



LIQUID SILICONE RUBBER – LSR

> **SilcoStar** - the metering and mixing systems

KRACHT®
FLUID TECHNOLOGY AND SYSTEMS

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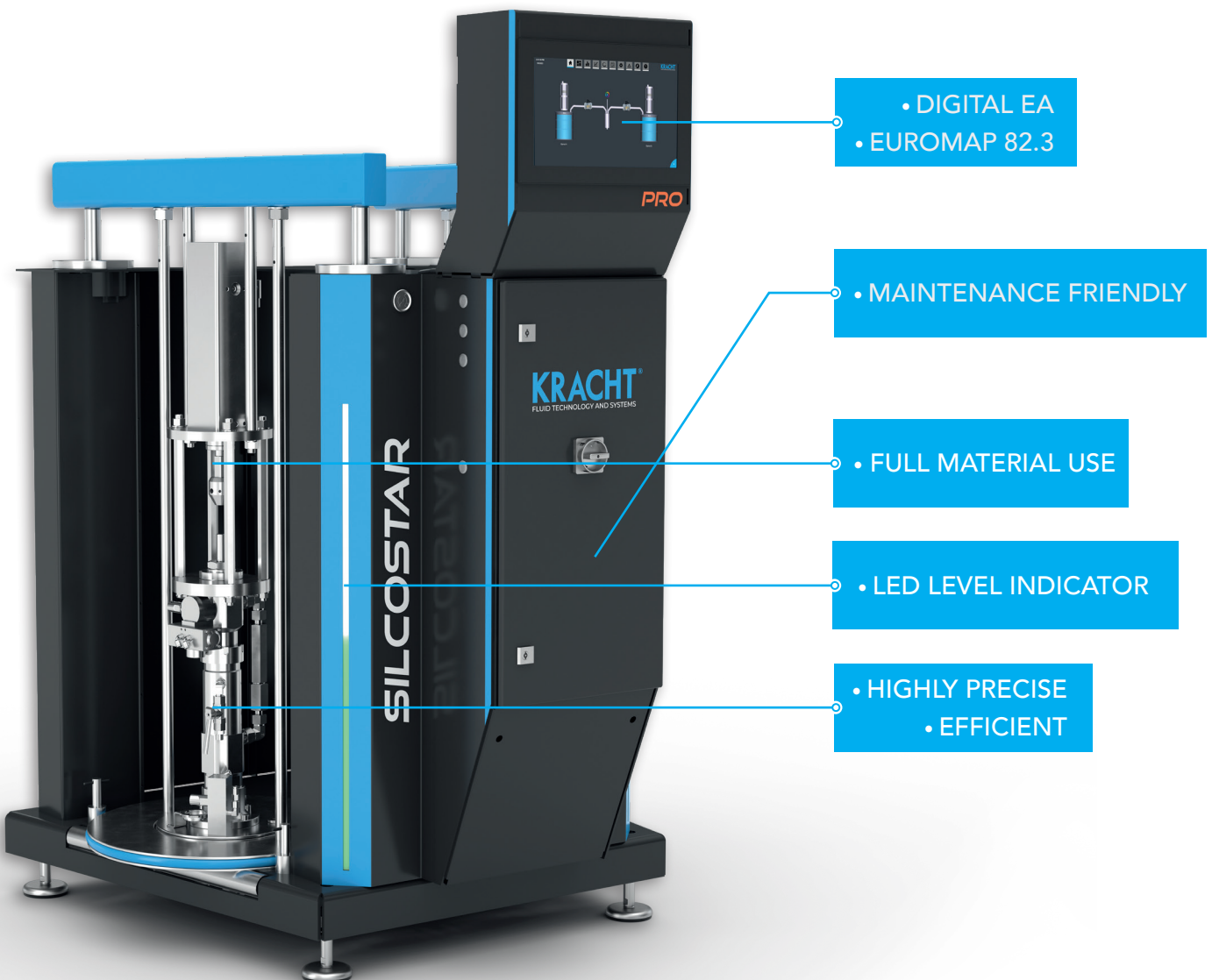
SilcoStar E-Drive

I General

The SilcoStar E-Drive series is a servo-electrically driven LSR metering system with a variably adjustable mixing ratio for the production of liquid silicone molded parts. The E-Drive is suitable for use in medical technology, among other things.

I Characteristics

- > Servo-electric linear drive with planetary roller screw drive (up to 10 times longer service life than conventional ball screws)
- > Highly precise metering even with small shot weights
- > Even emptying of the barrels by volumetric adjustment of the mixing ratio (adjustable 0 ... 15%) and patented barrel base support. This reduces the remaining amount in the barrels to less than 1%
- > Patented mixture pressure control directly on the mixing head for a constant metering time of the injection molding machine
- > Pressure monitoring with pressure sensors at the pump outlets and on the mixing head
- > Standardized connection panel (smart port)
- > Fill level and status display with a dynamic LED band
- > Follow plate combination for the use of 200 L or 20 L barrels
- > Automatic system and pump ventilation



- DIGITAL EA
- EUROMAP 82.3

- MAINTENANCE FRIENDLY

- FULL MATERIAL USE

- LED LEVEL INDICATOR

- HIGHLY PRECISE
- EFFICIENT

SilcoStar E-Drive

I Highlights

- > Modern industrial design
- > No restrictions on viscosities (e.g. fluorosilicones) as occur with spindle pumps or pneumatic drives
- > Up to 10 times longer lifespan than conventional ball screws
- > Energy-efficient drives
- > Intuitive and interactive machine operation as well as online manual and online operator guidance
- > “Medical ready” → suitable for clean rooms
- > Easy to maintain → low maintenance time and costs
- > Material waste < 40 g when changing barrels
- > Material utilization > 99.5% thanks to patented barrel base support
- > Mixing ratio control with exclusive double volume meter
- > Multiple addition of colours/additives

Technical and electrical data

Mixing ratio	variable
Colour metering	0.3 ... 4 %
Actuation	servo-electric
Electrical data	380 ... 480 VAC, 50 ... 60 Hz (3P + PE), 16 A
Connection LIM machine	24 V
Pneumatic system	R 1/4", 6 bar
Weight	730 kg
Dimensions	1 030 x 1 112 x 1 950 mm (W x D x H) Attention: Height plus 950 mm when pump is completely lifted

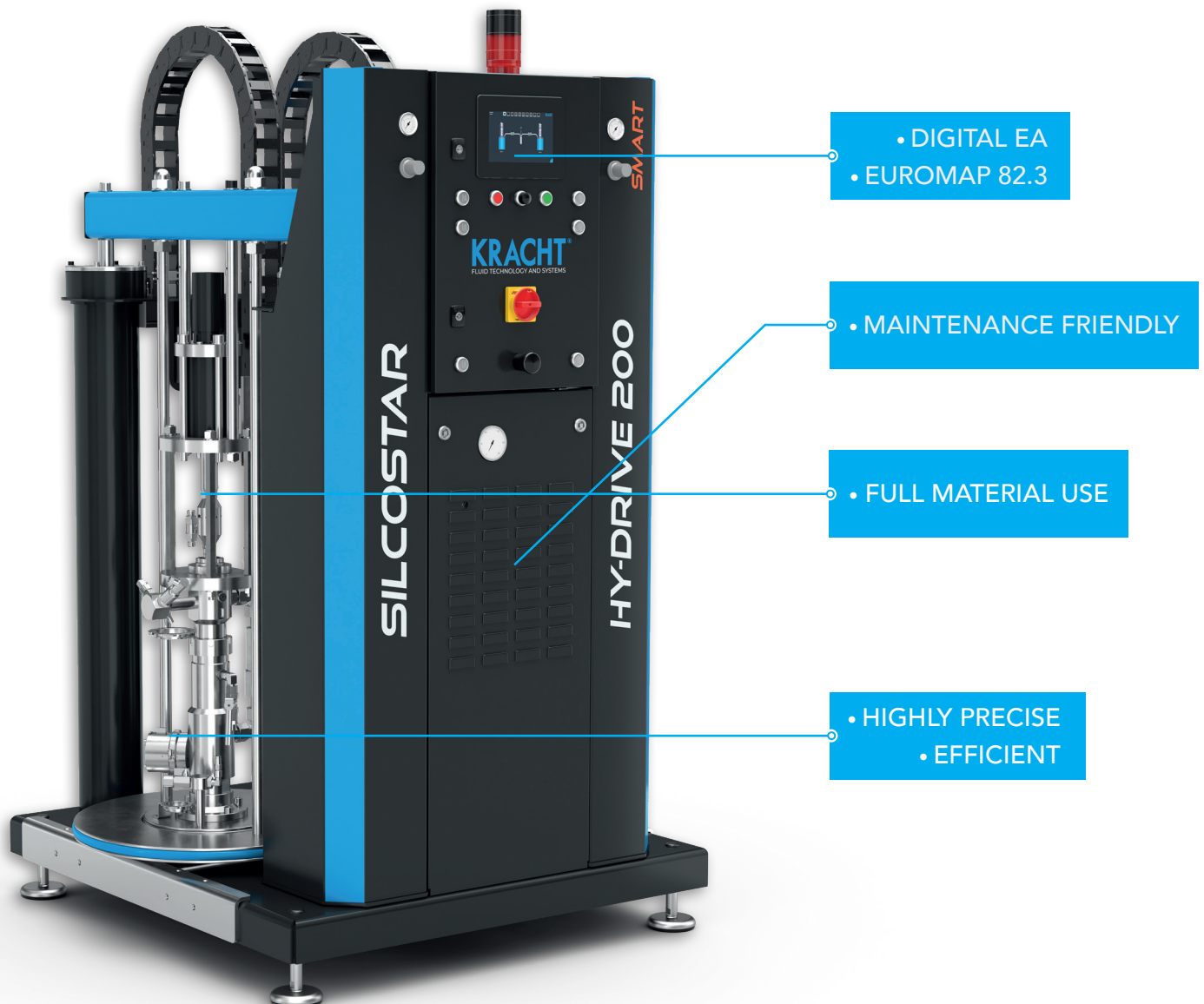
SilcoStar HY-Drive

| General

The SilcoStar HY-Drive series is a hydraulically driven LSR metering system. The basic equipment included forms the basic model of our SilcoStar product line. Thanks to its easy operation, the budget-friendly EASY version of the HY-Drive is ideal for newcomers. The HY-Drive has higher energy efficiency than comparable pneumatic or servo-electric machines. The hydraulically coupled drive cylinders ensure a fixed mixing ratio of 1:1.

| Characteristics

- > Hydraulic metering pump drive
- > Highly precise metering even with small shot weights
- > Follow plate combination for the use of 200 L or 20 L barrels (also available as a compact 20 L version)
- > Automatic follower plate ventilation
- > Even emptying of the barrels by volumetric adjustment of the mixing ratio (adjustable 0 ... 5%) and patented barrel base support. This reduces the remaining amount in the barrels to less than 1%
- > Pressure monitoring with pressure sensors at the pump outlets
- > Standardized connection panel → smart-port
- > Adjustable mounting base for easy setting up of the machine



SilcoStar HY-Drive

I Highlights

- > No restrictions on viscosities (e.g. fluorosilicones) as occur with spindle pumps or pneumatic drives
- > Perfect for mass production
- > Easy to use
- > Energy-efficient drives with a longer service life compared to electric or pneumatic drives
- > Easy to maintain → low maintenance time and costs
- > Material waste < 40 g when changing barrels
- > Material utilization > 99.5% thanks to patented barrel base support
- > Mixing ratio control with exclusive double volume meter
- > Multiple addition of colours/additives

Technical and electrical data

Mixing ratio	variable
Colour metering	0.3 ... 4 %
Actuation	servo-electric
Electrical data	380 ... 480 VAC, 50 ... 60 Hz (3P + PE), 16 A
Connection LIM machine	24 V
Pneumatic system	R 1/4", 6 bar
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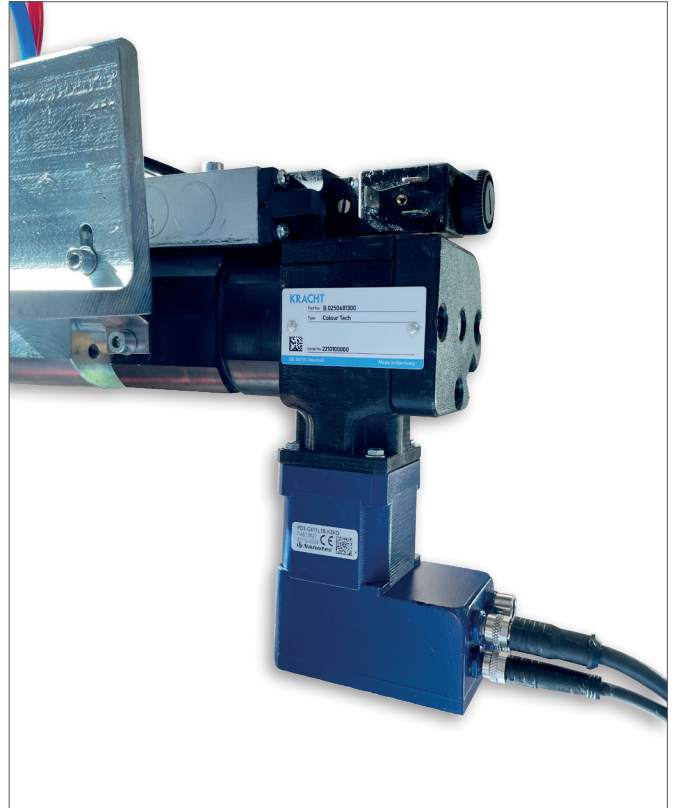
Equipment matrix EASY/SMART/PRO

	EASY	SMART	PRO
Equipment			
Mixing head machine connection	•	•	•
Cooling trays	•	•	•
Follower plate combo 200L / 20L	•	•	•
Easiest operation using a button and potentiometer	•	-	-
7" multi-touch display	-	•	-
Complete operation via 15.6" multi-touch display	-	-	•
Variable mixing ratio adjustable via software (only with E-Drive)	-	•	•
Predictive maintenance	-	-	•
Maintenance intervals (guided maintenance)	-	-	•
Chart and operational data analysis	-	-	•
Configurable HomeScreen per user	-	-	•
Configurable access rights per user	-	•	•
Guided barrel change	-	-	•
Options			
Rolling device and barrel bottom support	-	•	incl.
Automatic pump venting	-	•	incl.
1 liter pressure container for paint with level indicator	•	•	•
10 liter paint container with feed pump	•	•	•
Mobile 20 liter paint supply system with agitator	•	•	•
Mobile version	•	•	•
Paint metering with metering valve	•	•	•
Volume meter A + B	-	•	•
Volume meter colour / additive	-	•	•
ColourTech	-	•	•
CPP.reader	-	•	•
Tandem operation	-	•	•
Cloud connection	-	•	•
Interfaces			
Digital EA	•	-	-
EUROMAP 82.3	-	•	•

Components

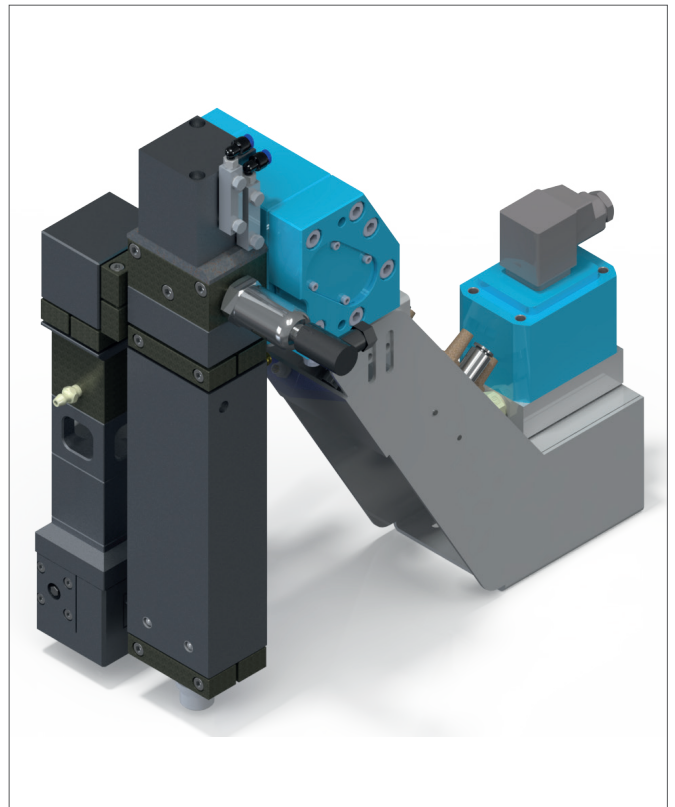
I ColourTech

- > Proportional paint metering valve
- > Percentage amount of colour can be selected in the control
- > Independent regulation according to flow or shot weight
- > Colour metering from 0.02 to 5%
- > For all colours and additives
- > Metering control with volume counter possible



I New mixhead design

- > Vertical static mixer with integrated cooling
- > Modular and compact design
- > Quick static mixer change thanks to Tri-Clamp connection
- > Quick cleaning of the mixing head in < 8 minutes (without paint) or < 15 minutes (with paint)
- > 2-needle suction system
- > Double volume meter for A and B components
- > Optional volume counter for colour
- > Variable mixing ratio possible



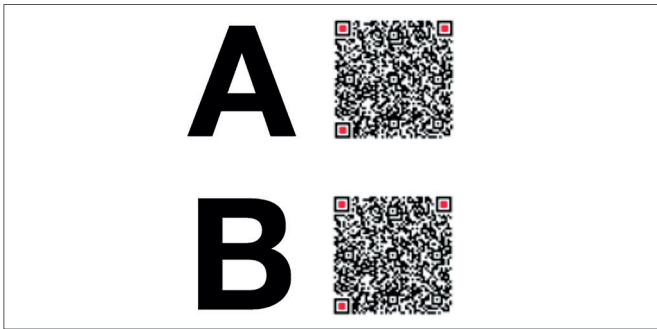
Components

I Colour feed

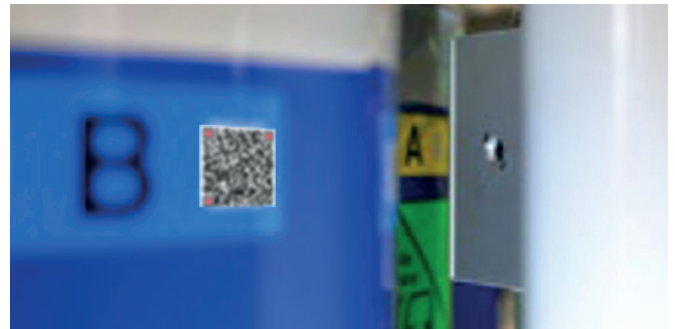
- > Compact paint feed pump
- > Can be used for all additives and colours
- > Feeding from 1 L, 10 L or 20 L barrels
- > Easy and quick cleaning
- > Adaptable to all machines
- > Monitoring of ink supply pressure
- > Mobile paint feed with agitator for filling the local storage containers

I CPP.reader

- > No confusion between A and B, high costs due to production downtime and cleaning are avoided
- > Smooth process reliability: Two camera modules check the letters on the material barrels and only release the process if there is a match
- > The QR code scan enables precise tracking of batch numbers, manufacturing dates, shelf life, etc.



The CPP.reader not only differentiates between A and B, but significantly more information such as batch numbers, production dates, compositions and much more can also be read out.



Small box, big impact:
The CPP.reader keeps the production chain clean.

Service and special solutions

| Service and worldwide support

SERVICE	WORLDWIDE SUPPORT/MAINTENANCE AGREEMENT
Telephone support	Inspection and Maintenance
Training	No unplanned and cost-intensive machine downtimes
Spare Parts	
Short response times	
Remote maintenance possible	
Qualified and trained service technicians	
Retrofit and system optimization	

| Predictive maintenance

- > Predictive maintenance using machine software enables precise maintenance instructions based on operating hours and material throughput (flushing static mixers, degree of wear on pumps, etc.)
- > Digital manual and troubleshooting through Smart Guide
- > Online operator guidance using images and videos (barrel change, change of seals, etc.)

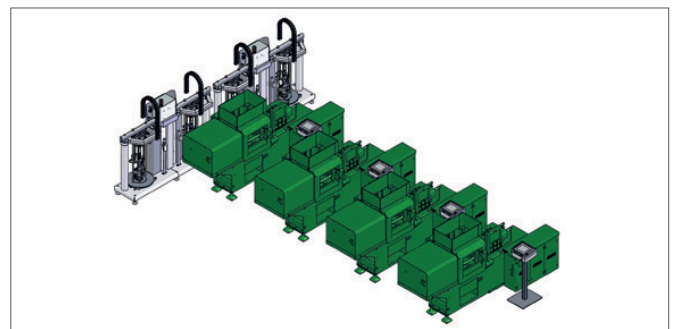
| Special solutions

- > PCM LSR with tandem feed - Here up to 4 mixing heads can be operated with one feed
- > SilcoStar Mini → for prototype construction, baby plast, material testing, special products e.g. B. RTV injection molding
- > PFM piston dispenser → for high-precision micro shots
 - Possible feeds: cartridges, pressure containers, 20 L hobcock, 200 L barrel
 - Addition of additives or active ingredients including material preparation possible

Example SilcoStar PCM



Non-stop material supply and dosing of a single injection molding machine



Non-stop material supply and parallel dosing of two or more injection molding machines

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Irrtümer und technische Änderungen vorbehalten