



Recess pipe AR



Displacement pipe VR



Water feed pipe WFR



Foundation tubular casing FKR

# Pipe Systems



## About Us

Since 1963, products for the ventilation and construction industry have been manufactured at our plant facility at 66625 Nohfelden / Sötern by optimally trained and experienced employees.

The name **MSL** stands for **M**=Mathieu, **S**=Schalungssysteme [Formwork Systems] and **L** = Lufttechnik [Ventilation Technology].

The **MSL** production facility is approximately 49000 m<sup>2</sup> and is in the middle of the Saar-Hunsrück nature park in northern Saarland.

24 qualified and highly-motivated **MSL** employees work with the goal of providing our customers with the highest degree of quality and competence in both core areas of casing and ventilation components and to do so with cutting-edge production facilities and methods but always in a personable, trustworthy environment.

Approximately 700 tons of steel plates are processed annually in the 5400 m<sup>2</sup> production hall are shipped to small and large construction sites in Germany, Europe and overseas.

Quality according to **ISO 9001:2000** has been a standard at **MSL** for years.

A trusting collaboration with our customers and business associates, reliability, punctuality and innovative product development has set our company apart for years.

It is not by accident that we say: **We are there for you!**

We will continue this in the future as well, always with a perspective of the required modifications and changing needs as well as for the latest innovative technologies without losing the perspective of our proven core competencies. This is how we want you to judge us.

Ingo Mathieu  
Managing Director



Mathieu Schalungssysteme und  
Lufttechnische Komponenten GmbH

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### MSL works in two core areas:

#### The area of casing systems with specialization in these areas:

- Tubular casings
- Recess frames
- Foundation lateral casings
- Sole and ceiling edge casing
- Work joint systems such as siding and edging
- Recess pipes, displacement pipes and casing pipes
- Special casing according to diagrams

#### The area of ventilation components:

- Folded spiral pipes to a diameter of 2000 mm
- The formed shape product range includes all parts required for ventilation systems

With our logistics partners we are able to fill the majority of our orders in less than one week after receipt of the order.

**Send us your queries. We will be happy to send you our detailed product documents.**

**WE ARE THERE FOR YOU!**



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## VR Displacement pipes

The **MSL** displacement pipes made of steel strips are very good bearing hollow bodies which can be checked for stability. Not just plate thickness but also form, height and number of beads are the decisive factors for stability. **MSL** produces 35 different pipe diameters from 0.1 to 2 meters and can thereby supply almost all dimensions required in the construction industry as a folded spiral tube. Since the end of the 1960's, we have been manufacturing displacement pipes at our company for the widest range of applications in Germany, Europe but also for overseas.

Thus, a **MSL** displacement pipe in the diameter of 1.8 meters was supplied as casing for a ventilation shaft for a tunnel construction site.

A very large area of application is in the area of bridge engineering. Here several thousand meters were produced in different diameters for many bridge projects in Germany, Austria, France and Africa.

By using connector joints, any extruded lengths can be created on site. To ensure buoyancy, single or dual point anchors can be supplied depending on the need. Distance brackets are offered for leveling and distancing of the displacement pipes according to the pipe diameters and the height dimensions required by the statical engineer. Instead of an end cover, a conical end lock can be attached to the pipe which guarantees better laying of the prestressing elements at the end of the displacement pipe.

We are happy to provide you with further information on the topic of displacement pipes in bridge construction such as the anchoring system and assembly instructions. **MSL** displacement pipes are generally manufactured from Sendzimir-galvanised plates in individual lengths of 6 to 10 meters.

Material Galvanised Steel			
Pipes diameter (cm)	Weight (kg/m)	Wall thickness (mm)	Bead height (mm)
*10.0	1.1	0.4	3.0
*12.0	1.4	0.4	3.0
*12.5	1.4	0.4	3.0
*15.0	1.7	0.4	3.0
*18.0	2.1	0.4	3.0
*20.0	2.3	0.4	3.0
*25.0	2.9	0.4	3.0
*28.0	3.3	0.4	3.0
*30.0	3.5	0.4	3.0
*35.0	4.9	0.4	8.0
*40.0	5.6	0.4	8.0
*45.0	6.3	0.4	8.0
*50.0	7.0	0.4	8.0
55.0	7.7	0.4	8.0
57.5	8.1	0.4	8.0
60.0	8.4	0.4	8.0
65.0	9.1	0.4	8.0
70.0	9.8	0.4	8.0
75.0	13.7	0.5	8.0
80.0	14.6	0.5	8.0
85.0	15.5	0.5	8.0
90.0	16.4	0.5	8.0
95.0	17.3	0.5	8.0
100.0	22.4	0.6	8.0
105.0	23.5	0.6	8.0
110.0	24.6	0.6	8.0
115.0	25.7	0.6	8.0
120.0	32.8	0.8	8.0

\* All pipe diameters in 6 m part length are in stock.  
Larger diameters (to ø 200 cm) upon request.  
Drainage braces diameter ø 3 cm, 5 cm long.



Installation of displacement pipes at a bridge construction site



Displacement pipe ø 1.8 m for ventilation shaft in tunnel construction

### TENDERING TEXT:

**MSL displacement pipe, type VR Manufacturer: MSL**

Manufacture piece of recess from folded spiral pipe. Material: Black/galvanised. Bead depth and diameter according to MSL list.

Size: D=\_\_\_\_\_ cm, L=\_\_\_\_\_ cm

## Recess pipe ø 4 cm 50 cm



The **MSL** recess pipe is a folded spiral pipe that is left-handed and bent in a helical shape with reinforcement beads of 2.5 mm to 9 mm bead height. The material strength of the pipe has a diameter of 0.20 to 0.75 mm each.

**MSL** recess pipes are waterproof so that no cement glue can penetrate inward when the pipe vibrates.

**MSL** recess pipes have a very high traverse load stability and also have a high crown load stability which is effective during transport, storage and processing of the pipes.

Recess pipes from diameter 40 to 80 mm can be connected to a train of pipes with screw-in connectors (nipples) or screw-on connectors (bushings). (Only upon request because not in stock).

It is also possible to have the pipe produced at a prescribed radius, i.e. bent on one side depending on the pipe diameter.

**Material:**

Cold-rolled steel plate galvanised or black depending on availability. The **MSL** pipes are kept in stock primarily in 3 and 6 m pipe lengths.

For applications of the **AR**-recess pipe see page 1-2.

**Note:** Diameter 3.5 cm available upon request because they are not in stock. ARDN for Ø 6.5 / 8 / 12 cm are only available with a small nail wheel.

Type	Type		ARD	ARDN	ARDK	ARDKN
	Pipe interior diameter (cm)	Bead height (mm)				
*4	2.5	0.3			•	•
*5	2.5	0.4			•	•
*6	2.5	0.5			•	•
*6.5	2.5	0.6	•	•		•
*7	2.5	0.7			•	•
*8	2.5	0.8	•	•	•	•
*10	3.0	1.1	•	•	•	•
*12	3.0	1.4	•	•	•	
12.5	3.0	1.4	•	•	•	•
*15	3.0	1.7	•	•	•	•
*18	3.0	2.1	•	•	•	
*20	3.0	2.3	•	•	•	•
*25	3.0	2.9	•	•	•	•
*28	3.3	3.3	•	•		
*30	3.0	3.5	•	•	•	
*35	8.0	4.9	•	•		
*40	8.0	5.6	•	•		
*45	8.0	6.3	•	•		
*50	8.0	7.0	•	•		

\*All pipe dimensions are in stock

Above Ø 30 cm, no plastic covers are available

• Cover available

# Recess pipe beaded

AR

## Recess pipe Ø 55 cm - 200 cm

Type			ARD	ARDN
Pipe interior diameter (cm)	Bead height (mm)	Weight (kg/m)	Cover, steel with nail edge, fixed	Cover, steel with nail Edge, loose
55	8.0	7.7	•	•
60	8.0	8.4	•	•
65	8.0	9.1	•	•
70	8.0	9.8	•	•
75	9.0	13.7	•	•
80	9.0	14.6	•	•
85	9.0	15.5	•	•
90	9.0	16.4	•	•
95	9.0	17.3	•	•
100	9.0	22.4	•	•
105	9.0	23.5	•	•
110	9.0	24.6	•	•
115	9.0	25.7	•	•
120	9.0	32.8	•	•
125	9.0	34.2	•	•
130	9.0	35.6	•	•
140	9.0	38.3	•	•
150	9.0	41,1	•	•
160	9.0	43.8	•	•
180	9.0	49.3	•	•
200	9.0	54.8	•	•



Recess pipe/ Displacement pipe D=1000 mm, L=1000 mm, Scope of delivery



Recesses in the bear plate



Recess pipe with a special construction

**Note:** We supply covers made of stainless steel or plastic with or without nail wheel for nailing to the casing or as a cover plate. No plastic covers are available over 30 cm diameter.

**TENDERING TEXT:**

MSL displacement pipe, type AR Manufacturer: MSL

Manufacture piece of recess from folded spiral pipe. Material: Black/galvanised. Bead depth and diameter according to MSL list.

Size: D= ..... cm, L= ..... cm

For pressure-free water drainage

Note

The pipe lines must be protected against lateral displacement and indenting, e.g. by assigning fixed points at a distance of max. 4 m with a pipe diameter to 50 cm, 3 m with a pipe diameter to 80 cm and 2 m with a pipe diameter to 90 cm. For all pipe diameters, the pipes must lay uninterrupted and be laterally supported by pilings. Otherwise, they have to be filled with soil to over half of the diameter.

These dimensions are required because the pipes cannot withstand the flowing pressure of the water without anchoring and correct support.

Special measures must be taken for changes in direction (arcs). The connection of the individual pipes is through a plug-in connector, quick-closure sleeve and sealing tape. Special shapes which are required such as segment arcs, branch pieces and reduction pieces can be supplied on request.

For example:

- To divert streams during required cleaning work on the stream bed
- To divert water during work in swamp and marsh areas
- To divert water from excavation ditches which are under the groundwater level
- Larger water volumes can also be taken care of by distributing them to several pipe trains.

Pipe diameter (cm)	Weight kg/m
20.0	3.3
25.0	3.9
30.0	4.6
35.5	7.3
40.0	8.3
45.0	9.3
50.0	10.3
56.0	11.6
60.0	12.4
63.0	17.7
71.0	20.0
75.0	21.1
80.0	22.5
85.0	23.9
90.0	25.3

Larger pipe diameters available upon request



**TENDERING TEXT:** MSL displacement pipe, type WFR Manufacturer: MSL  
 Manufacture piece of recess from folded spiral pipe. Material: Black/galvanised. Bead depth and diameter according to MSL list.  
 Size: D=\_\_\_\_\_ cm, L=\_\_\_\_\_ cm

# Tubular casing round

**FKR**  
**FKLR**

## Anchoring pipe

The round foundation tubular casing type **FKR** or **FKLR** was developed in the mid-1990s at our company and introduced on the construction market with a shaft profile of 10/26 mm. With development, it was very important for us to find a solution with which we could produce any diameter.

- Every diameter from 120 mm is available.
- By profiling 10/26 inward and outward, the result is high stability to absorb the pressure of the fresh cement.
- The recess is ideally suited as casing for an anchoring system, e.g. machine foundations in which high dynamic forces generally occur. Due to the large profiling, the round **FKR**-model is superior to the recess and displacement pipes for this application.
- Compared to angular recesses, the round ones only have to be braced with considerably larger dimensions.
- The system has proven to be extremely effective as exterior casing.
- The system can also be manufactured in a shaft-profiled perforated plate construction. This creates an optimal bound between the concrete and the casing shell. The cement dispersion dimension should not exceed 40 (consistency range K2), otherwise we recommend the non-perforated, closed model.



With top cover Ø 220 mm

Recesses with a round design

- Shaft profiled approx. 10/26 mm

**Material:**

**FKR** Steel plate black or galvanised, thickness = 0.5 mm

**FKLR** Perforated plate black or galvanised, thickness 0.75 mm

**Profile:**

Approx. 10/26 mm



FKR diameter 220 mm, 1200 pieces for high bay warehouse



FKR, diameter 1860 mm as exterior casing



Special casing for machine foundation



External casing

**TENDERING TEXT:** MSL foundation tubular round with shaft profile, Type **FKR** Manufacturer: **MSL**  
 Piece of tubular from pre-fabricated casing tubulars made of shaft-profiled material. Manufacture profile 1.0 x 2.6 cm  
 Size: D= \_\_\_\_\_ cm, L= \_\_\_\_\_ cm

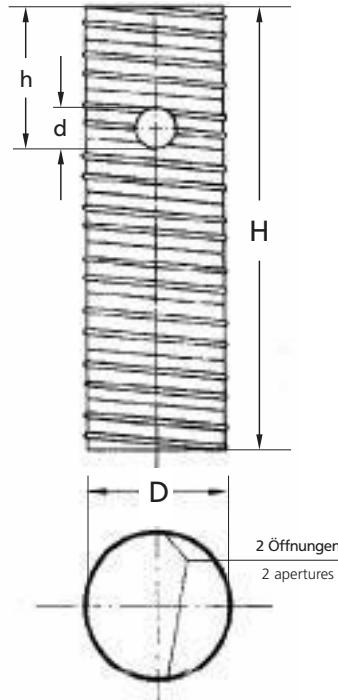
Wickelfalzrohre aus Stahlblech verzinkt

- einbaufertig
- mit / ohne eingesetztem Bodenblech bzw. Deckel
- mit / ohne Ausschnitten bzw. Bohrungen für Kabeleinführung

MSL-Fundamentrohre werden nach dem gleichen Verfahren wie die Verdrängungrohre schraubenförmig gebogen und betondicht gefalzt hergestellt. Versteifungssicken, je nach Durchmesser von 2,5 mm bis 9 mm, geben den Fundamentrohren eine sehr hohe Stabilität zur Aufnahme des Frischbetondruckes. Die Rohre können in jeder beliebigen Länge gefertigt werden. Je nach Verwendung werden die Rohre mit fest eingerolltem Bodenblech ausgeliefert. Als obere Abdeckung werden lose Deckel angeboten, die jedoch in der Standardausführung nicht begebar sind. Die Rohre können im Durchmesser von 4 cm bis 200 cm geliefert werden.

Bei Einsatz als Lichtmastfundament können zusätzlich Ausschnitte bzw. Bohrungen für die spätere Kabeleinführung angebracht werden.

MSL-Fundamentrohre Typ FKVR werden in der Regel in verz. Ausführung angeboten. Eingesetzt werden die Rohre z. B. als Außenschalung bei Blockfundament, als Fundamentalschalung für Pfosten und Schilder, als Strommastfundament oder als Schalelement für Lichtmastfundamente. Hier hat es sich gezeigt, dass im Schadensfall ein beschädigter Lichtmast in der Regel erheblich einfacher und wirtschaftlicher ausgetauscht werden kann.



Folded spiral-seam piping of zinc-coated sheet metal

- ready for installation
- with / without inserted base plate / top cover
- with / without cut-outs or drill holes for wiring

MSL foundation piping is manufactured using the same process as for displacement piping - screw-shaped bend, folded leak proof. Reinforcement beading of 2.5 to 9 mm depending on diameter gives the foundation piping very high strength to resist the pressure of the fresh concrete. The piping can be made in any desired length. It can be supplied with base plate rolled in if the intended use dictates. Loose top covers are offered.

Please note these cannot be stepped on in the standard design. Piping is available in diameters from 4 to 200 cm.

When used as lamppost foundations cut-outs or drill holes for later wiring can be provided.

MSL foundation piping type FKVR is usually supplied zinc coated. It is used e.g. as external shuttering for block foundations, as foundation shuttering for posts and signs, as electricity pylon foundations or as shuttering elements for lamp post foundations. In the event of damage it makes it easier and cheaper to replace a lamppost



Typ/Type FKVR	Anzahl/ Number	∅ cm	Höhe cm Height cm	Mit Boden/ With base	Mit oberer Abdeckung/ With top cover

Lieferanschrift / Shipping address: \_\_\_\_\_

Ansprachpartner / Contact	Bedarf - Termin / Need - date
Kalkulation / Calculation	Telefon -Fax / Telephone - Fax

**Ausschreibungstext** ..... Stück Lichtmastfundament aus verzinktem Wickelfalzrohr herstellen, Typ FKVR als Lichtmastfundament. Größe: D = .....cm, L = ..... cm mit/ohne fest eingebautem Boden/Deckel, mit/ohne Bohrungen für Kabeleinführung: 1 Bohrung  ; 2 Bohrungen

Text for invitation of tenders \_\_\_\_\_ pcs lamppost foundations of zinc coated piping with spiral seams, type KFVR, as lamppost foundations, Manufacture Size D = \_\_\_\_ cm, L = \_\_\_\_ cm with/without preinstalled base/cover, with/without drill holes for wiring – either one  or two .



Lichtmastfundamente / Lamppost foundations

Das Problem:

Beschädigte Lichtmaste oder Schilder, die direkt im Erdreich einbetoniert sind, müssen mit viel Aufwand ausgegraben werden!

The problem:

Damaged lampposts or signs directly concreted into the ground have to be expensively dug out.



- ① Die Aussparungen werden ins Erdreich eingebracht, das Kabel wird eingeführt und die Aussparung von außen betoniert.
  - ② Danach wird der Mast gestellt und anschließend die Aussparung mit Sand verfüllt.
  - ③④ Zuletzt wird im oberen Bereich eine dünne Schicht Magerbeton aufgebracht, die im Schadenfall leicht zu entfernen ist.
- ① The cavities are inserted in the ground, wiring installed and they are then filled with concrete from outside.
  - ② The post is then fixed in place and the cavity filled with sand.
  - ③④ Finally, a thin coat of lean concrete is poured at the top that can easily be removed in the event of damage.

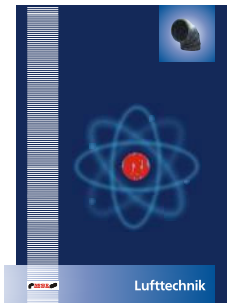
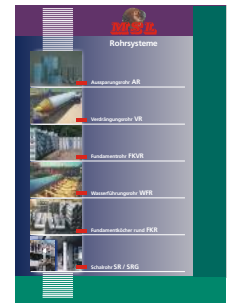
Anwendungsbeispiel: Strommastfundament, Foto 5 bis 10

Example of use: Electricity pylon foundations, photos 5 to 10



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MSL -Type	Number	Diameter	Length	Cover		Delivery Date	Requirements
				Fixed	Loose		
Recess pipe AR							
Displacement pipe VR							
Water feed pipe WFR							
Foundation tubular casing FKR							
Company							
Contact person							
E-Mail:							
Phone/Fax no.							
Fax:							
Delivery address							
Company:							
Street: Zip: City:							
Contact person: Tel:							



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**MSL** Schalungssysteme im Baustelleneinsatz

**Unser Lieferprogramm:**

- Köcherschalungssysteme
- Fundamenteitenschalungssysteme
- Aussparungskörper
- Sonderschalung
- Lufttechnische Komponenten
- Schalrohre
- Aussparungsrohre
- Verdrängungsrohre
- Verbundabschalungssysteme / Arbeitsfugen aus wellprofiliertem Lochblech

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Schalungssysteme im Baustelleneinsatz

**DVD**

**Fundamenteitenschalungssysteme im Baustelleneinsatz**

FS 2001	4 min.
FS 2001 G	10 min.
FS 2001 light	9 min.
FS 2050	11 min.

(Ges. Länge 34 min.)

**Fundamenteitenschalung**

Typ FS 2001 und FS 2001 light im Baustelleneinsatz (Filmlänge 7,5 min.)

**Fundamenteitenschalung**

Typ FS 2001 light im Radius. Bauvorhaben Fachhochschule Schweinfurt (Filmlänge 2,5 min.)

**MSL**

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**MSL**

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