPERTY AND REPRODUCTION ARE SUBJECTED TO THE LAW

Scale

Mass kg 29.9

CR 00299

NOTE:

Description
CV-8407 VALVE ASSEMBLY
NPS 2" PORT 1" CL. 300 RF
WITH SOFT SEATING

Dwg No
240221-0200AA

Rev. 1

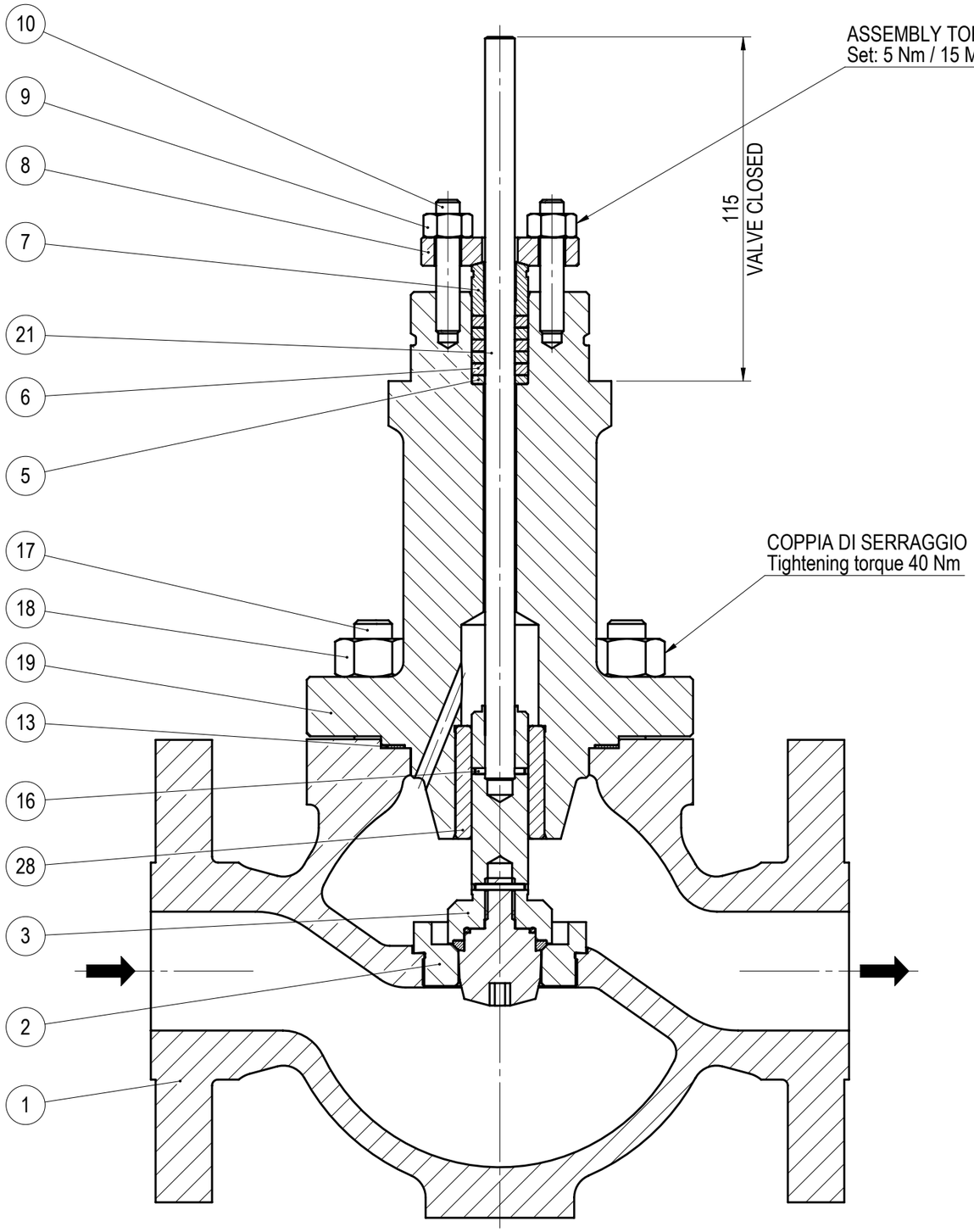
Sheet 1 of 1

A3 - AST S.p.A. Via R. Merendi, 40 - 20010 Cornaredo (MI) - Tel.02 934848.1 - Control valve division

Stroke: 20mm

| | |
|---|---|
| Cliente / Customer | ROSETTI MARINO S.P.A. |
| Ordine AST / AST job | CV2400221 |
| Sigle / Tags | 25-PV-055A |
| Matricole / Serials | 2400595 |

FOR STEM AND PLUG MOUNTING




ACTUATOR TYPE
SD11 REVERSE ACTING SPRING RANGE 20÷44 psi

| ITEM | QTY | DWG | DESCRIPTION | MATERIAL |
|---|---|---|---|---|
| 1 | 1 | 84.40.121 | BODY | ASTM A351 CF3M |
| 2 | 1 | 240221-0300SE | SEAT | ASTM A479 316/316L |
| 3 | 1 | 240221-0300PL | PLUG | ASTM A479 316/316L + PTFE |
| 5 | 1 | UNCV0045-B0 | FINAL PACKING RING | ASTM A479 316/316L |
| 6 | 5 | UNCV0034-B0 | PACKING RING | Graphite (VF1) |
| 7 | 1 | UNCV0025-B0 | FOLLOWER | ASTM A479 316/316L |
| 8 | 1 | UNCV0023-B0 | PACKING FLANGE | ASTM A479 316/316L |
| 9 | 2 | UN0015-5/16 | NUT | ASTM A194 8M |
| 10 | 2 | 20TC08045 | STUD | ASTM A193/A320 B8M Cl.1 |
| 13 | 1 | UNCV0160-080-064 △1 | GASKET | PTFE △1 |
| 16 | 1 | UNCV0301-Z h=17 | PIN | ASTM A479 316/316L |
| 17 | 6 | 20TC12055 | STUD | ASTM A193/A320 B8M Cl.2 |
| 18 | 6 | UN0015-1/2 | NUT | ASTM A194 8M |
| 19 | 1 | 8407BN-004 | BONNET | ASTM A479 316/316L |
| 21 | 1 | 80ST03100250 | STEM | ASTM A479 316/316L |
| 28 | 1 | UN0350 | GUIDE BUSHING | ASTM A479 S21800 (NITRONIC 60) |

Revision Description
MODIFIED ITEM 13 AND PORT FOR TAG 25-PV-055B AS PER CUSTOMER COMMENTS △1

| Drawn | PINI | Checked | OLDANI | Approval | PEREGO | Date | 07-06-24 |
|---|---|---|---|---|---|---|---|

PROPERTY AND REPRODUCTION ARE SUBJECTED TO THE LAW

| Scale | Mass kg | CR | NOTE: |
|---|---|---|---|
| 1:1.75 | 19.81 | 00303 | |

Description
CV-8407 VALVE ASSEMBLY
NPS 1 1/2" PORT 1" CL.300 RF
WITH SOFT SEATING

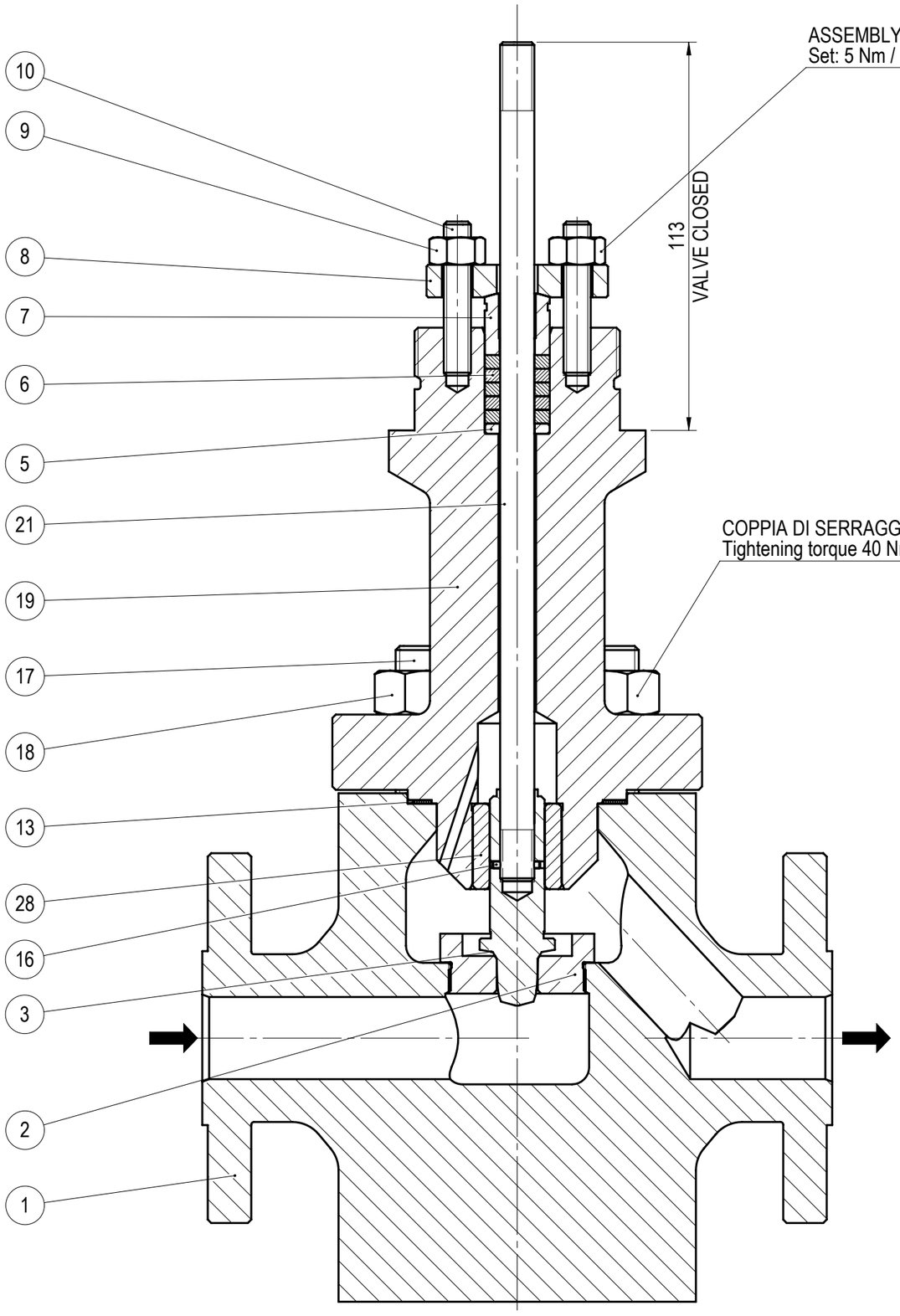
Dwg No
240221-0300AA

Rev. 1

Sheet 1 of 1

A3 - AST S.p.A. Via R. Merendi, 40 - 20010 Cornaredo (Mi) - Tel.02 934848.1 - Control valve division

Stroke: 13mm




| | |
|---|---|
| Cliente / Customer | ROSETTI MARINO S.P.A. |
| Ordine AST / AST job | CV2400221 |
| Sigle / Tags | 64-PV-031A, 64-PV-031B |
| Matricole / Serials | 2400597, 2400598 |

FOR STEM AND PLUG MOUNTING

ACTUATOR TYPE
SD11 REVERSE ACTING SPRING RANGE 15÷30 psi

| ITEM | QTY | DWG | DESCRIPTION | MATERIAL |
|---|---|---|---|---|
| 1 | 1 | 8407BD-007 (RF) | BODY | ASTM A350 LF2 Cl. 1 |
| 2 | 1 | 8407SE-009 | SEAT | ASTM A479 316/316L+ CoCr-A H.F. |
| 3 | 1 | 8407PL-080 | PLUG | ASTM A479 316/316L+ CoCr-A H.F. |
| 5 | 1 | UNCV0045-B0 | FINAL PACKING RING | ASTM A479 316/316L |
| 6 | 5 | UNCV0034-B0 | PACKING RING | PTFE (VTG) |
| 7 | 1 | UNCV0025-B0 | FOLLOWER | ASTM A479 316/316L |
| 8 | 1 | UNCV0023-B0 | PACKING FLANGE | ASTM A479 316/316L |
| 9 | 2 | UN0015-5/16 | NUT | ASTM A194 8M |
| 10 | 2 | 20TC08045 | STUD | ASTM A193/A320 B8M Cl.1 |
| 13 | 1 | UN0014-064 | GASKET | Graphite with AISI 316 reinforcement |
| 16 | 1 | UNCV0301-Z h=14 | PIN | ASTM A479 316/316L |
| 17 | 4 | 20TC12055 | STUD | ASTM A193/A320 B8M Cl.2 |
| 18 | 4 | UN0015-1/2 | NUT | ASTM A194 8M |
| 19 | 1 | 8407BN-001 | BONNET | ASTM A350 LF2 Cl. 1 |
| 21 | 1 | 80ST03100245 | STEM | ASTM A479 316/316L |
| 28 | 1 | UN0278 | GUIDE BUSHING | ASTM A479 410 35÷38 HRC |

Revision Description
MODIFIED PORT AND ITEM 2 AND 3

| Drawn | ABD ELSALAM | Checked | PINI | Approval | PEREGO | Date | 27-05-24 |
|---|---|---|---|---|---|---|---|

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Scale

Mass kg 20.97

CR 00304

NOTE:

Description
CV-8407 VALVE ASSEMBLY
NPS 1" PORT 3/8" CL. 150 RF

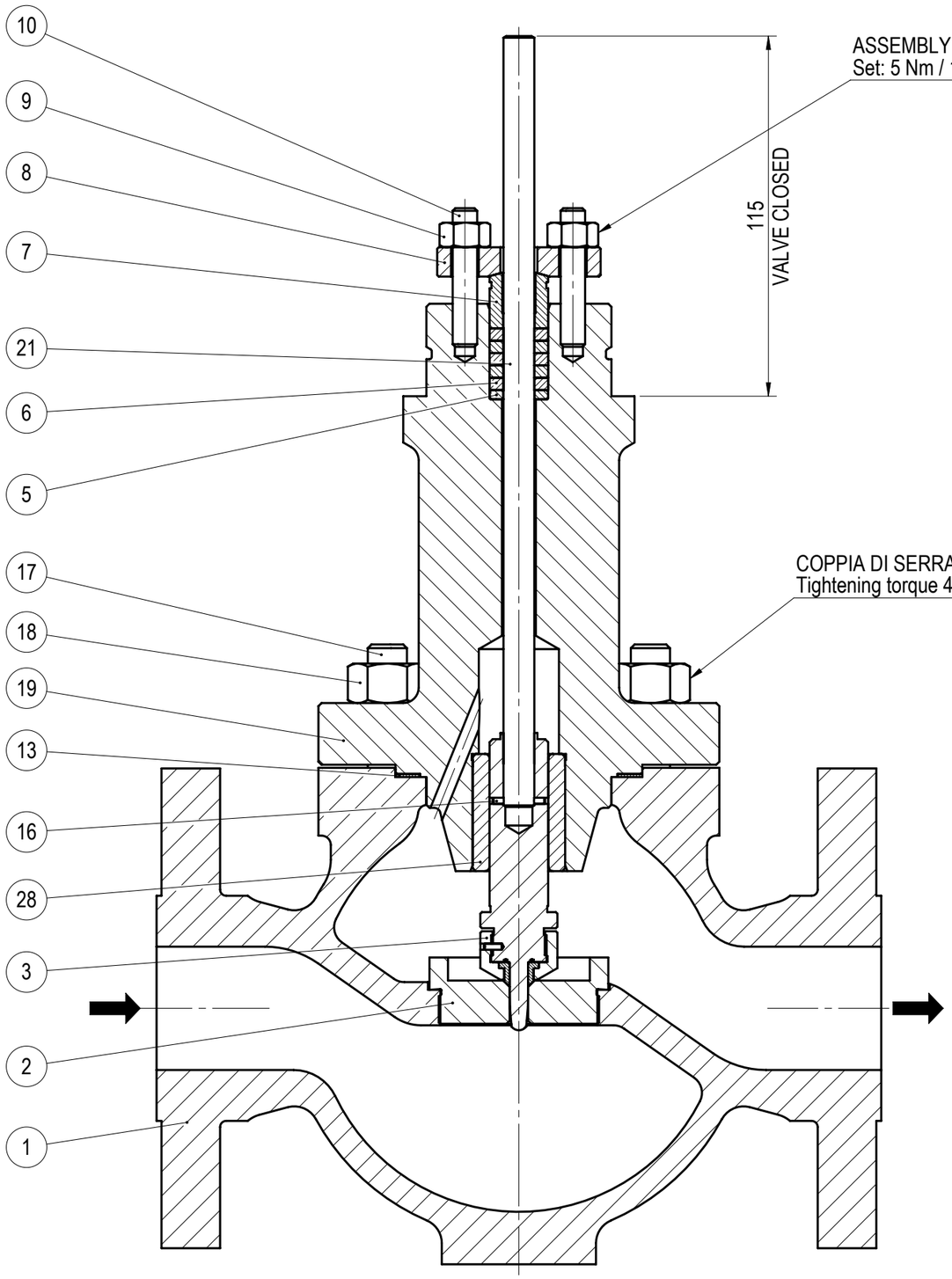
Dwg No
240221-0400AA

Rev. 1

Sheet 1 of 1

A3 - AST S.p.A. Via R. Merendi, 40 - 20010 Cornaredo (Mi) - Tel.02 934848.1 - Control valve division

Stroke: 13mm




| | |
|---|---|
| Cliente / Customer | ROSETTI MARINO S.P.A. |
| Ordine AST / AST job | CV2400221 |
| Sigle / Tags | 25-PV-055B |
| Matricole / Serials | 2400596 |

FOR STEM AND PLUG MOUNTING

ACTUATOR TYPE
SD11 REVERSE ACTING SPRING RANGE 20-36 psi
(OBTAINABLE FROM SD11R / 20-44 psi Stroke 20)

| ITEM | QTY | DWG | DESCRIPTION | MATERIAL |
|---|---|---|---|---|
| 1 | 1 | 84.40.121 | BODY | ASTM A351 CF3M |
| 2 | 1 | 240221-0500SE | SEAT | ASTM A479 316/316L |
| 3 | 1 | 240221-0500PL | PLUG | ASTM A479 316/316L + PTFE |
| 5 | 1 | UNCV0045-B0 | FINAL PACKING RING | ASTM A479 316/316L |
| 6 | 5 | UNCV0034-B0 | PACKING RING | Graphite (VF1) |
| 7 | 1 | UNCV0025-B0 | FOLLOWER | ASTM A479 316/316L |
| 8 | 1 | UNCV0023-B0 | PACKING FLANGE | ASTM A479 316/316L |
| 9 | 2 | UN0015-5/16 | NUT | ASTM A194 8M |
| 10 | 2 | 20TC08045 | STUD | ASTM A193/A320 B8M Cl.1 |
| 13 | 1 | UNCV0160-080-064 | GASKET | PTFE |
| 16 | 1 | UNCV0301-Z h=17 | PIN | ASTM A479 316/316L |
| 17 | 6 | 20TC12055 | STUD | ASTM A193/A320 B8M Cl.2 |
| 18 | 6 | UN0015-1/2 | NUT | ASTM A194 8M |
| 19 | 1 | 8407BN-004 | BONNET | ASTM A479 316/316L |
| 21 | 1 | 80ST03100250 | STEM | ASTM A479 316/316L |
| 28 | 1 | UN0350 | GUIDE BUSHING | ASTM A479 S21800 (NITRONIC 60) |

Revision Description
ISSUED

| Drawn | PINI | Checked | OLDANI | Approval | PEREGO | Date | 07-06-24 |
|---|---|---|---|---|---|---|---|

PROPERTY AND REPRODUCTION ARE SUBJECTED TO THE LAW

Scale

Mass kg 19.75

CR 00303

NOTE:

Description
CV-8407 VALVE ASSEMBLY
NPS 1 1/2" PORT 5/32" CL.300
RF WITH SOFT SEATING

Dwg No
240221-0500AA

Rev. 0

Sheet 1 of 1

A3 - AST S.p.A. Via R. Merendi, 40 - 20010 Cornaredo (MI) - Tel.02 934848.1 - Control valve division

| Rev | Data *Date* | Descrizione *Description* | Redatto *Edited* | Controllato *Checked* | Approvato *Approved* |
|---|---|---|---|---|---|
| 1 | 24/07/2023 | Updated nameplate and added field description | T. PINI | A. PEREGO | A. PEREGO |
| 0 | 14/04/2023 | First issue | T. PINI | A. PEREGO | A. PEREGO |

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2. REFERENCE....3
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## 1. SCOPE

Present document reports layout and fields description of data plates to be applied on AST pressure equipment other than safety valves and changeover.
Data plates reported in this document are compliant to applicable European Directives and EN 19 standard.
Following instructions apply to control and on-off motorized valves, manual valves, check valves, desuperheaters, heating jacketing and pneumatic actuators.
The completed data plates must be affixed to all AST pressure equipment unless otherwise specified in the official documentation.

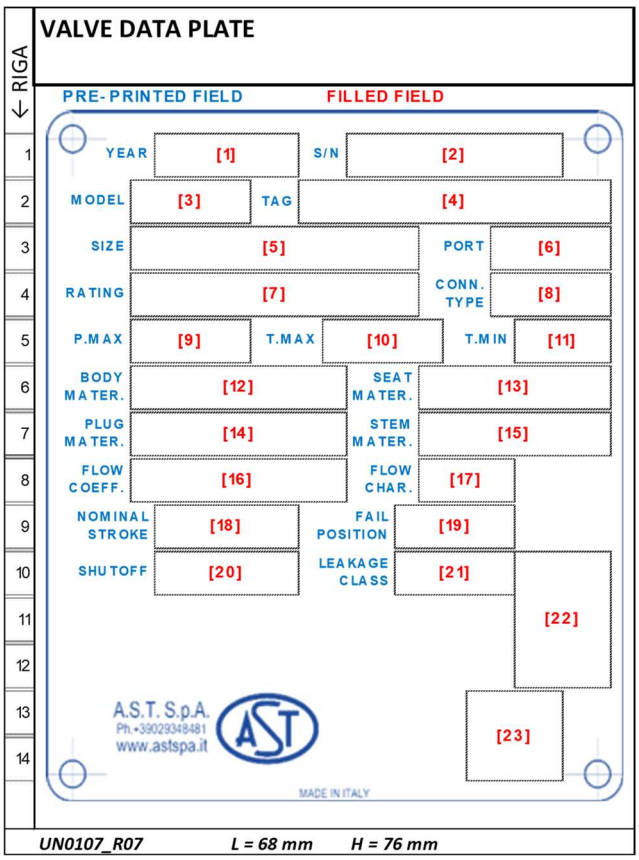
## 2. REFERENCE

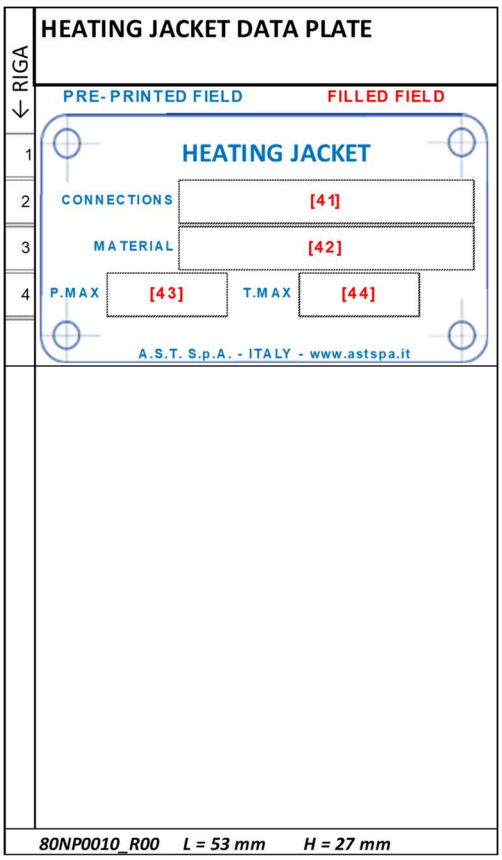
EN 19_2016 - Industrial valves - Marking of metallic valves
Directive 2014/68/EU - Pressure Equipment Directive (PED)
Directive 2014/34 EU - Equipment for potentially explosive atmospheres (ATEX)

## 3. DATA PLATE LIST

| # | DESCRIPTION | DRAWING NUMBER |
|---|---|---|
| **1.** | VALVE DATA PLATE | ***UN0107_R07*** |
| **2.** | HEATING JACKET DATA PLATE | ***80NP0010_R00*** |
| **3.** | PNEUMATIC ACTUATOR DATA PLATE (ASSEMBLED WITH AST VALVE) | ***UN7049_R04*** |
| **4.** | PNEUMATIC ACTUATOR DATA PLATE (SUPPLIED ALONE) | ***80NP0300_R00*** |
| **5.** | NOT ACTUATED DESUPERHEATER DATA PLATE | ***NP00-000-0049_R01*** |
| **6.** | FLOW DIRECTION ARROW (To be installed on all valves, desuperheaters and check valves) | ***20AA01401-B_R00*** |

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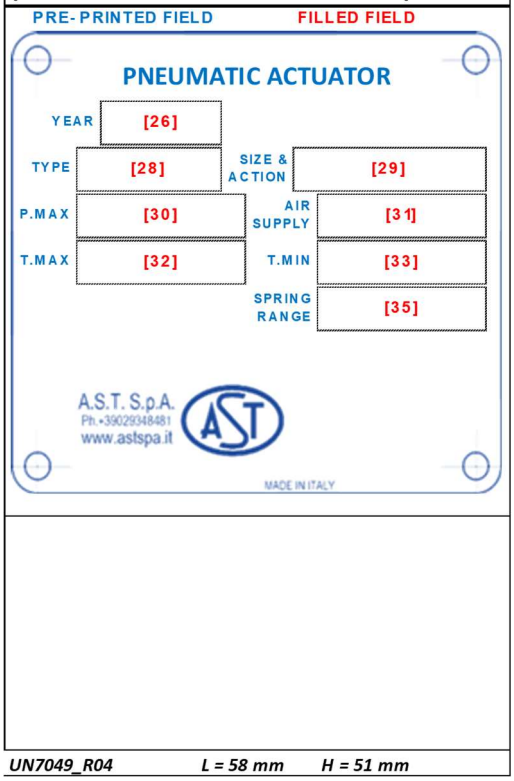

[1] Year of production
[2] Serial number
[3] Model (see TEC800)
[4] Tag number
[5] Nominal Dimension DN/NPS / Inlet/Outlet
[6] Seat nominal diameter
[7] Pressure Class Inlet/Outlet
[8] Connection Type / Inlet/Outlet
[9] Design Pressure
[10] Maximum Design Temperature
[11] Minimum Design Temperature
[12] Material of Body / Bonnet
[13] Material of Seat
[14] Material of Plug
[15] Material of Stem
[16] Rated Flow Coefficient
[17] Flow Characteristic
[18] Valve Nominal Stroke
[19] Fail Position in Lack of Energy / Air
[20] Shutoff Pressure
[21] Leakage Class
[22] MARKING
[23] ADDITIONAL MARKING
[24]
[25]

[41] Nominal dimension / Rating / Connection finishing in/out
[42] Heating jacket material
[43] Heating jacket design pressure
[44] Heating jacket design temperature
[45]

***Applies to:***
Control valves
On-off valves
Manual valves
Actuated desuperheaters (DS-3700)
Check valves

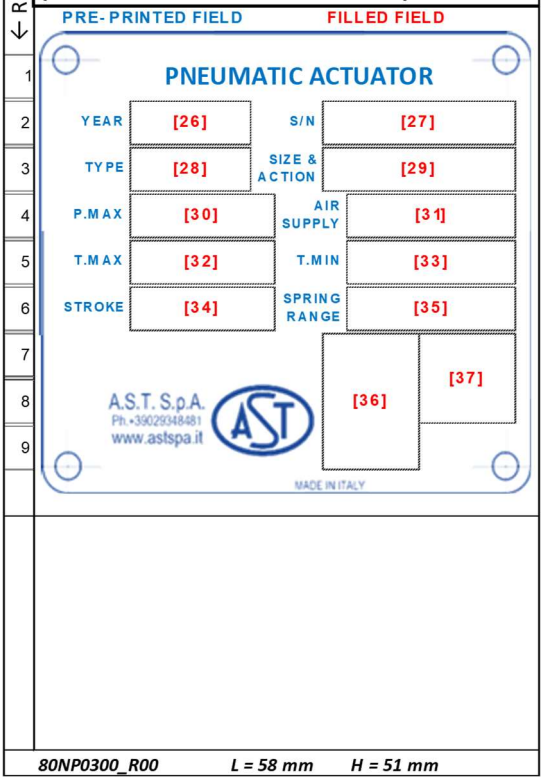
***Applies to:***
Heating jacketing and on valve bodies

**PNEUMATIC ACTUATOR DATA PLATE (WHEN ASSEMBLED WITH A VALVE)**




*UN7049_R04* *L = 58 mm* *H = 51 mm*

**PNEUMATIC ACTUATOR DATA PLATE (WHEN SUPPLIED STAND ALONE)**



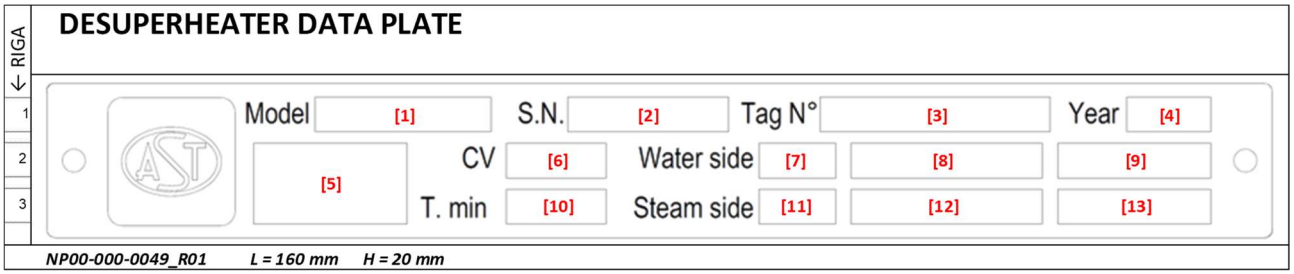

*80NP0300_R00* *L = 58 mm* *H = 51 mm*

[26] Year of production
[27] No if mounted on valve
[28] SD or MD or ...
[29] 9- 11- 13- 15- 18- 24- 18L- 24L- 335- 505- 505T+DIR/ REV
[30] Maximum design pressure
[31] Nominal supply pressure (Set AFR)
[32] Maximum temperature ALLOWED in operating environment
[33] Minimum temperature ALLOWED in operating environment
[34] No if mounted on valve (field [18] valve data plate)
[35] Actuator spring range
[36] No if mounted on valve
[37] No if mounted on valve
[38]
[39]
[40]

[26] Year of production
[27] Serial number
[28] SD or MD or ...
[29] 9- 11- 13- 15- 18- 24- 18L- 24L- 335- 505- 505T+DIR/ REV
[30] Maximum design pressure
[31] Nominal supply pressure (Set AFR)
[32] Maximum temperature ALLOWED in operating environment
[33] Minimum temperature ALLOWED in operating environment
[34] Actuator nominal stroke
[35] Actuator spring range
[36] MARKING
[37] ADDITIONAL MARKING
[38]
[39]
[40]

Data plate DWG 80NP0300 can be obtained from label plate DWG UN7049 by adding missing fields [27] [34] [36] [37]

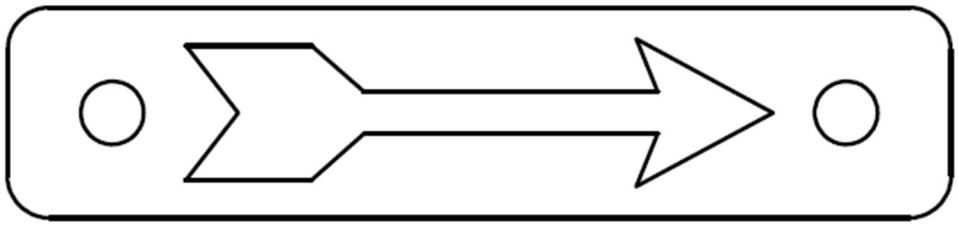
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[1] Model (see TEC800)
[2] Serial number
[3] Year of production
[4] Year of production
[5] ADDITIONAL MARKING
[6] Rated Flow Coefficient
[7] Water connection Nominal Diameter
[8] Water connection Type and Rating
[9] Water connection material
[10] Minimum Design Temperature
[11] Steam connection Nominal Diameter
[12] Steam connection Type and Rating
[13] Steam connection material
[14]
[15]

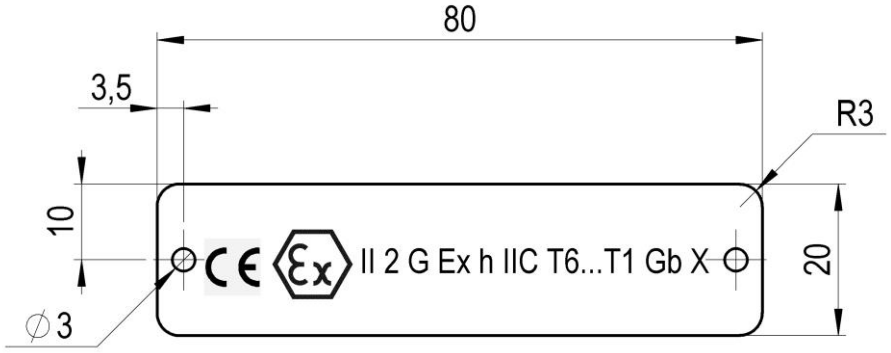
***Applies to:***
Not actuated steam desuperheaters

**FLOW DIRECTION ARROW**
*To be installed on all valves, desuperheaters and check valves*



***20AA01401-B*** ***L = 45 mm*** ***H = 10 mm***

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**SPESSORE / THICKNESS = 0.5mm**
**MATERIALE / MATERIAL = AISI 316**
**ALTEZZA CARATTERI DI STAMPA 3,5mm / *HEIGHT OF PRINTED TEXT* 3,5mm**

| Rev *Iss* | Data *Date* | Descrizione *Description* | Redatto *Edited* | Controllato *Checked* | Approvato *Approved* |
|---|---|---|---|---|---|
| 2 | 21/04/2021 | Revisione / Revision | Fabbricanti | Silvestri | Consonni |
| 1 | 04/03/2015 | Revisione / Revision | Fabbricanti | Silvestri | Consonni |
| 0 | 29/08/2012 | Emissione / First issue | Fabbricanti | Silvestri | Consonni |