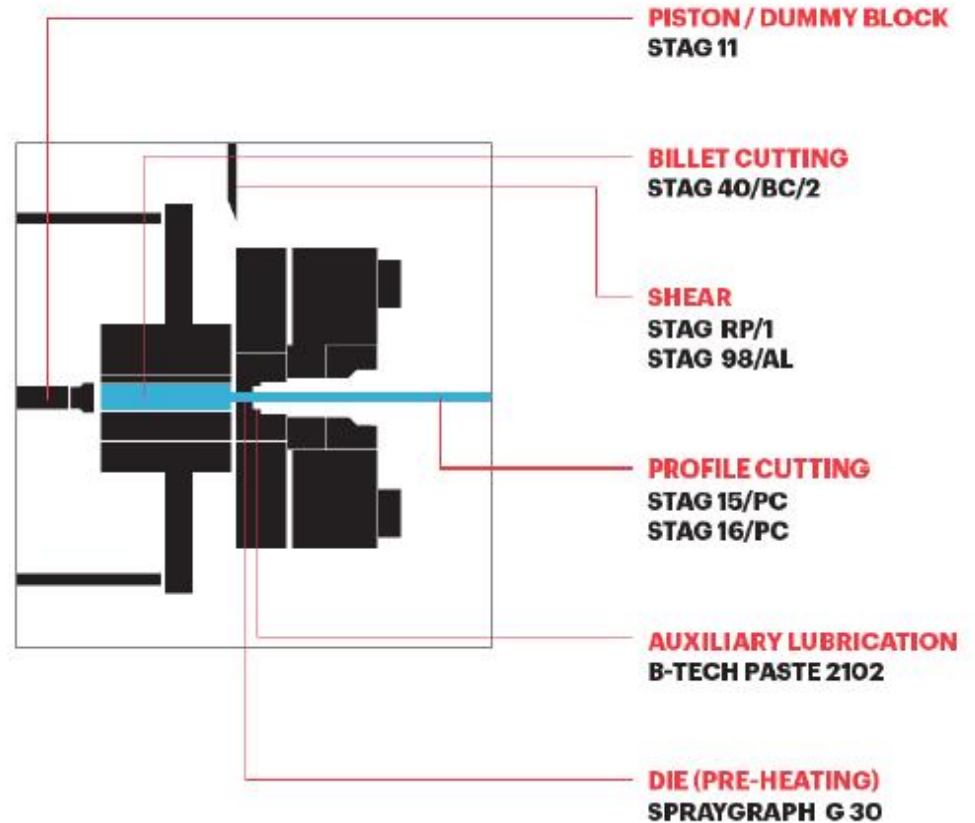
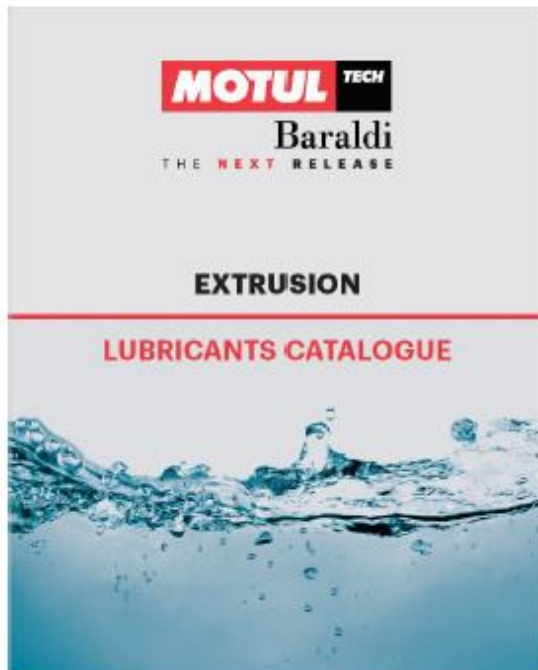


PRODUCTS CATALOGUE



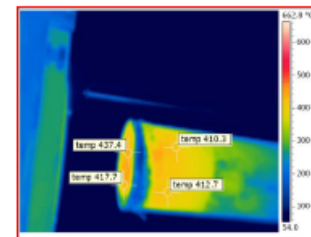
APPROACH: SUSTAINABLE LUBRICANTS

With increasing **focus on environment, health and safety** it becomes evident that all the traditional products that emit smoke, flames, dust, make the machine and workplace dirty and pose a **health and safety risk to operators** need to be replaced.

Baraldi presents a **new safe and environmental friendly** range of lubricants for the **Extrusion process**. They are able to replace and **demonstrate tangible improvements** over and above the conventional products used in the different application points of the Extrusion machine.



DUMMY BLOCK: STAG 11



TRADITIONAL PRODUCTS

Carbon Black: applied by acetylene flames. It is carcinogenic, requires special safety procedures for handling and disposal. Dangerous for operators and for the environment. It can cause black marks to the profile that may interfere with anodizing.

Greases or pigmented pastes: it burns. Only manual application. They produce flames and smoke in the environment. Can create blisters on the billet due to explosion.

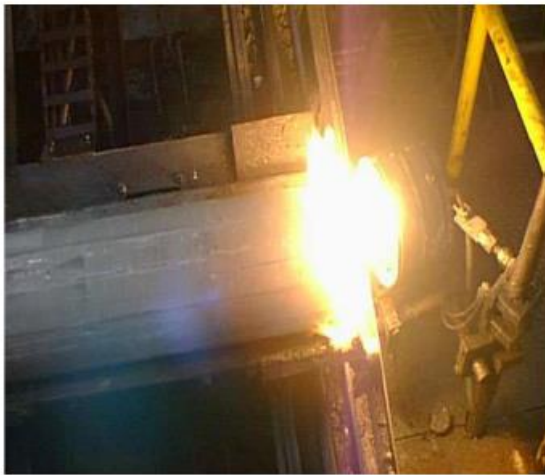
Boron Nitride: ceramic powder. It disperses into the environment, dirties the machine and makes the floor slippery. Dangerous for operators if inhaled and can create accumulations on the moving parts of the press. Expensive.

STAG 11

Innovative lubricant, in aqueous solution, formulated on the basis of a synthetic active component. Excellent adhesion and filming capacity on surfaces with temperatures above 400 °C – 750 °F

- Allows an excellent release / anti-sticking action;
- it is not harmful;
- it does not contain any oil and does not form harmful fumes or vapors;
- it is not flammable;
- it is easily applied by spraying systems.

TRADITIONAL PRODUCTS



CARBON BLACK



PIGMENTED GREASES



BORON NITRIDE

STAG 11: SUCCESS STORY VS. BORON NITRIDE



BEFORE: A Customer was using Boron Nitride powder with an **electrostatic system** since some years.

The releasing power was excellent but they **complained** about **deposit on the sliding guides, deposits and whitening of the press** and **more critical** the electrostatic equipment must be maintained perfectly to avoid **increasing consumption**.

In fact they had on a single press an **increasing of consumption from 120 Kg/year to 720 Kg/year**. After several and time consuming check they realized that the ceramic powder of Boron Nitride had consumed the inner hole of the nozzle greatly increasing its diameter and therefore its consumption. This was an **increasing of costs of 30.000 €/year for one press**.

AFTER: The Customer decided to use STAG 11 with a **dilution of 30% of product**, applied with an automatic spray system. They spray the billet each cycle and the dummy block each 7 cycle. The release power have been excellent and the press and the sliding guides were much more clean.

The **reduction of costs** compare with the Boron Nitride powder system in perfect condition of application, have been of **3.500 €/year in savings for one press** considering **only the lubricant costs** and not the **reduction of maintenance costs**.

STAG 11: APPLICATION

STAG 11 it is advisable to use the product **diluted in water**.

Apply **on the hot billet** or **on the dummy block**.

Start at a **dilution of 40% to 50%** (of product). Check if the spray is efficient every shot. There must be no dripping and no liquid bounced off the surface. Check if the film is deposited on the surface and if it is complete.

In case of no or insufficient sticking try firstly to reduce the concentration step by step, **down to 25%** (25% product and 75% water).

The film becomes yellowish or slightly brown in the following seconds after the application. Sometimes it can look like no film has been deposited, as it is not clearly visible, being brown/dark.

The **distance between the spraying nozzles and the surface to treat must be the shortest possible**.

If necessary increase the spray pressure (it depends on the sprayer used, at a distance of 300-400 mm between nozzle and billet surface, **could be up to 3 bars**).

Spray for few seconds (1-2 seconds), this is enough to cover the whole surface with a homogeneous thin layer of product.

Apply the product with an atomizing system avoiding excessive pressure that give rebound of the droplets towards the machine parts.

PROFILE CUTTING: STAG 15 / PC, STAG 16 / PC



STAG 15 / PC is a lubricant for profile cutting.

- Made of specially **selected raw materials of mineral origin**.
- **Reduces very much oily and carbon residues** on the profile after heat treatment.

STAG 16 / PC is the **newest lubricant** for profile cutting.

- Made of **specially selected premium synthetic raw materials**.
- **Vanishing**: it does not leave any residue on the profile after heat treatment.

END CYCLE SHEAR: STAG RP/1, STAG 98/AL



TRADITIONAL PRODUCTS

Mineral based lubricants: they do not always have a sufficiently high flash point. They can therefore have a negative impact on operators and the environment.

STAG RP / 1 is a lubricant for shears with the same performance as a traditional product but with **greater safety and lower environmental impact as a water emulsion of a mineral oil**. The aqueous vehicle guarantees:

- a very high lubricating and anti-seizing power;
- very low flammability risk;
- reduced harmfulness;
- furthermore, the water present allows the product to exhibit slight cooling properties while allowing further dilution.

STAG 98 / AL is a clean lubricant:

- fully synthetic;
- provided of a very high flash point;
- meets all the necessary requirements.

STAG RP/1, STAG 98/AL: APPLICATION

STAG RP/1 and STAG 98/AL can be applied by means of a **simple spraying system**. Preferably use a nozzle with a fan shaped stray. Apply about **1.0 - 2.0 grams per cycle**. A fine degree of atomization is not necessary.

STAG RP/1 it can be diluted up to a maximum of **25% by volume (or weight) of added water**.

BILLET CUTTING: STAG 40 / BC / 2

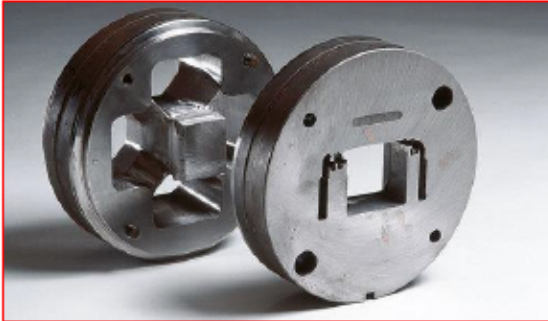


STAG 40 / BC / 2 is a specially studied lubricant for billet cutting.

It's main characteristics are:

- Completely **free of mineral oil and Chlorine additives, biodegradable.**
- Suitable both **for cold and hot billet** cutting.
- **Allow recovering and remelting chips and scraps.**

DIE: SPRAYGRAPH G 30



SPRAYGRAPH G 30 is a specially studied **spray for dry lubrication, based on graphite.**



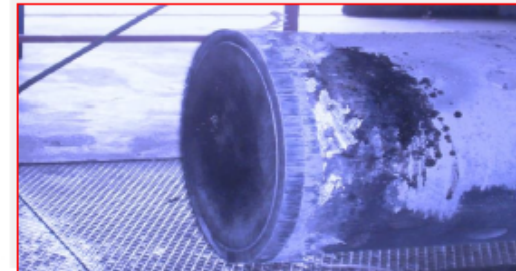
After cleaning the matrix it is necessary to **protect it during storage.** In this period and during the pre-heating in the oven it should have a protective coating providing good thermal resistance over 400 °C – 750 °F.

Sprayed on the surface at room temperature it dries quickly leaving a **lubricating and protective film of graphite.**

It ensures:

- Good adhesion at high temperature,
- Slight protection without any damage to the ovens,
- **Lubricating aid at the start-up.**

CONTAINER: B-TECH PASTE 2102



B-TECH PASTE 2102 it is a **pigmented copper paste** with a **very high viscosity** in the molten state. It is **applied to the closing ring between the machine and the container.**

It allows:

- a **better seal**;
- the **easy release of any unwanted traces of aluminum**;
- does not drip during application due to high viscosity and adhesive power.

Can be applied **also on the external surface of the dummy block**, this allows to easy removal of any aluminum residues that may have formed during the stroke of the piston.

MOTUL TECH
Baraldi
THE NEXT RELEASE

ARGUMENTS AND BENEFIT

- **Lubrication plays an important role** in the Extrusion process
- Development of new lubricants supports the **request of growing quality demands** from the market
- **Environment and safety requirements must be respected** and pursued
- MotulTech Baraldi has **a powerful integrated solution**, to increase the quality of finished products, maximizing the profitability of manufacturing processes!



MAIN REFERENCES



ITALY

HYDRO EXTR. ITALY
EURAL GNUTTI
METRA

FRANCE

CONSTELLIUM
HYDRO

FINLAND

MAKELA OY

GERMANY

APT
STEP-G
CONSTELLIUM
HAI

POLAND

HYDRO

MEXICO

CUPRUM

UK

SMART



ITALY

ESTRAL
ALEX
INDINVEST
PROFILATI
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PROFILS
SYSTEMES

BELGIUM

PROFALU

NETHERLANDS

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LDM BV

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JAPAN

YASUDA METAL
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NALCO



UAE

ALJABER
GULFEX

EGYPT

CANEX

QATAR

QALEX

SAUDI ARABIA

ALTAISEER AL CO.

JORDAN

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