



Flaig + Hommel



**NEW!**  
ALUMINIUM-VERSION

# FH<sup>®</sup> ECO Plug

## DIN 908 Typ L and 910 Typ L

ALUMINIUM- AND STEEL VERSION

WEIGHT REDUCTION  
COMPARED TO STEEL  
MORE THAN

**70%**

### DROP THE WEIGHT!

Our new aluminium version offers excellent potential to further lower the unit weight and thus, particularly in the automotive industry, reduce CO<sub>2</sub> emissions.

And the best thing is: The weight reduced aluminium version doesn't cost you any more than the steel version!

**Customer specific shapes and solutions for complex demands are our forte!**



DIN 910 Typ L

## FH® ECO Plug – ALUMINIUM- AND STEEL VERSION

# FURTHER WEIGHT REDUCTION EXCEED

Where weight reduction paired with utmost cost effectiveness is required. Now also in the price-neutral aluminium version.

Where weight reduction and utmost cost effectiveness is concerned, there is no way around the FH® ECO Plug solutions from Flaig + Hommel. By using aluminium, the comparable unit weight has been further reduced by more than 70%.

Particularly in CO<sub>2</sub> relevant applications as in the automotive industry, such weight reduction, while maintaining the highest production efficiency, offers unbeatable advantages.

But that is not enough: One of Flaig + Hommel's key strengths are customer specific solutions with additional benefits.

Challenge us and discuss your objectives with us today.

**Flaig + Hommel.**  
Customer specific solutions made simple!

### The advantages:

- Various key-grips according to DIN 908:
  - Torx
  - Hexagon Socket
  - Twelve Point Socket
- according to DIN 910:
  - Hexagon Head Screw Plug
- Patent pending
- Cold forged without subsequent machining

### Comparison Type R and Type L

- Weight reduction in the steel version more than 20 % compared to the regular "Heavy version"
- Weight reduction in the aluminium version exceeds a further 70 % compared to steel

FH® ECO Plug Steel Version



FH® ECO Plug Aluminium Version





# ING 70 % POSSIBLE!



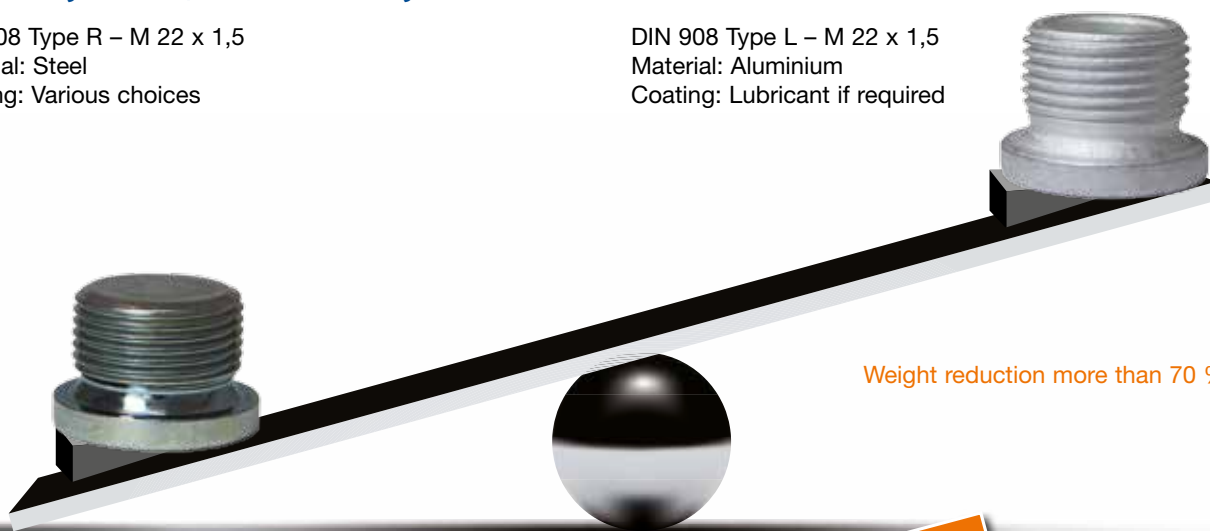
### Comparison of two standard examples

#### Standard sealing plug according to DIN, STEEL (R=regular)

DIN 908 Type R – M 22 x 1,5  
Material: Steel  
Coating: Various choices

#### FH® ECO Plug ALUMINIUM

DIN 908 Type L – M 22 x 1,5  
Material: Aluminium  
Coating: Lubricant if required



Weight reduction more than 70 %



#### Special design with magnet:

Minute particles and chips in the engine compartment are caught by the magnet.

#### Special design Closing plug:

Customer specific solution for the automotive industry made from aluminium.

#### V-Plug with self-sealing bead:

V-plugs in aluminium version with self-sealing bead to remove the need for a gasket.

#### Versions according to DIN 910 Type L:

In steel and aluminium versions according to DIN 910.





**Flaig + Hommel**

These key-grips are preferred for sealing plugs made from aluminium



d1		Hexagon Socket s	Torx T	Twelve Point Socket N	Weight reduction Steel / Aluminium R/L
Metric fine thread according to DIN 13 part 5, 6 or 7	Pipe thread according to DIN ISO 228-1				
M 10 x 1	G 1/8 A	5	T30	N6	68,12 %
M 12 x 1,5	G 1/4 A	6	T40	N8	68,60 %
M 14 x 1,5		6	T45	N8	70,18 %
M 16 x 1,5	G 3/8 A	8	T50	N10	69,39 %
M 18 x 1,5		8	T50	N10	70,86 %
M 20 x 1,5	G 1/2 A	10	T55	N12	71,65 %
M 22 x 1,5		10	T55	N14	71,46 %
M 24 x 1,5	G 3/4 A	12	T60	N16	72,22 %
M 26 x 1,5		12	T60	N16	72,86 %
M 27 x 2	G 3/4 A	12	T60	N16	72,81 %
M 30 x 1,5 / M 30 x 2		17	T80	N18	72,99 %

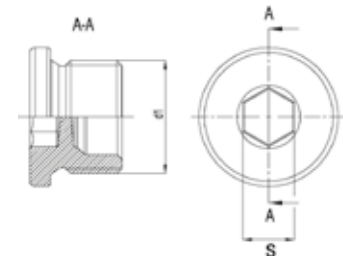
Custom sizes on request!



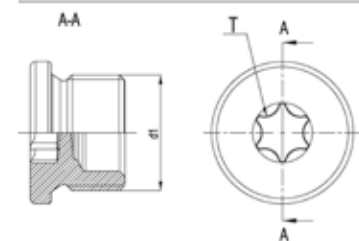
d1		a min.	d <sub>3</sub> max.	d <sub>4</sub> max.	s D12	m ± ½ IT 15	Weight reduction Steel / Aluminium R/L
Metric fine thread according to DIN 13 part 5, 6 or 7	Pipe thread according to DIN ISO 228-1						
M 10 x 1	G 1/8 A	2	6	6	10	6	~ 70 %
M 12 x 1,5	G 1/4 A	2	9	8	13 (12)	6	~ 70 %
M 14 x 1,5		2	9	9,15	13	6	~ 70 %
M 16 x 1,5	G 3/8 A	2	13	12	17 (16)	6	~ 70 %
M 18 x 1,5		2	13	12,7	17 (16)	6	~ 70 %
M 20 x 1,5	G 1/2 A	2	13	14	17 (16)	8	~ 70 %
M 22 x 1,5		2	15	16	19 (18)	8	~ 70 %
M 24 x 1,5	G 3/4 A	2	15	16,95	19 (18)	8	~ 70 %
M 26 x 1,5		2	15	18	19 (18)	8	~ 70 %
M 27 x 2	G 3/4 A	2	18	20	22 (21)	9	~ 70 %
M 30 x 1,5 / M 30 x 2		2	20	22	24	10	~ 70 %
M 27 x 2	G 3/4 A	2	20	23	24	10	~ 70 %
M 30 x 1,5 / M 30 x 2		2	20	26	24	10	~ 70 %

Also available: Sealing plugs according to DIN 906, 909, 7604 in steel and aluminium

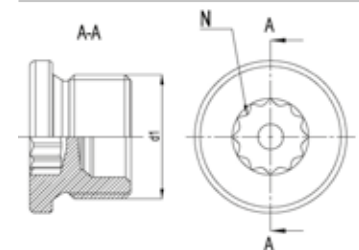
**Hexagon Socket**



**Torx**



**Twelve Point Socket**



**Hexagon Head Screw Plug**

