316SS QUARTER-TURN & LINEAR ACTUATORS





Technical DATA

CONSTRUCTION ACTION

MATERIAL

VALVE APPLICATION

DESIGN TORQUE THRUST

TEMPERATURE RANGE

DESIGN PRESSURE

REQUEST)
IP PROTECTION
ATEX
EAC CU TR
PED

SIL CAPABILITY

SCOTCH YOKE COMPACT & HEAVY DUTY SPRING RETURN / DOUBLE ACTING

AISI 316 STAINLESS STEEL

ON-OFF / MODULATING / HIPPS QUARTER-TURN / LINEAR

QUARTER-TURN / LINEAR PNEUMATIC / HYDRAULIC

ISO 12490 / API 6DX / EN15714 / ASME VIII

QUARTER-TURN Nm 2.000.000

LINEAR N 10.000.000 °C -29°/+100° (F°-20/+212°)

°C -60° (F°-76°) on request PNEUMATIC Barg 12

HYDRAULIC Barg 250 (Barg 690 on request)

IP66/67M YES YES YES 3

Main APPLICATIONS

The PRO CONTROL product line includes high-grade carbon steel and 316 stainless steel actuators, offering versatile sizes without restriction. These actuators and control systems are designed to operate any type of valve, from control valves to on/off valves, ensuring continuous plant operation and efficiency. PRO CONTROL technologies are built to function in severe and adverse conditions, prioritizing the safety of both workers and the facility. The actuators and control systems can withstand extreme temperatures and dust, electromagnetic humid interference. coastal areas. and marine environments, all while maintaining full operational capacity.

CORROSION IS ONE OF THE MOST
COMMON FACTORS WHICH
CONTRIBUTES TO EQUIPMENT FAILURE
AND IS A THREAT TO PLANT
OPERATION, PROFITABILITY & SAFETY.
316 STAINLESS STEEL IS THE BEST
AVAILABLE RESPONSE TO HIGHLY
CORROSIVE ENVIRONMENTS.

The PRO CONTROL product portfolio includes quarter-turn and linear actuators made of 316 stainless steel, suitable for a wide range of applications. The 316 stainless steel actuator series are environmentally friendly and sustainable, contributing to a reduction in the plant's carbon footprint by minimizing the use of chemical coatings and frequent field maintenance costs.

PRO CONTROL's 316 Stainless Steel actuators help reduce the plant's carbon footprint by limiting the use of chemical coatings and significantly reducing regular field maintenance costs from both an operational and production standpoint. Alongside custom actuators, PRO CONTROL offers a comprehensive array of control systems for valve automation, ranging from simple pneumatic panels to more complex Control Stations and Hydraulic Power Units (HPUs) that can control single or multiple actuators simultaneously.

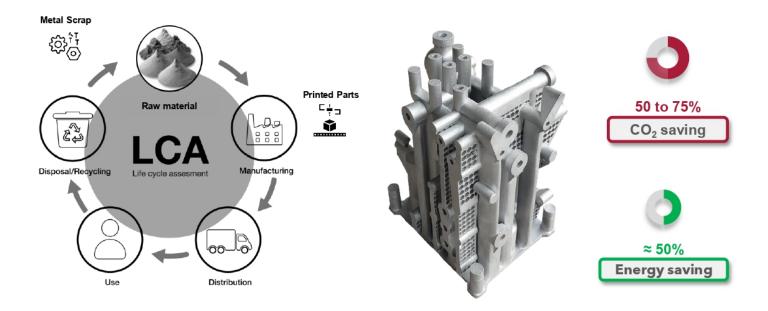






3D HYDRAULIC HIGH PRESSURE COMPACT MANIFOLD ADDITIVE MANUFACTURING





WEIGHT 9.8 KG **PROCESS**

PBF (POWDER BED FUSION) AISI 316L STAINLESS STEEL MATERIAL STANDARD API STD 20S 1ST ED.

316 Stainless Steel has a long history of successful use in many industries and applications, with a proven track record of reliability and performance. Its widespread adoption and acceptance by industry professionals and regulatory bodies reinforce its reputation as a trusted material for critical equipment in offshore environments and severe service applications. Among the various options available, 316 Stainless Steel stands out as a cornerstone material due to its remarkable properties and sustainability advantages, in fact its significance extends beyond its mechanical properties: one of the often-overlooked aspects of 316 Stainless Steel is its contribution to sustainability. Not only it is highly durable and corrosion-resistant, but it is also 100% recyclable in its original form. This characteristic makes it an integral part of the circular economy, where materials are reused, reducing the need for virgin resources and minimizing environmental impact. The composition of 316 Stainless Steel, rich in chromium, nickel, and molybdenum, renders it valuable and recyclable. Efficient collection and recycling processes ensure that end-of-life 316 Stainless Steel products can be transformed into new materials with minimal energy consumption and waste generation.

Unlocking Sustainable production with Additive Manufacturing: Our forward-looking perspective

Additive manufacturing, or 3D printing, has emerged as a promising avenue for sustainable production. When applied to metals like 316 Stainless Steel, additive manufacturing offers several sustainability benefits. By building components layer by layer, it reduces material usage and energy consumption compared to traditional subtractive manufacturing methods. Additionally, additive manufacturing enables the creation of complex geometries and customized designs, optimizing part functionality and minimizing material requirements.

This capability not only enhances product performance but also reduces material waste during production, making it ideal for Life Cycle Assessment (LCA). This innovative approach, now integrated into our Hydraulic High Pressure Compact Manifold for hydraulic actuator control systems, is revolutionizing the industry landscape. At PRO CONTROL, we've embarked on a journey to redefine traditional manufacturing paradigms, leveraging additive manufacturing to pioneer compact manifold solutions. These solutions, tailored for both low and high flow capacity circuits, not only exemplify our commitment to continuous improvement but also embody our dedication to sustainability. The decision to embrace additive manufacturing stemmed from our core belief in enhancing product efficiency while minimizing environmental impact.

Through Powder Bed Fusion (PBF), we've unlocked a fast, high quality printing process that aligns seamlessly with our sustainability objectives. The PBF process initiates with the creation of a 3D model, meticulously sliced into discrete layers. Each layer is then meticulously bonded atop the other, culminating in a finished product of exceptional quality and precision. The benefits of Powder Bed Fusion printing are multifaceted: not only does it minimize material wastage and cost, but it also facilitates rapid prototyping and low-volume production. Furthermore, it enables the construction of functionally graded parts, offering unparalleled customization and flexibility. The efficient recycling of unmelted powder further underscores its eco-friendly credentials, while the reduction in machining fixtures signifies a streamlined and resource-efficient production process. In tandem with our commitment to innovation, we adhere to the highest additive manufacturing standards, including API STD 20S and DNV ST-B203. These standards ensure the integrity and reliability of our products, aligning seamlessly with our ethos of excellence and sustainability.

