

JOINT BOX EWMJ

Optical Joint Box (2 or 3-way) with capacity up to 96 optical fibres splicing



rev: 00	30/05/03
01	01/10/03
02	12/01/04
03	20/09/04

Introduction

Features and benefits

EWMJ joint boxes are specially designed to provide the maximum versatility for OPGW cable splicing, which allows their usage in OPGW and other optical cable systems.

Design

The joint box is made of aluminium alloy. A pre-moulded neoprene anti-aging gasket, perfectly inserted in the groove of the cover, provides an excellent sealing against dust and water-jets.

An assembling plate prepared with fixing devices for the parts of the cable and for the splice trays is placed inside the box.

It is supplied a kit that contains all the material required to carry out the joint: splice protectors, tie-wraps, marking rings, clips, silicone, and moisture absorber.

For sealing the entries of the OPGW cables compression glands are used. Circular cable ports with a heat shrinkable sleeve are used for the cables with plastic sheath.

A fastening structure is used for anchoring the joint box to the pylon or pole. The structure is made of galvanized steel, providing optimal protection against corrosion.

JOINT BOX EWMJ

Optical Joint Box (2 or 3-way) with capacity up to 96 optical fibres splicing

Configuration

- **EWMJ/A:** For splicing two OPGW cables.
- **EWMJ/AT:** For splicing two OPGW cables. Third entry with cap.
- **EWMJ/B:** For splicing one OPGW and one plastic sheath cable.
- **EWMJ/BT:** For splicing one OPGW and one plastic sheath cable. Third entry with cap.
- **EWMJ/C:** For splicing two OPGW cables and one plastic sheath cable.
- **EWMJ/D:** For splicing three OPGW cables
- **EWMJ/H:** For splicing two plastic sheath cables.
- **EWMJ/HT:** For splicing two plastic sheath cables. Third entry with cap.
- **EWMJ/I:** For splicing one OPGW cable and two plastic sheath cables.

General characteristics:

Material:

- Joint box: aluminium alloy;
- Fastening structure: Aluminium and galvanised steel;
- Screws: stainless steel

Dimensions: 319X210X110 mm

Protection degree (IEC 529): IP67

Cables accepted: OPGW with aluminium tube (single or multitube), OPGW steel tube, cables with plastic sheath.

Capacity:

Number of cable entries: 3

Number of splice trays: 6

Number of splices per tray: 24

Options:

Fastening structure for anchoring in circular steel or concrete pylon.

Solar protector made of aluminium.


CODES FOR STANDARD OPTICAL JOINT BOX EWMJ – MULTI LOOSE TUBE

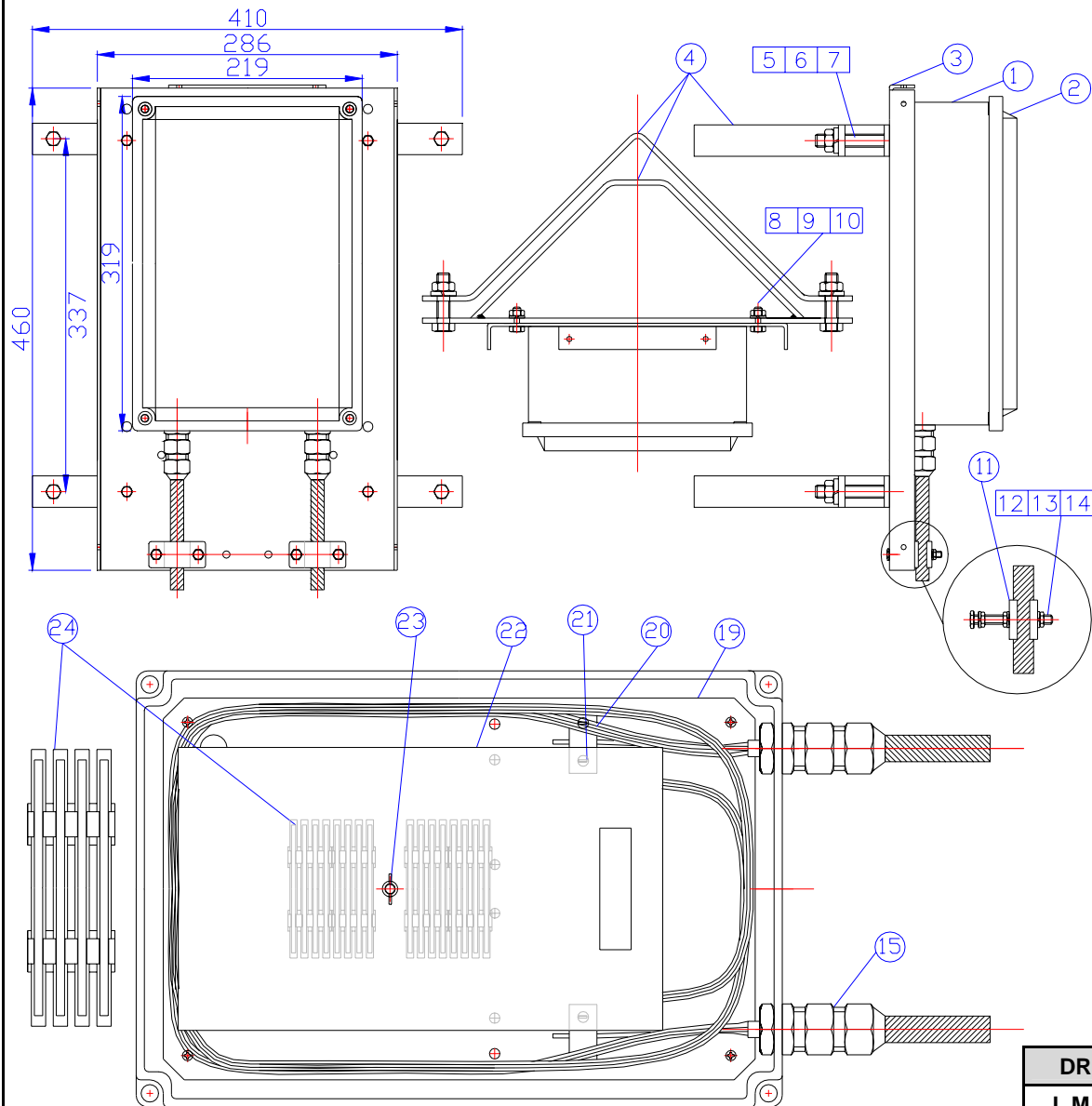
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10.0-16.0	6.0-8.0	28030X10	28030X20	28030X30	28030X40	28030X60	28030X70	28030X80	28030X90
10.0-16.0	7.0-10.0	28030X11	28030X21	28030X31	28030X41	28030X61	28030X71	28030X81	28030X91
15.0-19.0	9.0-12.0	28030X12	28030X22	28030X32	28030X42	28030X62	28030X72	28030X82	28030X92
15.0-19.0	12.0-14.0	28030X13	28030X23	28030X33	28030X43	28030X63	28030X73	28030X83	28030X93
19.0-25.0	14.0-16.0	28030X14	28030X24	28030X34	28030X44	28030X64	28030X74	28030X84	28030X94
19.0-25.0	15.0-18.0	28030X15	28030X25	28030X35	28030X45	28030X65	28030X75	28030X85	28030X95

TYPE OF EWMJ	CODE X	QTY ELEMENTS #22 / #24 (*)							
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A	1	1 / 1	1 / 2	2 / 3	2 / 4	3 / 5	3 / 6	4 / 7	4 / 8
AT	2	1 / 1	1 / 2	2 / 3	2 / 4	3 / 5	3 / 6	4 / 7	4 / 8
B	3	1 / 1	1 / 2	2 / 3	2 / 4	3 / 5	3 / 6	4 / 7	4 / 8
BT	4	1 / 1	1 / 2	2 / 3	2 / 4	3 / 5	3 / 6	4 / 7	4 / 8
C	5	1 / 2	2 / 3	3 / 5	4 / 6	5 / 8	5 / 9	6 / 11	6 / 12
D	6	1 / 2	2 / 3	3 / 5	4 / 6	5 / 8	5 / 9	6 / 11	6 / 12
I	8	1 / 2	2 / 3	3 / 5	4 / 6	5 / 8	5 / 9	6 / 11	6 / 12

(*) Quantity of elements:

- #22 .- Number of Splice organizers
- #24.- Number of Kits with 14 splice protectors

DRAWN	CHECKED	REV	2	
J. MARTIN	J. C. RUIZ	SCALE	~	
30/05/03	20/09/04	REF		
Optical Joint Box EWMJ CODES				REPLACES TO: 28.030.XYY Sheet 1/1



REV	DATE	DESCRIPTION			
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26					
25					
24	Pack of 14 splice protectors	-			
23	Screw and nut	1	Stainless steel	M5	
22	Organizer for 24 splices	-	Aluminium		
21	Screw	4	Stainless steel		
20	Central element fixing plate	2	Aluminium		
19	Fixing plate	1	Aluminium		
18	Plug	0	Aluminium		
17	Self-shrinkable tube	0	Polyolefin		
16	Stern	0	Aluminium		
15	Press entrance	2	Aluminium		
14	Nut	12	Stainless steel	M6	
13	Washer grower	8	Stainless steel	M6	
12	Screw	4	Stainless steel	M6x50	
11	Single bridge	4	Aluminium		
10	Nut	4	Stainless steel	M8	
9	Washer grower	4	Stainless steel	M8	
8	Screw	4	Stainless steel	M8x35	
7	Nut	4	Stainless steel	M10	
6	Washer grower	4	Stainless steel	M10	
5	Screw	4	Stainless steel	M10x60	
4	Collar tower support EWMJ	2	Galv. Steel	┘ 210	
3	Joint box support EWMJ	1	Aluminium		
2	Joint box cover	1	Alum. Inject.		
1	Joint box	1	Alum. Inject.	EWMJ	
POS	DENOMINATION	QTY	MATERIAL	REF	

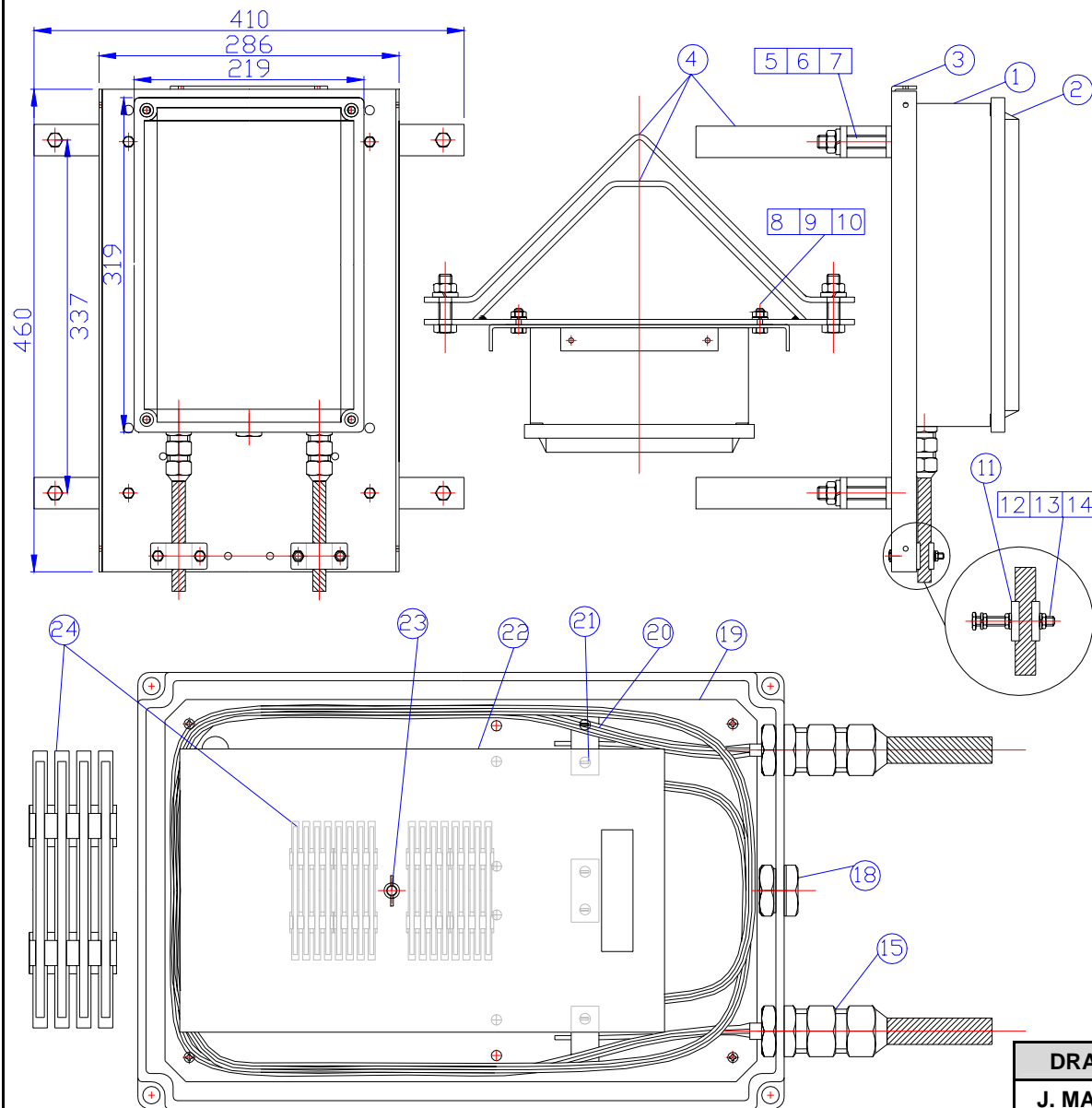
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J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	



**Optical Joint Box EWMJ/A
OPGW-OPGW**

REPLACES TO:

28.030.1XX
Sheet 1/1

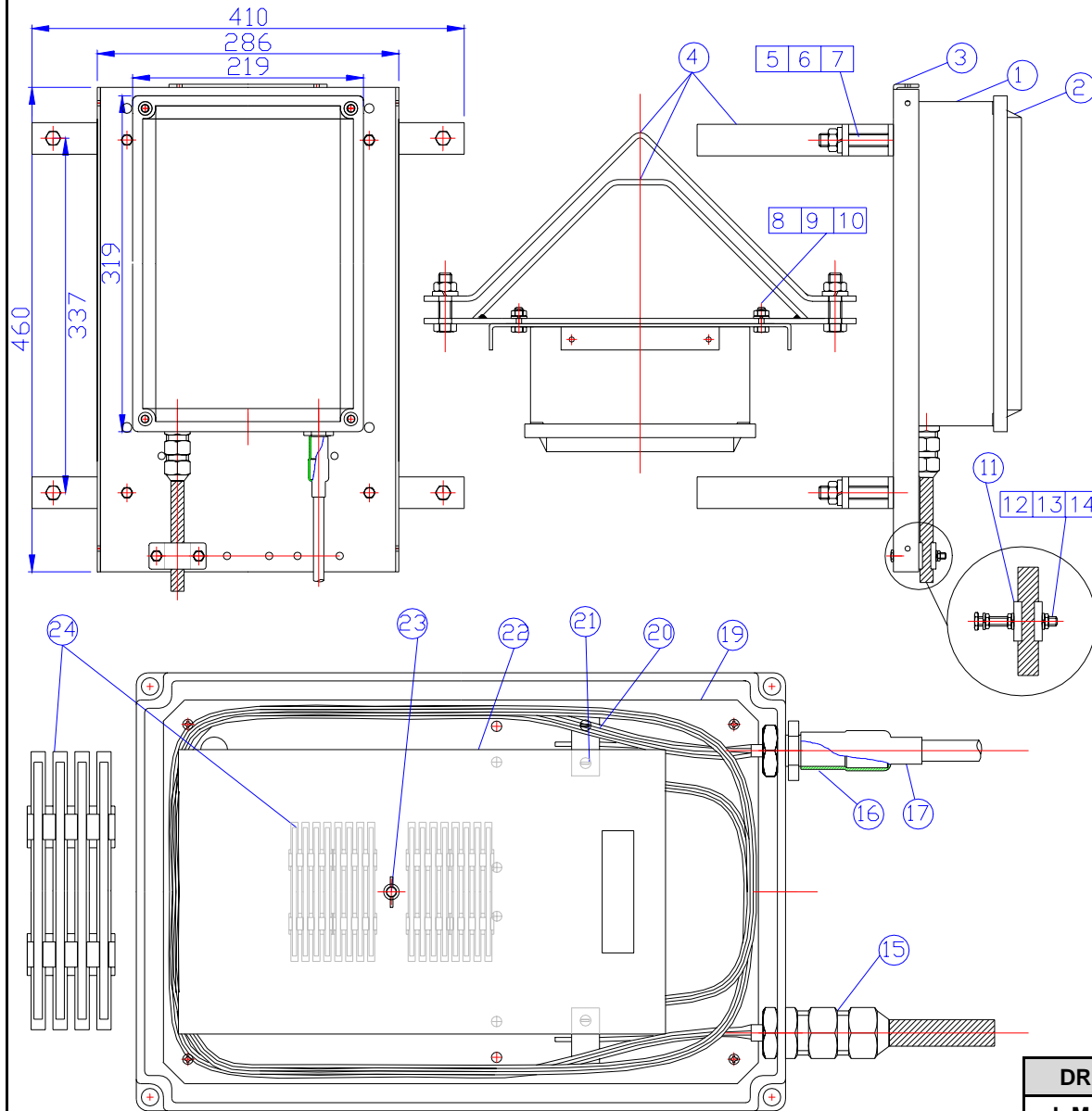


REV	DATE	DESCRIPTION		
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20		
27				
26				
25				
24	Pack of 14 splice protectors	-		
23	Screw and nut	1	Stainless steel	M5
22	Organizer for 24 splices	-	Aluminium	
21	Screw	6	Stainless steel	
20	Central element fixing plate	3	Aluminium	
19	Fixing plate	1	Aluminium	
18	Plug	1	Aluminium	
17	Self-shrinkable tube	0	Polyolefin	
16	Stern	0	Aluminium	
15	Press entrance	2	Aluminium	
14	Nut	12	Stainless steel	M6
13	Washer grower	8	Stainless steel	M6
12	Screw	4	Stainless steel	M6x50
11	Single bridge	4	Aluminium	
10	Nut	4	Stainless steel	M8
9	Washer grower	4	Stainless steel	M8
8	Screw	4	Stainless steel	M8x35
7	Nut	4	Stainless steel	M10
6	Washer grower	4	Stainless steel	M10
5	Screw	4	Stainless steel	M10x60
4	Collar tower support EWMJ	2	Galv. Steel	┘ 210
3	Joint box support EWMJ	1	Aluminium	
2	Joint box cover	1	Alum. Inject.	
1	Joint box	1	Alum. Inject.	EWMJ
POS	DENOMINATION	QTY	MATERIAL	REF

DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	

**Optical Joint Box EWMJ/AT
OPGW-PLUG-OPGW**

REPLACES TO:
28.030.2XX
Sheet 1/1



REV	DATE	DESCRIPTION			
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26					
25					
24		Pack of 14 splice protectors	-		
23		Screw and nut	1	Stainless steel	M5
22		Organizer for 24 splices	-	Aluminium	
21		Screw	4	Stainless steel	
20		Central element fixing plate	2	Aluminium	
19		Fixing plate	1	Aluminium	
18		Plug	0	Aluminium	
17		Self-shrinkable tube	1	Polyolefin	
16		Stern	1	Aluminium	
15		Press entrance	1	Aluminium	
14		Nut	6	Stainless steel	M6
13		Washer grower	4	Stainless steel	M6
12		Screw	2	Stainless steel	M6x50
11		Single bridge	2	Aluminium	
10		Nut	4	Stainless steel	M8
9		Washer grower	4	Stainless steel	M8
8		Screw	4	Stainless steel	M8x35
7		Nut	4	Stainless steel	M10
6		Washer grower	4	Stainless steel	M10
5		Screw	4	Stainless steel	M10x60
4		Collar tower support EWMJ	2	Galv. Steel	┘ 210
3		Joint box support EWMJ	1	Aluminium	
2		Joint box cover	1	Alum. Inject.	
1		Joint box	1	Alum. Inject.	EWMJ
POS	DENOMINATION		QTY	MATERIAL	REF

DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	

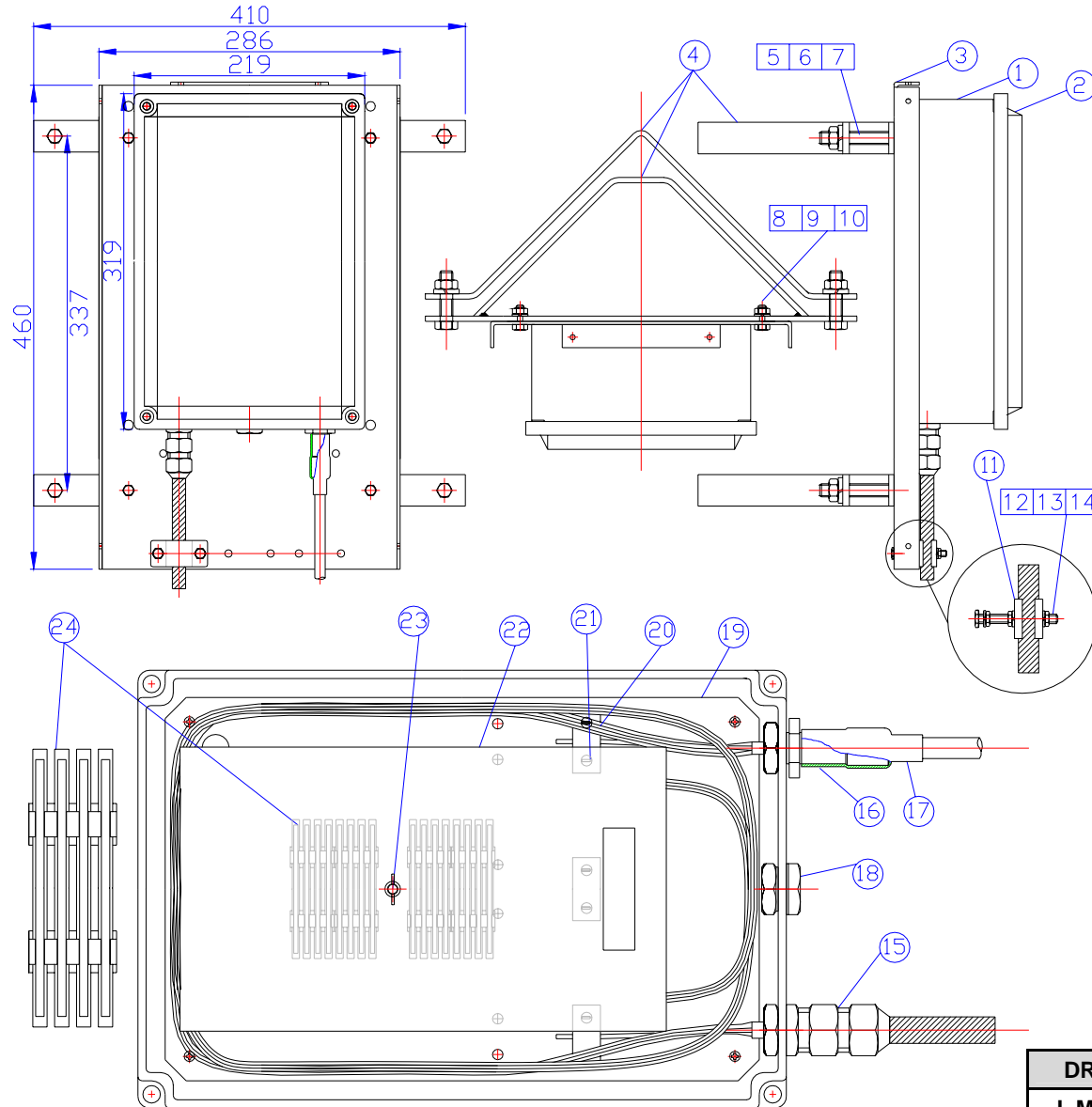


**Optical Joint Box EWMJ/B
OPGW-DUCT**

REPLACES TO:

28.030.3XX

Sheet 1/1



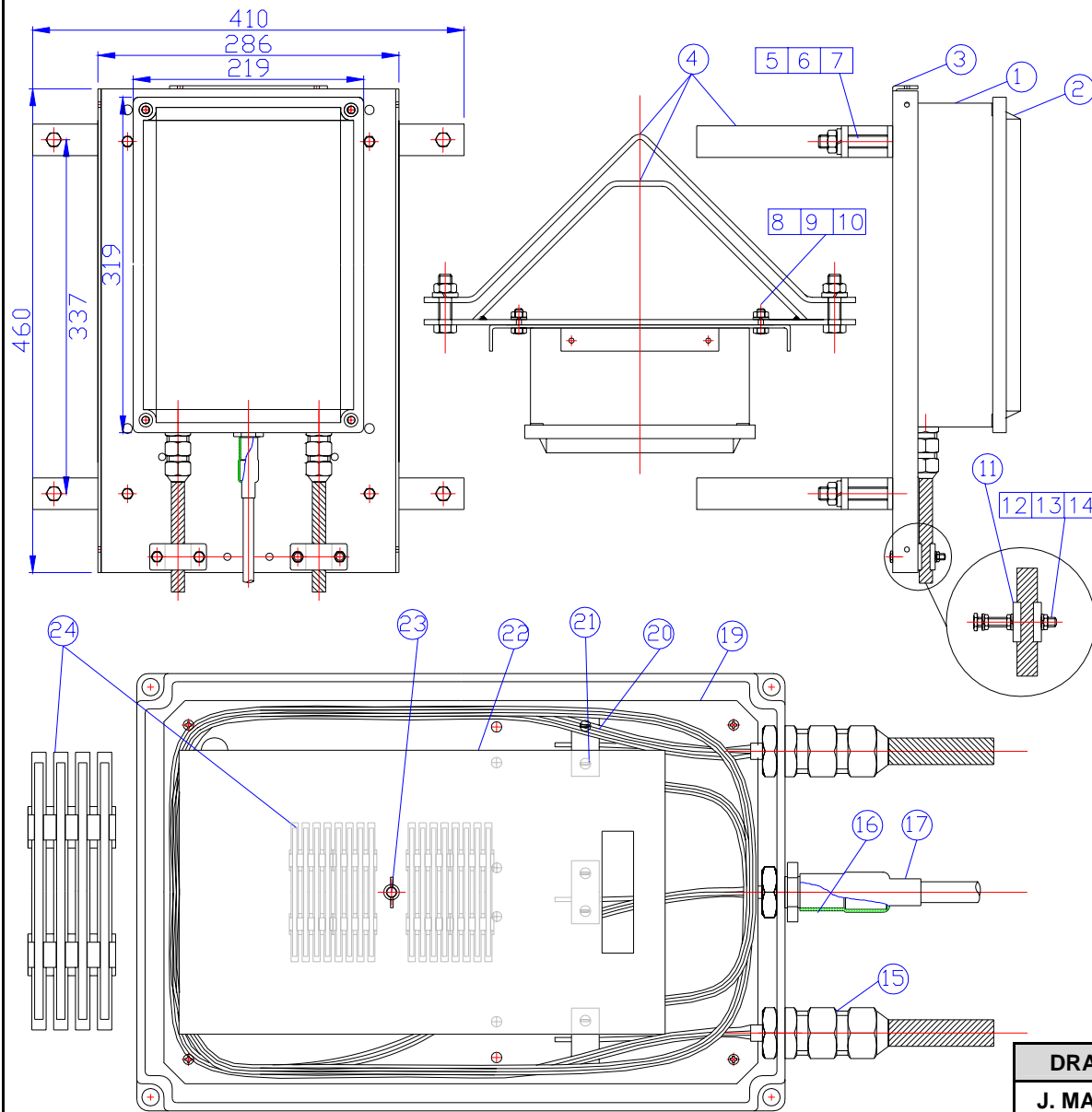
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2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26					
25					
24	Pack of 14 splice protectors	-			
23	Screw and nut	1	Stainless steel	M5	
22	Organizer for 24 splices	-	Aluminium		
21	Screw	6	Stainless steel		
20	Central element fixing plate	3	Aluminium		
19	Fixing plate	1	Aluminium		
18	Plug	1	Aluminium		
17	Self-shrinkable tube	1	Polyolefin		
16	Stern	1	Aluminium		
15	Press entrance	1	Aluminium		
14	Nut	6	Stainless steel	M6	
13	Washer grower	4	Stainless steel	M6	
12	Screw	2	Stainless steel	M6x50	
11	Single bridge	2	Aluminium		
10	Nut	4	Stainless steel	M8	
9	Washer grower	4	Stainless steel	M8	
8	Screw	4	Stainless steel	M8x35	
7	Nut	4	Stainless steel	M10	
6	Washer grower	4	Stainless steel	M10	
5	Screw	4	Stainless steel	M10x60	
4	Collar tower support EWMJ	2	Galv. Steel	┘ 210	
3	Joint box support EWMJ	1	Aluminium		
2	Joint box cover	1	Alum. Inject.		
1	Joint box	1	Alum. Inject.	EWMJ	
POS	DENOMINATION	QTY	MATERIAL	REF	

DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	



**Optical Joint Box EWMJ/BT
OPGW-PLUG-DUCT**

REPLACES TO:
28.030.4XX
Sheet 1/1



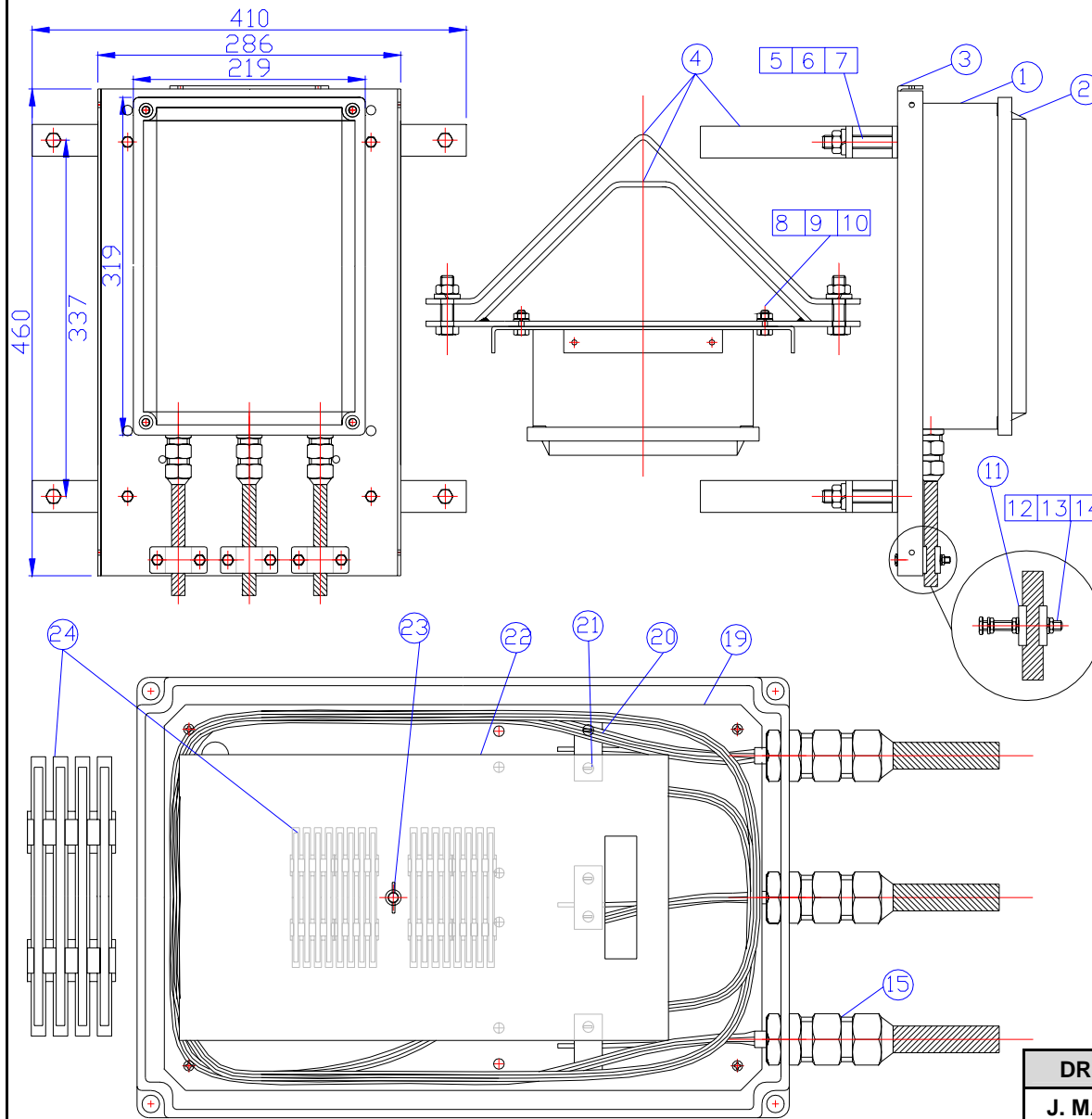
REV	DATE	DESCRIPTION			
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26					
25					
24	Pack of 14 splice protectors	-			
23	Screw and nut	1	Stainless steel	M5	
22	Organizer for 24 splices	-	Aluminium		
21	Screw	6	Stainless steel		
20	Central element fixing plate	3	Aluminium		
19	Fixing plate	1	Aluminium		
18	Plug	0	Aluminium		
17	Self-shrinkable tube	1	Polyolefin		
16	Stern	1	Aluminium		
15	Press entrance	2	Aluminium		
14	Nut	12	Stainless steel	M6	
13	Washer grower	8	Stainless steel	M6	
12	Screw	4	Stainless steel	M6x50	
11	Single bridge	4	Aluminium		
10	Nut	4	Stainless steel	M8	
9	Washer grower	4	Stainless steel	M8	
8	Screw	4	Stainless steel	M8x35	
7	Nut	4	Stainless steel	M10	
6	Washer grower	4	Stainless steel	M10	
5	Screw	4	Stainless steel	M10x60	
4	Collar tower support EWMJ	2	Galv. Steel	┘ 210	
3	Joint box support EWMJ	1	Aluminium		
2	Joint box cover	1	Alum. Inject.		
1	Joint box	1	Alum. Inject.	EWMJ	
POS	DENOMINATION	QTY	MATERIAL	REF	

DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	



**Optical Joint Box EWMJ/C
OPGW-DUCT-OPGW**

REPLACES TO:
28.030.5XX
Sheet 1/1



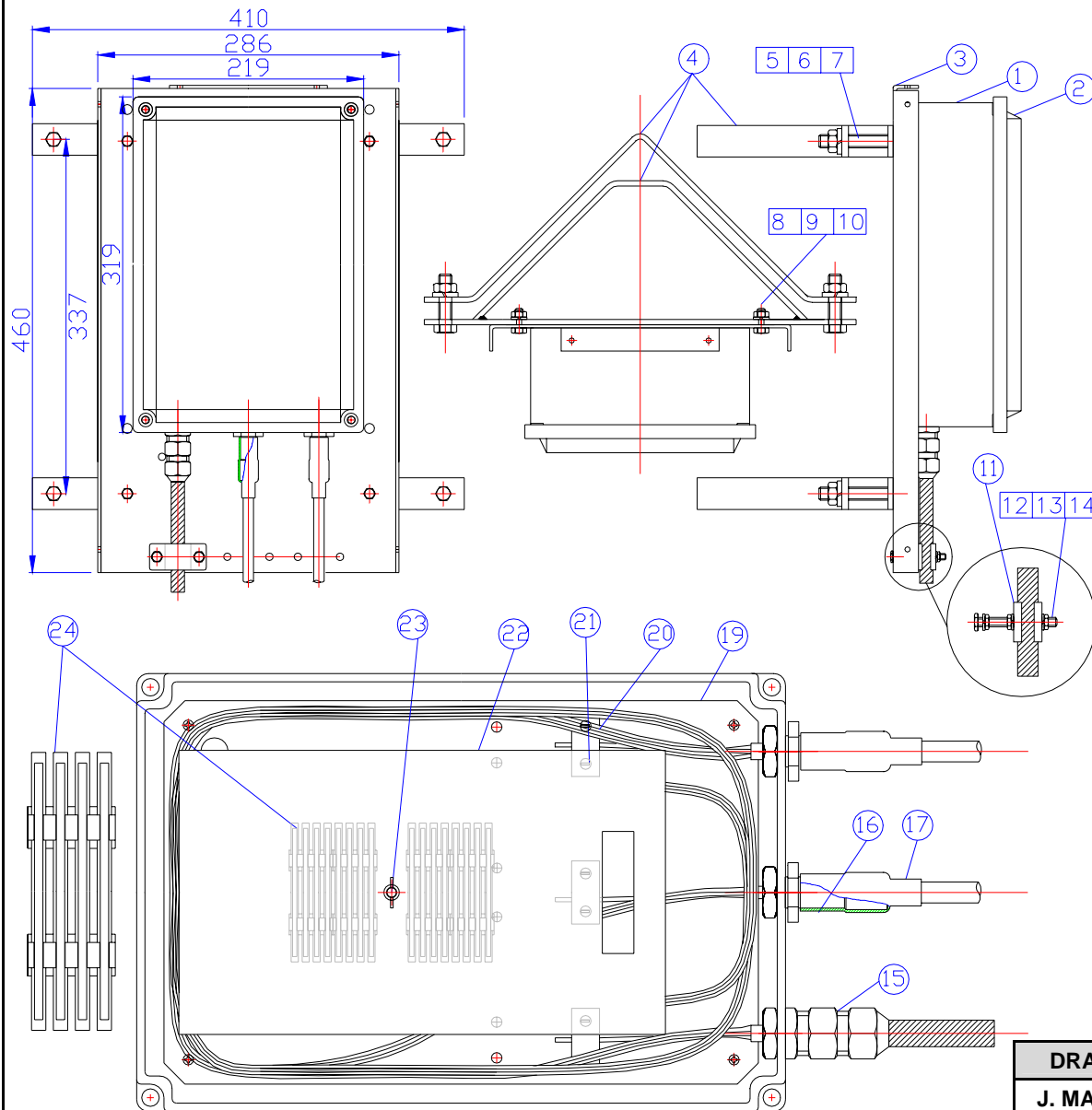
REV	DATE	DESCRIPTION			
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26					
25					
24	Pack of 14 splice protectors	-			
23	Screw and nut	1	Stainless steel	M5	
22	Organizer for 24 splices	-	Aluminium		
21	Screw	6	Stainless steel		
20	Central element fixing plate	3	Aluminium		
19	Fixing plate	1	Aluminium		
18	Plug	0	Aluminium		
17	Self-shrinkable tube	0	Polyolefin		
16	Stern	0	Aluminium		
15	Press entrance	3	Aluminium		
14	Nut	18	Stainless steel	M6	
13	Washer grower	12	Stainless steel	M6	
12	Screw	6	Stainless steel	M6x50	
11	Single bridge	6	Aluminium		
10	Nut	4	Stainless steel	M8	
9	Washer grower	4	Stainless steel	M8	
8	Screw	4	Stainless steel	M8x35	
7	Nut	4	Stainless steel	M10	
6	Washer grower	4	Stainless steel	M10	
5	Screw	4	Stainless steel	M10x60	
4	Collar tower support EWMJ	2	Galv. Steel	┘ 210	
3	Joint box support EWMJ	1	Aluminium		
2	Joint box cover	1	Alum. Inject.		
1	Joint box	1	Alum. Inject.	EWMJ	
POS	DENOMINATION	QTY	MATERIAL	REF	

DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	



**Optical Joint Box EWMJ/D
OPGW-OPGW-OPGW**

REPLACES TO:
28.030.6XX
Sheet 1/1



REV	DATE	DESCRIPTION			
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27					
26					
25					
24	Pack of 14 splice protectors	-			
23	Screw and nut	1	Stainless steel	M5	
22	Organizer for 24 splices	-	Aluminium		
21	Screw	6	Stainless steel		
20	Central element fixing plate	3	Aluminium		
19	Fixing plate	1	Aluminium		
18	Plug	0	Aluminium		
17	Self-shrinkable tube	2	Polyolefin		
16	Stern	2	Aluminium		
15	Press entrance	1	Aluminium		
14	Nut	6	Stainless steel	M6	
13	Washer grower	4	Stainless steel	M6	
12	Screw	2	Stainless steel	M6x50	
11	Single bridge	2	Aluminium		
10	Nut	4	Stainless steel	M8	
9	Washer grower	4	Stainless steel	M8	
8	Screw	4	Stainless steel	M8x35	
7	Nut	4	Stainless steel	M10	
6	Washer grower	4	Stainless steel	M10	
5	Screw	4	Stainless steel	M10x60	
4	Collar tower support EWMJ	2	Galv. Steel	┘ 210	
3	Joint box support EWMJ	1	Aluminium		
2	Joint box cover	1	Alum. Inject.		
1	Joint box	1	Alum. Inject.	EWMJ	
POS	DENOMINATION	QTY	MATERIAL	REF	

DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	

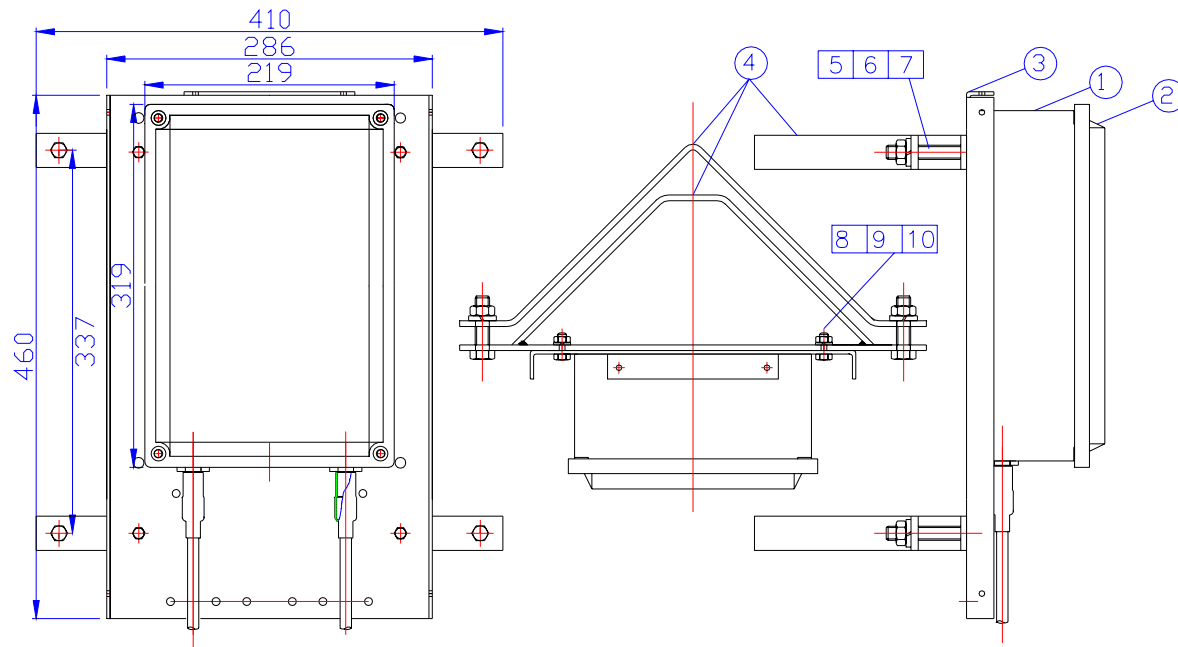


**Optical Joint Box EWMJ/
DUCT-DUCT-OPGW**

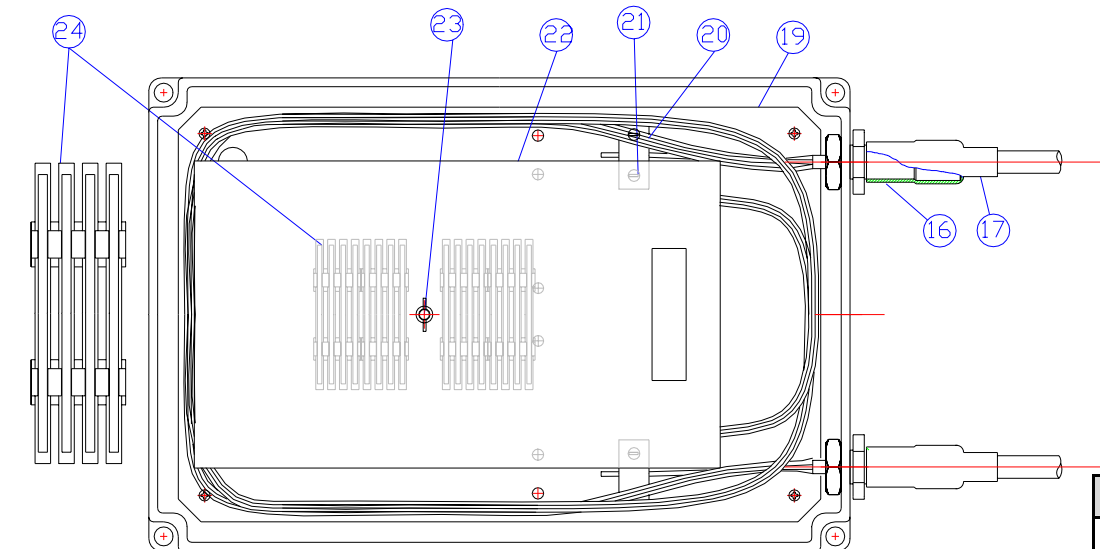
REPLACES TO:

28.030.8XX

Sheet 1/1



CODE	# FO	QTY (*)	
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28030720	24	1	2
28030730	36	2	3
28030740	48	2	4
28030760	60	3	5
28030770	72	4	6
28030780	84	4	7
28030390	96	4	8



REV	DATE	DESCRIPTION			
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
24		Pack of 14 splice protectors	-		
23		Screw and nut	1	Stainless steel	M5
22		Organizer for 24 splices	-	Aluminium	
21		Screw	4	Stainless steel	
20		Central element fixing plate	2	Aluminium	
19		Fixing plate	1	Aluminium	
18		Plug	0	Aluminium	
17		Self-shrinkable tube	2	Polyolefin	
16		Stern	2	Aluminium	
10		Nut	4	Stainless steel	M8
9		Washer grower	4	Stainless steel	M8
8		Screw	4	Stainless steel	M8x35
7		Nut	4	Stainless steel	M10
6		Washer grower	4	Stainless steel	M10
5		Screw	4	Stainless steel	M10x60
4		Collar tower support EWMJ	2	Galv. Steel	└ 210
3		Joint box support EWMJ	1	Aluminium	
2		Joint box cover	1	Alum. Inject.	
1		Joint box	1	Alum. Inject.	EWMJ
POS	DENOMINATION		QTY	MATERIAL	REF

DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	



Optical Joint Box EWMJ/H DUCT-DUCT

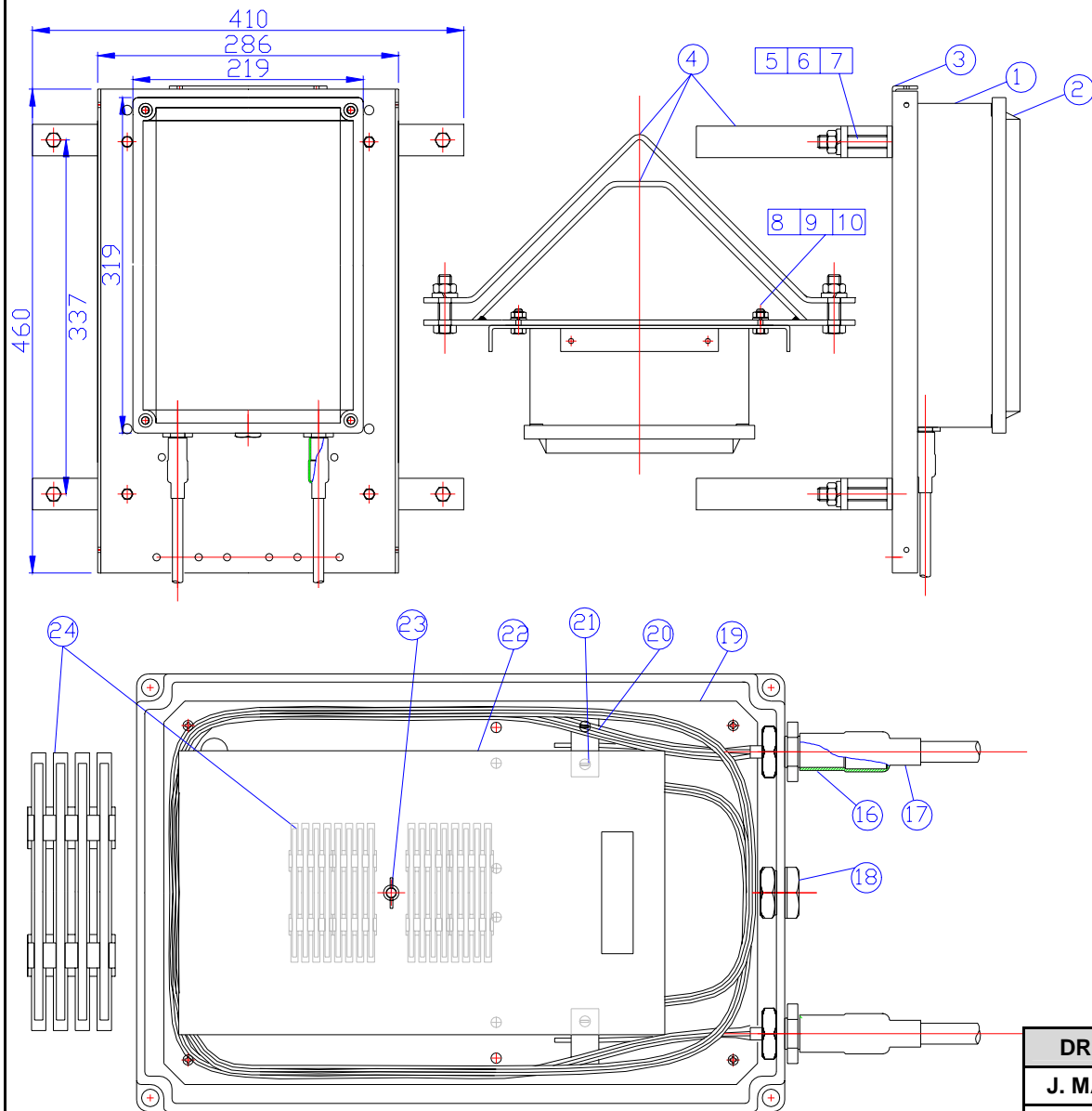
REPLACES TO:

28.030.7X0

Sheet 1/1

(*) Quantity of elements:

- #22 .- Number of Splice organizers
- #24.- Number of Kits with 14 splice protectors



CODE	# FO	QTY (*)	
		22	24
28030715	12	1	1
28030725	24	1	2
28030735	36	2	3
28030745	48	2	4
28030765	60	3	5
28030775	72	4	6
28030785	84	4	7
28030395	96	4	8

REV	DATE	DESCRIPTION			
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
24		Pack of 14 splice protectors	-		
23		Screw and nut	1	Stainless steel M5	
22		Organizer for 24 splices	-	Aluminium	
21		Screw	4	Stainless steel	
20		Central element fixing plate	2	Aluminium	
19		Fixing plate	1	Aluminium	
18		Plug	1	Aluminium	
17		Self-shrinkable tube	2	Polyolefin	
16		Stern	2	Aluminium	
10		Nut	4	Stainless steel M8	
9		Washer grower	4	Stainless steel M8	
8		Screw	4	Stainless steel M8x35	
7		Nut	4	Stainless steel M10	
6		Washer grower	4	Stainless steel M10	
5		Screw	4	Stainless steel M10x60	
4		Collar tower support EWMJ	2	Galv. Steel 210	
3		Joint box support EWMJ	1	Aluminium	
2		Joint box cover	1	Alum. Inject.	
1		Joint box	1	Alum. Inject. EWMJ	
POS	DENOMINATION		QTY	MATERIAL	REF

DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	



**Optical Joint Box EWMJ/HT
DUCT-PLUG-DUCT**

REPLACES TO:
28.030.7X5
Sheet 1/1

(*) Quantity of elements:

- #22 .- Number of Splice organizers
- #24.- Number of Kits with 14 splice protectors


CODES FOR STANDARD OPTICAL JOINT BOX EWMJ – SINGLE LOOSE TUBE

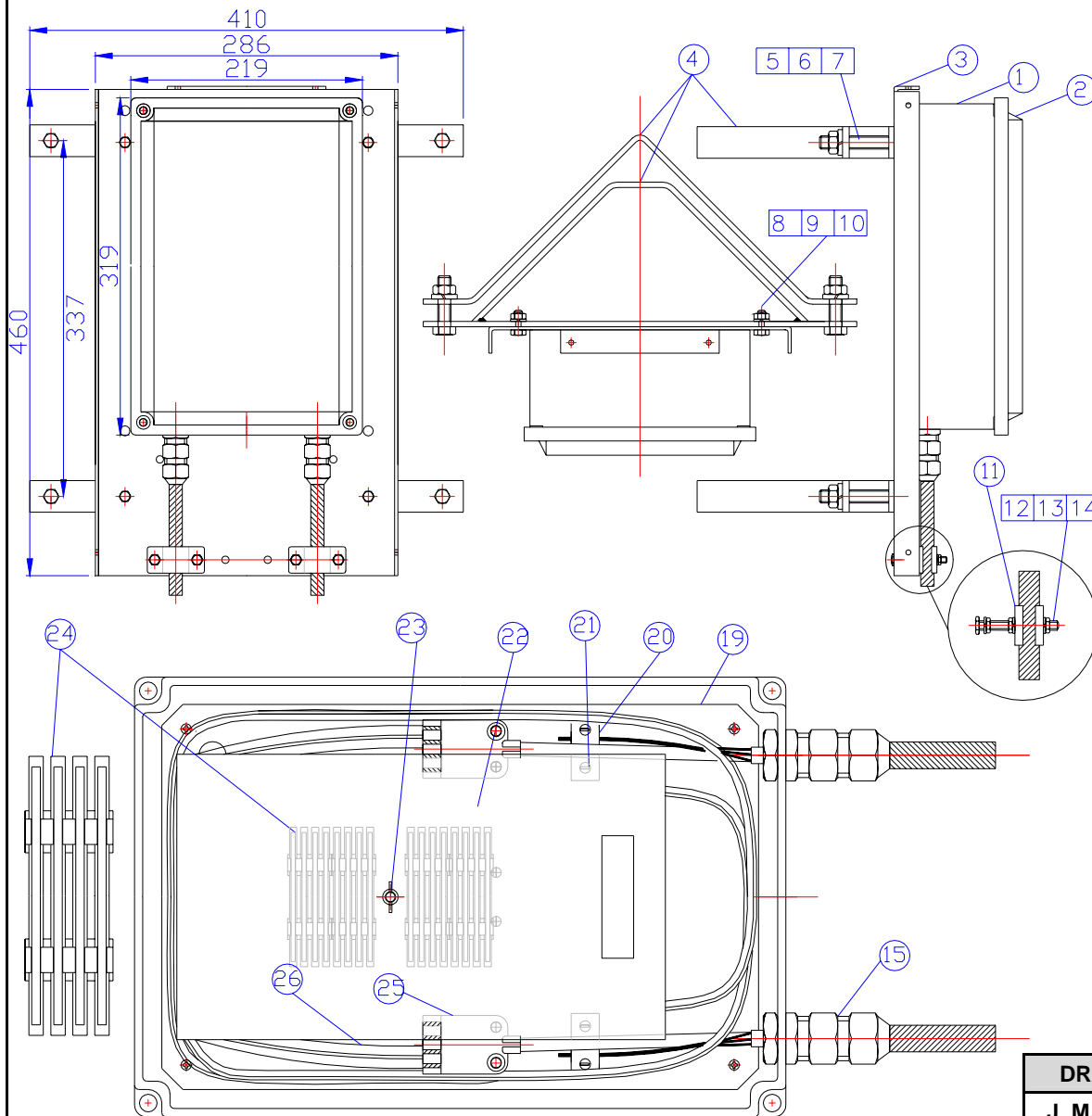
OPGW Ø [mm]	AL tube Ø [mm]	CODE YY			
		#FO = 12	#FO = 24	#FO = 36	#FO = 48
7.0-10.0	3.0-5.0	28031X10	28031X20	28031X30	28031X40
7.0-10.0	5.0-7.0	28031X11	28031X21	28031X31	28031X41
10.0-16.0	6.0-8.0	28031X12	28031X22	28031X32	28031X42
10.0-16.0	7.0-10.0	28031X13	28031X23	28031X33	28031X43
15.0-19.0	9.0-12.0	28031X14	28031X24	28031X34	28031X44
15.0-19.0	12.0-14.0	28031X15	28031X25	28031X35	28031X45

TYPE OF EWMJ	CODE X	QTY ELEMENTS #22 / #24 / #25 / #26 (*)			
		#FO = 12	#FO = 24	#FO = 36	#FO = 48
A/S	1	1/1/0/0	1/2/0/0	2/3/2/4	2/4/2/4
AT/S	2	1/1/0/0	1/2/0/0	2/3/2/4	2/4/2/4
B/S	3	1/1/0/0	1/2/0/0	2/3/1/2	2/4/1/2
BT/S	4	1/1/0/0	1/2/0/0	2/3/1/2	2/4/1/2
C/S	5	1/2/0/0	2/3/2/4	3/5/2/6	4/6/2/8
D/S	6	1/2/0/0	2/3/3/6	3/5/3/9	4/6/3/12
I/S	8	1/2/0/0	2/3/1/2	3/5/1/3	4/6/1/4

(*) Quantity of elements:

- #22 .- Number of Splice organizers
- #24.- Number of Kits with 14 splice protectors
- #25 .- Number of Fiber distributors
- #26 .- Number of Transport tube 0.75m long

DRAWN	CHECKED	REV	2	
J. MARTIN	J.C.RUIZ	SCALE	~	
30/05/03	20/09/04	REF		
Optical Joint Box EWMJ CODES				REPLACES TO: 28.031.XYY Sheet 1/1



REV	DATE	DESCRIPTION			
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26		Transport tube 0.75m long	-	Plastic	
25		Fiber distributor	-	Plastic	
24		Pack of 14 splice protectors	-		
23		Screw and nut	1	Stainless steel	M5
22		Organizer for 24 splices	-	Aluminium	
21		Screw	4	Stainless steel	
20		Central element fixing plate	2	Aluminium	
19		Fixing plate	1	Aluminium	
18		Plug	0	Aluminium	
17		Self-shrinkable tube	0	Polyolefin	
16		Stern	0	Aluminium	
15		Press entrance	2	Aluminium	
14		Nut	12	Stainless steel	M6
13		Washer grower	8	Stainless steel	M6
12		Screw	4	Stainless steel	M6x50
11		Single bridge	4	Aluminium	
10		Nut	4	Stainless steel	M8
9		Washer grower	4	Stainless steel	M8
8		Screw	4	Stainless steel	M8x35
7		Nut	4	Stainless steel	M10
6		Washer grower	4	Stainless steel	M10
5		Screw	4	Stainless steel	M10x60
4		Collar tower support EWMJ	2	Galv. Steel	┘ 210
3		Joint box support EWMJ	1	Aluminium	
2		Joint box cover	1	Alum. Inject.	
1		Joint box	1	Alum. Inject.	EWMJ
POS	DENOMINATION		QTY	MATERIAL	REF

DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	

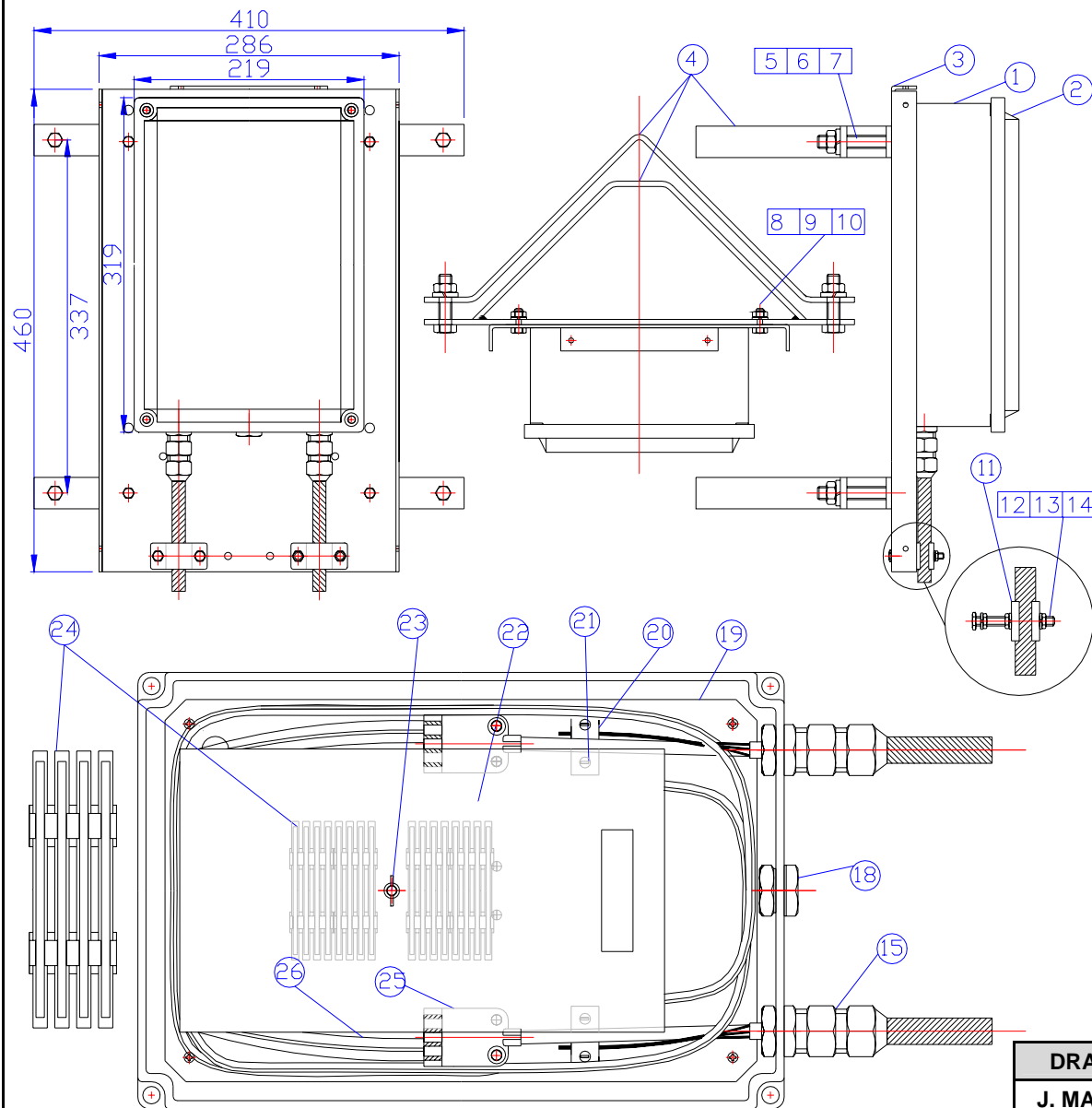


Joint boxes for OPGW with 12 and 24 fiber count will not have elements #25 and #26

Optical Joint Box EWMJ/A/S OPGW-OPGW

REPLACES TO:

28.031.1XX
Sheet 1/1



REV	DATE	DESCRIPTION	QTY	MATERIAL	REF
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26		Transport tube 0.75m long	-	Plastic	
25		Fiber distributor	-	Plastic	
24		Pack of 14 splice protectors	-		
23		Screw and nut	1	Stainless steel	M5
22		Organizer for 24 splices	-	Aluminium	
21		Screw	6	Stainless steel	
20		Central element fixing plate	3	Aluminium	
19		Fixing plate	1	Aluminium	
18		Plug	1	Aluminium	
17		Self-shrinkable tube	0	Polyolefin	
16		Stern	0	Aluminium	
15		Press entrance	2	Aluminium	
14		Nut	12	Stainless steel	M6
13		Washer grower	8	Stainless steel	M6
12		Screw	4	Stainless steel	M6x50
11		Single bridge	4	Aluminium	
10		Nut	4	Stainless steel	M8
9		Washer grower	4	Stainless steel	M8
8		Screw	4	Stainless steel	M8x35
7		Nut	4	Stainless steel	M10
6		Washer grower	4	Stainless steel	M10
5		Screw	4	Stainless steel	M10x60
4		Collar tower support EWMJ	2	Galv. Steel	┘ 210
3		Joint box support EWMJ	1	Aluminium	
2		Joint box cover	1	Alum. Inject.	
1		Joint box	1	Alum. Inject.	EWMJ
POS	DENOMINATION		QTY	MATERIAL	REF

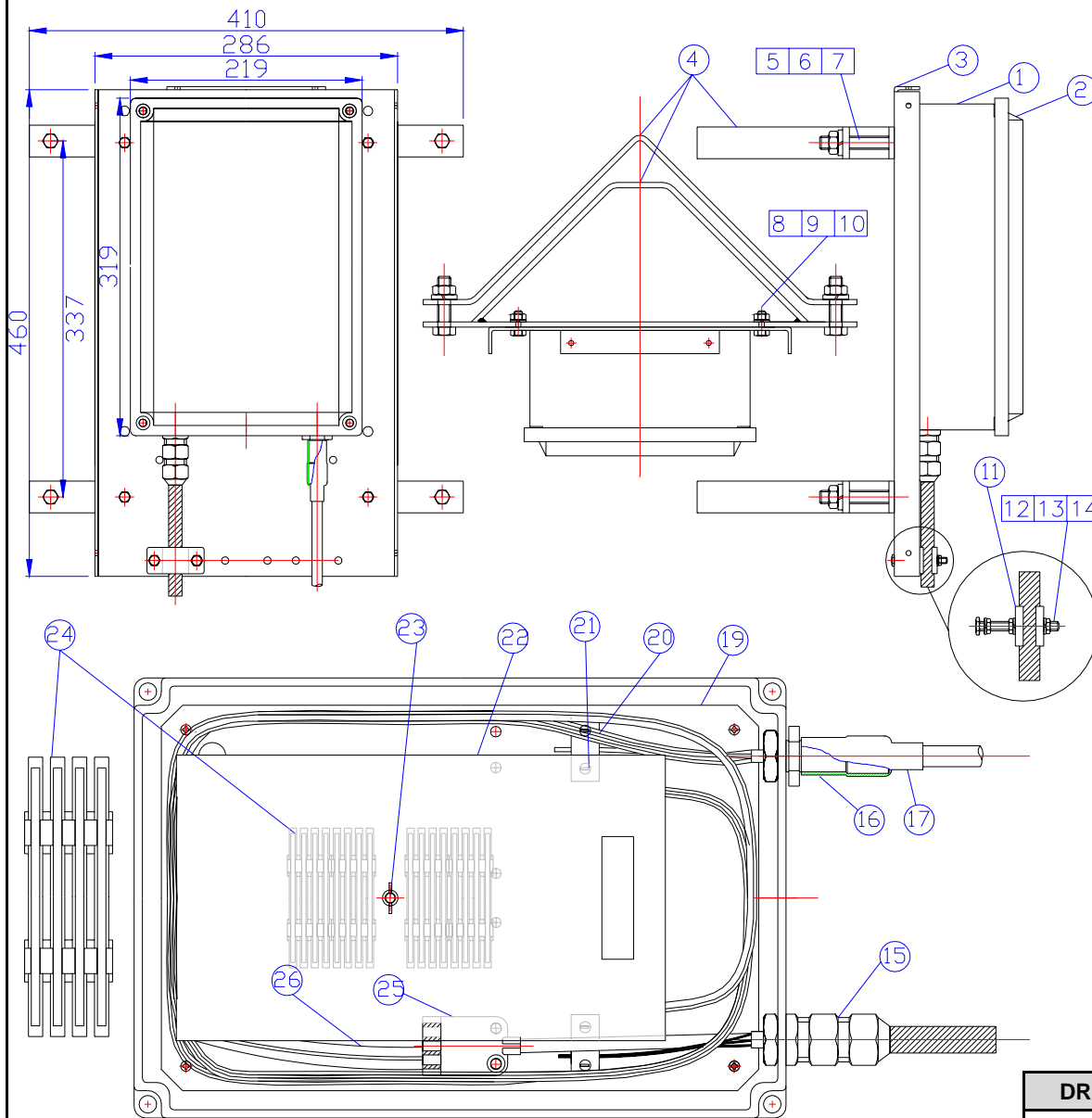
DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	



Joint boxes for OPGW with 12 and 24 fiber count will not have elements #25 and #26

Optical Joint Box EWMJ/AT/S OPGW-PLUG-OPGW

REPLACES TO:
28.031.2XX
Sheet 1/1



REV	DATE	DESCRIPTION			
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26		Transport tube 0.75m long	-	Plastic	
25		Fiber distributor	-	Plastic	
24		Pack of 14 splice protectors	-		
23		Screw and nut	1	Stainless steel	M5
22		Organizer for 24 splices	-	Aluminium	
21		Screw	4	Stainless steel	
20		Central element fixing plate	2	Aluminium	
19		Fixing plate	1	Aluminium	
18		Plug	0	Aluminium	
17		Self-shrinkable tube	1	Polyolefin	
16		Stern	1	Aluminium	
15		Press entrance	1	Aluminium	
14		Nut	6	Stainless steel	M6
13		Washer grower	4	Stainless steel	M6
12		Screw	2	Stainless steel	M6x50
11		Single bridge	2	Aluminium	
10		Nut	4	Stainless steel	M8
9		Washer grower	4	Stainless steel	M8
8		Screw	4	Stainless steel	M8x35
7		Nut	4	Stainless steel	M10
6		Washer grower	4	Stainless steel	M10
5		Screw	4	Stainless steel	M10x60
4		Collar tower support EWMJ	2	Galv. Steel	┘ 210
3		Joint box support EWMJ	1	Aluminium	
2		Joint box cover	1	Alum. Inject.	
1		Joint box	1	Alum. Inject.	EWMJ
POS	DENOMINATION		QTY	MATERIAL	REF

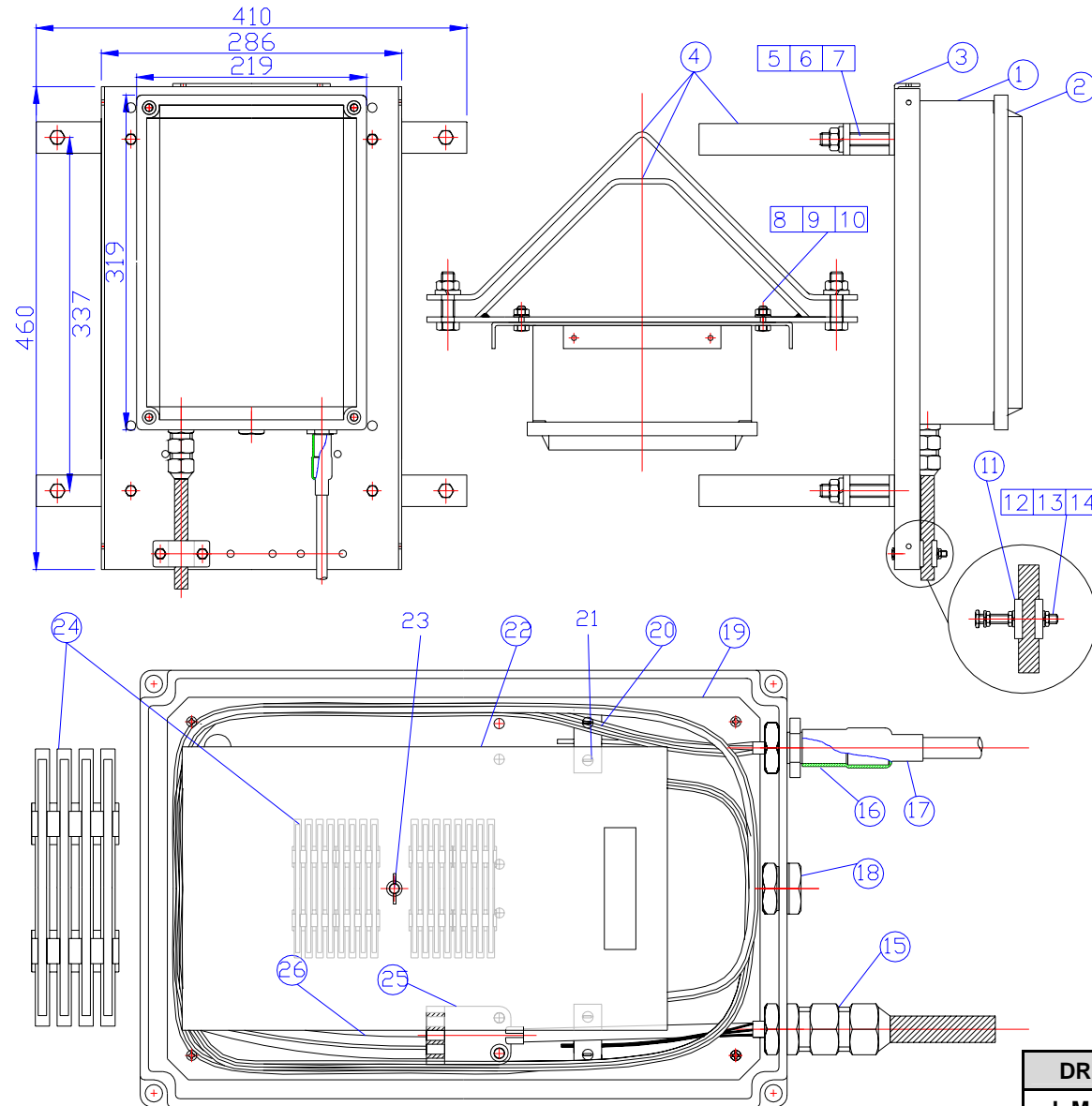
DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	



Joint boxes for OPGW with 12 and 24 fiber count will not have elements #25 and #26

Optical Joint Box EWMJ/B/S OPGW-DUCT

REPLACES TO:
28.031.3XX
Sheet 1/1



REV	DATE	DESCRIPTION			
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26		Transport tube 0.75m long	-	Plastic	
25		Fiber distributor	-	Plastic	
24		Pack of 14 splice protectors	-		
23		Screw and nut	1	Stainless steel	M5
22		Organizer for 24 splices	-	Aluminium	
21		Screw	6	Stainless steel	
20		Central element fixing plate	3	Aluminium	
19		Fixing plate	1	Aluminium	
18		Plug	1	Aluminium	
17		Self-shrinkable tube	1	Polyolefin	
16		Stern	1	Aluminium	
15		Press entrance	1	Aluminium	
14		Nut	6	Stainless steel	M6
13		Washer grower	4	Stainless steel	M6
12		Screw	2	Stainless steel	M6x50
11		Single bridge	2	Aluminium	
10		Nut	4	Stainless steel	M8
9		Washer grower	4	Stainless steel	M8
8		Screw	4	Stainless steel	M8x35
7		Nut	4	Stainless steel	M10
6		Washer grower	4	Stainless steel	M10
5		Screw	4	Stainless steel	M10x60
4		Collar tower support EWMJ	2	Galv. Steel	210
3		Joint box support EWMJ	1	Aluminium	
2		Joint box cover	1	Alum. Inject.	
1		Joint box	1	Alum. Inject.	EWMJ
POS	DENOMINATION		QTY	MATERIAL	REF

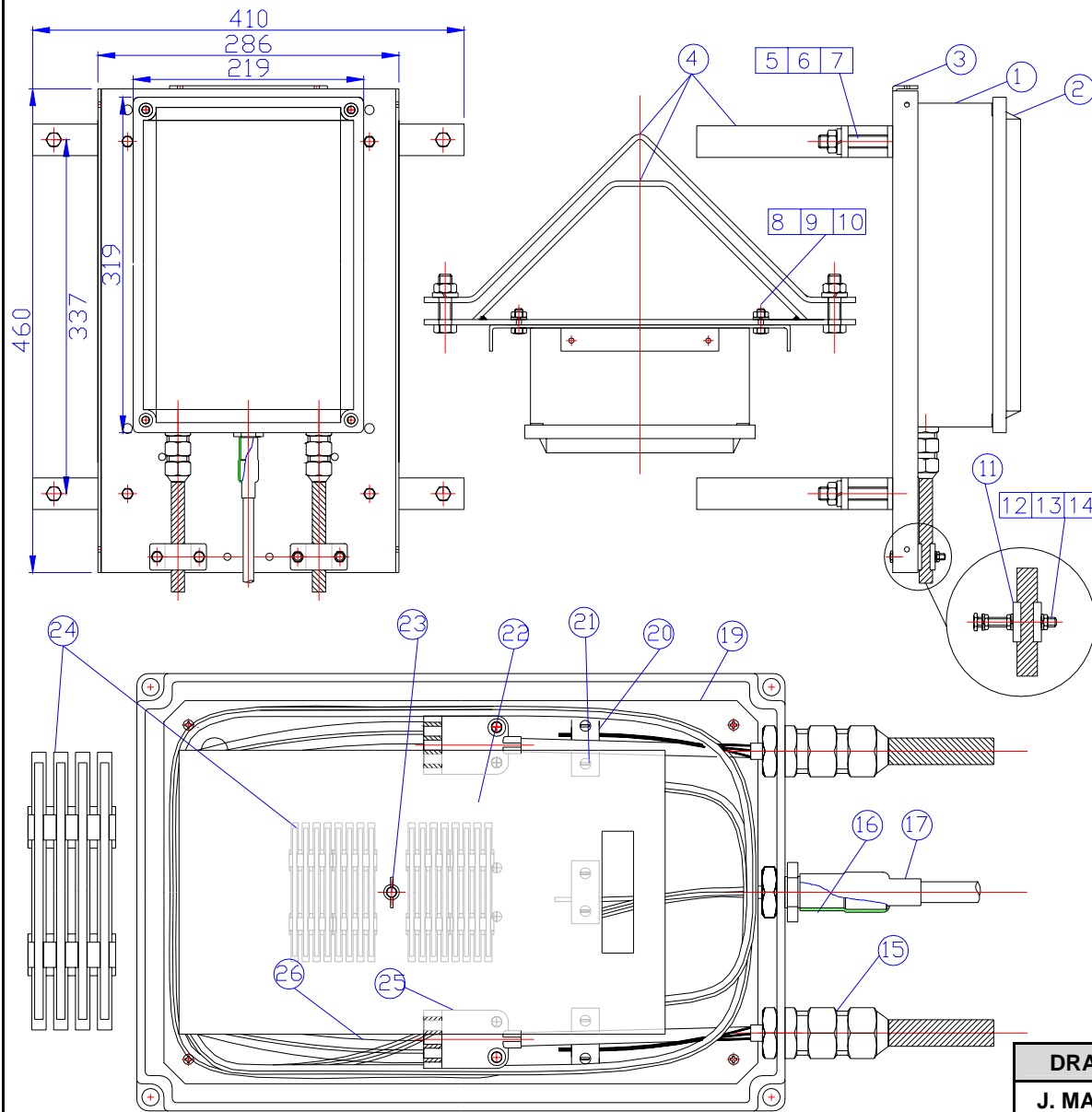
DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	



Joint boxes for OPGW with 12 and 24 fiber count will not have elements #25 and #26

Optical Joint Box EWMJ/BT/S OPGW-PLUG-DUCT

REPLACES TO:
28.031.4XX
Sheet 1/1



REV	DATE	DESCRIPTION	QTY	MATERIAL	REF
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26		Transport tube 0.75m long	-	Plastic	
25		Fiber distributor	-	Plastic	
24		Pack of 14 splice protectors	-		
23		Screw and nut	1	Stainless steel	M5
22		Organizer for 24 splices	-	Aluminium	
21		Screw	6	Stainless steel	
20		Central element fixing plate	3	Aluminium	
19		Fixing plate	1	Aluminium	
18		Plug	0	Aluminium	
17		Self-shrinkable tube	1	Polyolefin	
16		Stern	1	Aluminium	
15		Press entrance	2	Aluminium	
14		Nut	12	Stainless steel	M6
13		Washer grower	8	Stainless steel	M6
12		Screw	4	Stainless steel	M6x50
11		Single bridge	4	Aluminium	
10		Nut	4	Stainless steel	M8
9		Washer grower	4	Stainless steel	M8
8		Screw	4	Stainless steel	M8x35
7		Nut	4	Stainless steel	M10
6		Washer grower	4	Stainless steel	M10
5		Screw	4	Stainless steel	M10x60
4		Collar tower support EWMJ	2	Galv. Steel	210
3		Joint box support EWMJ	1	Aluminium	
2		Joint box cover	1	Alum. Inject.	
1		Joint box	1	Alum. Inject.	EWMJ
POS	DENOMINATION		QTY	MATERIAL	REF

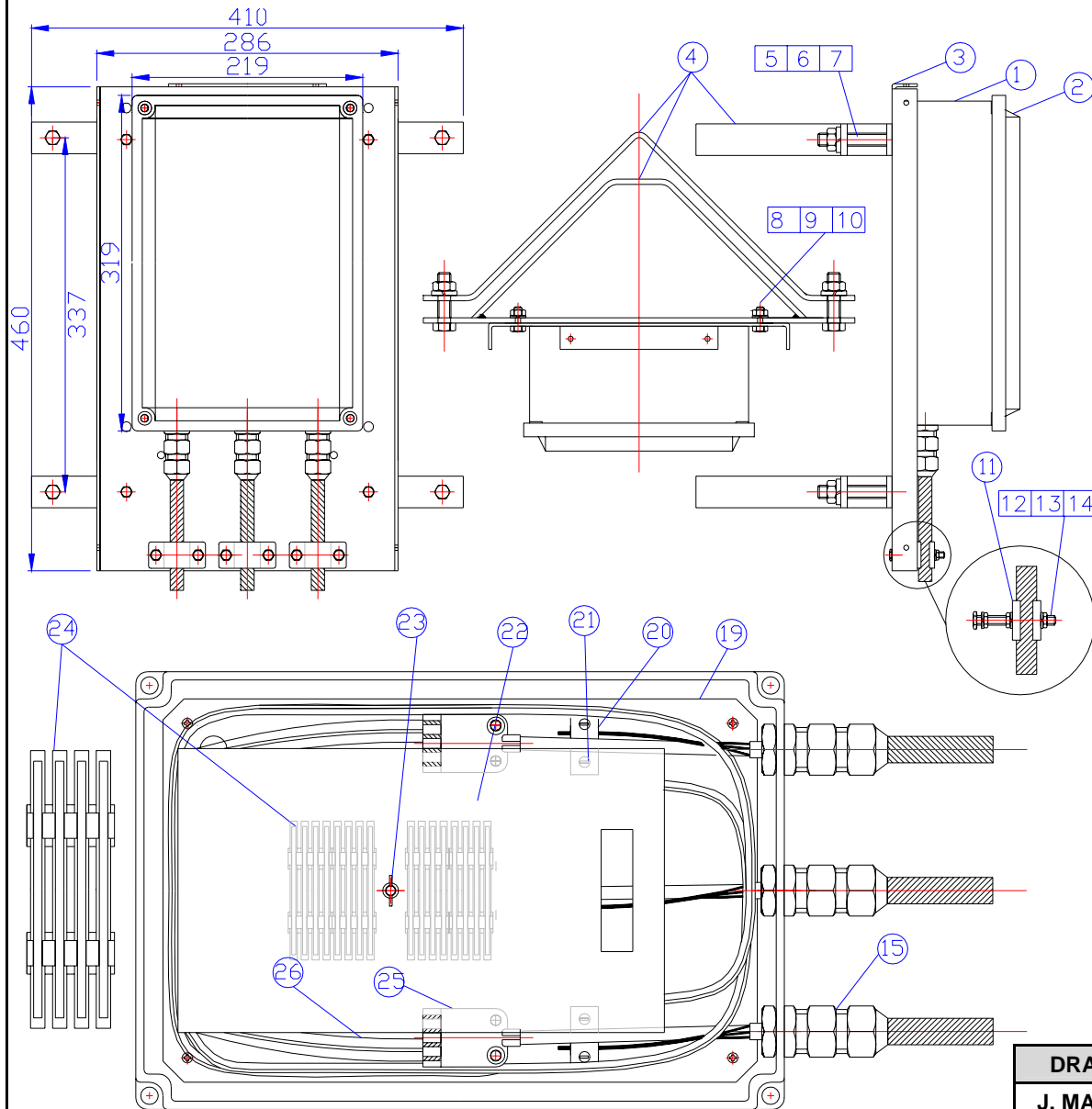
DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	



Joint boxes for OPGW with 12 fiber count will not have elements #25 and #26

Optical Joint Box EWMJ/C/S OPGW-DUCT-OPGW

REPLACES TO:
28.031.5XX
Sheet 1/1



REV	DATE	DESCRIPTION	QTY	MATERIAL	REF
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26		Transport tube 0.75m long	-	Plastic	
25		Fiber distributor	-	Plastic	
24		Pack of 14 splice protectors	-		
23		Screw and nut	1	Stainless steel	M5
22		Organizer for 24 splices	-	Aluminium	
21		Screw	6	Stainless steel	
20		Central element fixing plate	3	Aluminium	
19		Fixing plate	1	Aluminium	
18		Plug	0	Aluminium	
17		Self-shrinkable tube	0	Polyolefin	
16		Stern	0	Aluminium	
15		Press entrance	3	Aluminium	
14		Nut	18	Stainless steel	M6
13		Washer grower	12	Stainless steel	M6
12		Screw	6	Stainless steel	M6x50
11		Single bridge	6	Aluminium	
10		Nut	4	Stainless steel	M8
9		Washer grower	4	Stainless steel	M8
8		Screw	4	Stainless steel	M8x35
7		Nut	4	Stainless steel	M10
6		Washer grower	4	Stainless steel	M10
5		Screw	4	Stainless steel	M10x60
4		Collar tower support EWMJ	2	Galv. Steel	┘ 210
3		Joint box support EWMJ	1	Aluminium	
2		Joint box cover	1	Alum. Inject.	
1		Joint box	1	Alum. Inject.	EWMJ
POS	DENOMINATION		QTY	MATERIAL	REF

DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	

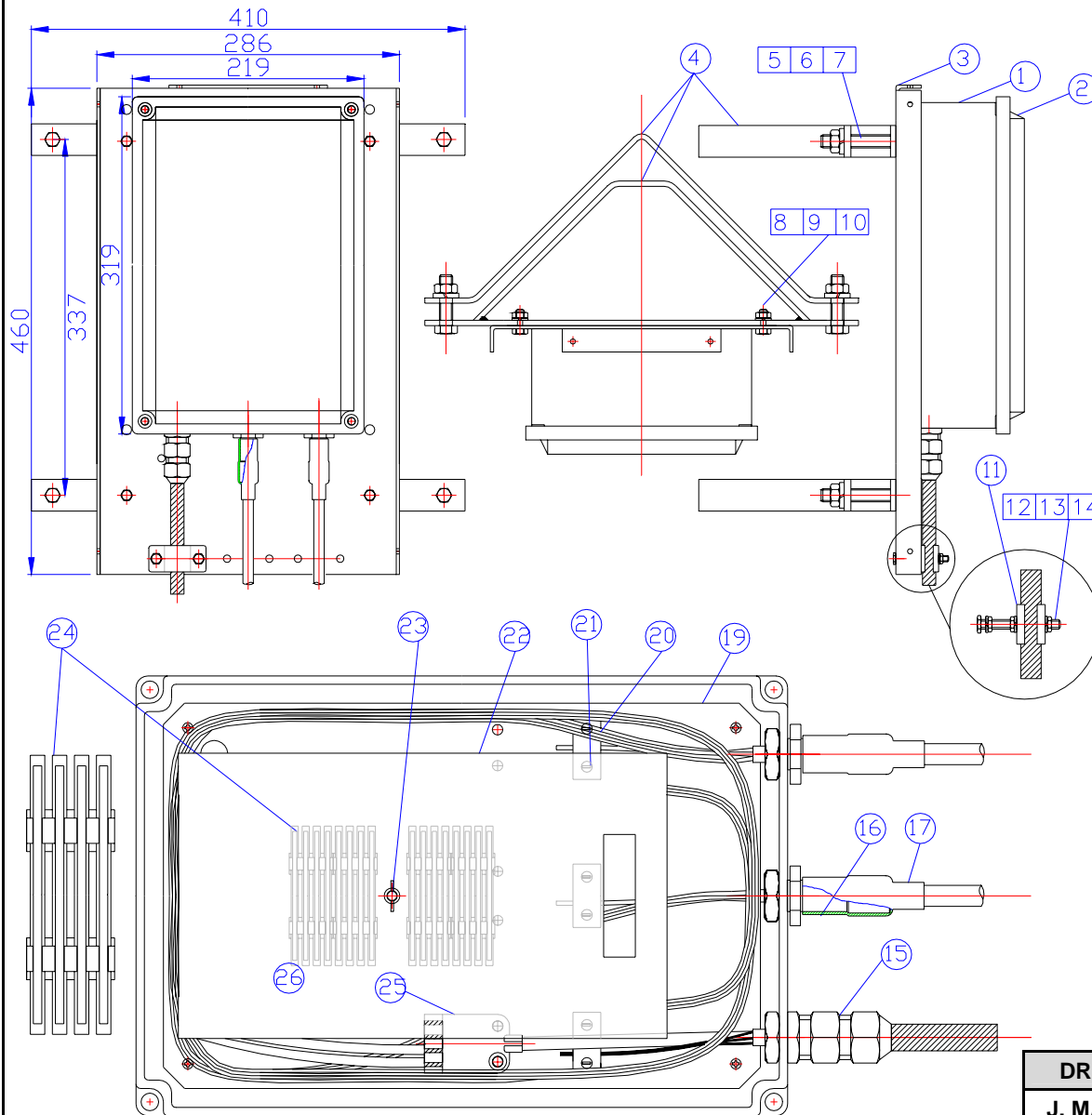


Joint boxes for OPGW with 12 fiber count will not have elements #25 and #26

Optical Joint Box EWMJ/D/S OPGW-OPGW-OPGW

REPLACES TO:

28.031.6XX
Sheet 1/1



REV	DATE	DESCRIPTION			
2	12-01-04	Changed material of elements #3, #15, #18, #19 and #20			
27					
26		Transport tube 0.75m long	-	Plastic	
25		Fiber distributor	-	Plastic	
24		Pack of 14 splice protectors	-		
23		Screw and nut	1	Stainless steel	M5
22		Organizer for 24 splices	-	Aluminium	
21		Screw	6	Stainless steel	
20		Central element fixing plate	3	Aluminium	
19		Fixing plate	1	Aluminium	
18		Plug	0	Aluminium	
17		Self-shrinkable tube	2	Polyolefin	
16		Stern	2	Aluminium	
15		Press entrance	1	Aluminium	
14		Nut	6	Stainless steel	M6
13		Washer grower	4	Stainless steel	M6
12		Screw	2	Stainless steel	M6x50
11		Single bridge	2	Aluminium	
10		Nut	4	Stainless steel	M8
9		Washer grower	4	Stainless steel	M8
8		Screw	4	Stainless steel	M8x35
7		Nut	4	Stainless steel	M10
6		Washer grower	4	Stainless steel	M10
5		Screw	4	Stainless steel	M10x60
4		Collar tower support EWMJ	2	Galv. Steel	┘ 210
3		Joint box support EWMJ	1	Aluminium	
2		Joint box cover	1	Alum. Inject.	
1		Joint box	1	Alum. Inject.	EWMJ
POS	DENOMINATION		QTY	MATERIAL	REF

DRAWN	CHECKED	REV	2
J. MARTIN	J. MARTIN	SCALE	~
30/05/03	30/05/03	REF	

Joint boxes for OPGW with 12 fiber count will not have elements #25 and #26

Optical Joint Box EWMJ/IS DUCT-DUCT-OPGW

REPLACES TO:
28.031.8XX
Sheet 1/1